NATS (En Route) plc Financial statements Year ended 31 March 2019

Company Number: 04129273

Strategic report Our business

NATS (En Route) plc (NERL)

NERL provides Air Traffic Control (ATC) services to aircraft flying in airspace over the UK and the eastern part of the North Atlantic. It is economically regulated by the Civil Aviation Authority (CAA) within the framework of the European Commission's (EC) Single European Sky (SES) and operates under licence from the Secretary of State for Transport. Further information is provided in the description of our business model.

Our purpose

Advancing aviation, keeping the skies safe.

Our objectives

- Deliver a safe, efficient and reliable service every day.
- Deliver SESAR¹ and transform the business for the future.
- Win and retain commercial business.

Our values

- We are safe in everything we do.
- We rise to the challenge.
- We work together.

 $^{1\,}$ A number of explanatory notes are provided on page 74 of this report.

Financial highlights

Financial year ended 31 March			Change
(£m unless otherwise specified)	2019	2018	%
Revenue	733.0	744.5	-1.5
Profit before tax	86.0	134.2	-35.9
Capital expenditure	150.1	180.8	-17.0
Net debt ^a	168.8	207.3	-18.6
Gearing ^b (%)	25.7%	27.5%	-6.5
Dividends	57.0	56.0	+1.8

→ Profit before tax at £86.0m (2018: £134.2m) was £48.2m less than the prior year mainly reflecting real price reductions to our customers, and an investment in additional staff to meet the growth in air traffic volumes and to progress our technology change and airspace programmes.

Deliver a safe, efficient and reliable service every day

- → We handled 2.54 million flights (2018: 2.52 million), 1.2% more than last year, and maintained our safety record with no risk-bearing Airprox² attributable to NERL (2018: nil).
- → En route delay per flight for the 2018 calendar year was 12.5 seconds (2017 calendar year: 6.2 seconds).
- → We enabled additional annual fuel savings for airline customers equivalent to 113,700 tonnes of CO₂ emission reductions (2018: 273,600t restated for modelling accuracy and updated traffic forecasts). 94% of our own energy consumption is provided by renewable energy.
- → We responded to the Civil Aviation Authority's (CAA) draft Reference Period 3 (RP3: 2020-2024) National Performance Plan proposals. We cannot accept these without important changes and we have put forward alternative proposals to meet the strategic aims of stakeholders while maintaining the integrity of our plan. The CAA will now consider the views of all stakeholders before publishing its decision in the late summer.
- → In March 2019, we commenced operational trials with space-based ADS-B data in our Oceanic operation. This is the first time an oceanic region has had the ability to receive real-time position reports for every aircraft. As well as enhancing safety, it improves capacity and fuel efficiency for customers.

Deliver SESAR and transform the business for the future

- → We completed the deployment of electronic flight strips into our Terminal Control (TC) operation³.
- → We are continuing the implementation of our complex technology and transformation programme plan to deploy new ATC equipment and software in RP3. Alongside modernising airspace, this is necessary for managing the expected growth in air traffic volumes in RP3 and beyond.
- → We presented a study for the modernisation of airspace in the south east to the Secretary of State for Transport which included the technical feasibility of meeting the future capacity requirements of airports in the south east, including a third runway at Heathrow. We have been tasked to create the Airspace Change Organising Group (ACOG) to lead airspace modernisation in RP3.

Excludes derivative financial instruments
 Ratio of the net debt (as defined by NERL's licence) to regulatory assets

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Company Secretary

Richard Churchill-Coleman

Registered office

4000 Parkway, Whiteley, Fareham, Hampshire, PO15 7FL

Registered in England and Wales

Company Number 04129273

Auditor

BDO LLP

Chief Executive's review

Overview

In 2019 we made excellent progress with our strategic objectives achieving each of the priorities we set for the financial year. Particular highlights for me included: the delivery of a safe and resilient ATC service, every day, against a backdrop of growing traffic and while introducing complex new technology; our first use of Aireon's space-based surveillance system; and the development of an ambitious business plan for Reference Period 3 (RP3: 2020-2024) which delivers a balanced set of outcomes for our customers. The CAA is consulting on this plan and we have responded to their draft proposals.

Electronic flight strips

programme.

We safely handled over 2.5 million flights this year, which is a record for the UK, and represents just under 25% of all flights in Europe. While doing this, we completed the deployment into our TC operation of electronic flight strips, a major new electronic system which replaced a paper system. This followed a complex transition plan that we developed with airlines and airports to minimise the impact on their operations. We received very positive feedback from customers and other stakeholders on the manner and timing of this deployment. Electronic flight strips are one of the important enablers to airspace modernisation which we will undertake in RP3, and for this reason we introduced the technology early in our transformation

Automatic Dependent Surveillance-Broadcast (ADS-B)

Until now, customers flying en route across the North Atlantic have received a procedural service reliant on a rigid route structure with speed and separation restrictions and periodic position updates. ADS-B is a surveillance technology in which an aircraft determines its position using satellite navigation and broadcasts this regularly, enabling it to be tracked in real-time.

In March 2019, we started using ADS-B to monitor flights across the North Atlantic and we are now trialling reduced separation standards with NAV CANADA, Canada's Air Navigation Service Provider (ANSP).

During the customer consultation on our RP3 business plan, we discussed how best to deploy ADS-B over the North Atlantic, the busiest area of oceanic airspace in the world with 800,000 flights projected by 2030. Analysis undertaken with NAV CANADA, endorsed by ICAO, projects around a 76% reduction in safety risk. ADS-B also gives customers more flexible routes, enabling fuel savings and reducing CO2 emissions. Airline customers acknowledged these benefits but were concerned that an ADS-B service will mean additional cost. Airports were generally supportive as the technology will help improve transatlantic flows and on time arrivals into UK airports. In its draft RP3 proposals, the CAA acknowledged the safety and efficiency benefits and is considering customer concerns about cost. Our view is that the significant improvements in safety, capacity and environmental performance represent good value and are the right thing to do.

Reference Period 3 (2020-2024)

Last summer we consulted customers on our plan to deliver a safe, high quality and resilient service 24/7 with higher traffic and at lower prices than in RP2. Alongside this we will play a key role in the modernisation of UK airspace and we will upgrade our Air Traffic Management (ATM) service. These will be enabled by the completion of the largest and most complex technology upgrade that we or any of our European counterparts have previously undertaken. These aims were shared across our industry and were strongly supported during our

consultation with customers. The CAA has now published its draft proposals for the UK's National Performance Plan (NPP) for RP3. Whilst we agree with the CAA in several important areas such as safety, the priority for airspace modernisation and the need for satellite-based ADS-B surveillance, we have significant concerns with some key aspects of their other proposals. These would set service performance targets beyond our reach (when the European Union (EU) is setting lesser targets), and would provide insufficient funding for all the resources we need to deliver the day to day service together with our technology and airspace modernisation programmes. If these concerns are not addressed, we would be compelled to focus on provision of the current service and safety, resulting in a delay in the technology and airspace modernisation programmes. Such a delay would create additional longer term costs for our customers that far outweigh the additional resources we have sought for these important programmes. We also have concerns with CAA's proposal for cost of capital, which would lead to materially lower returns for shareholders incompatible with the risks imposed. In our response to the CAA we have provided constructive input on how to achieve the strategic objectives the aviation industry requires while continuing to deliver excellent service performance which is amongst the most cost efficient in Europe.

Technology transformation and airspace modernisation programme

Deploying Single European Sky ATM Research (DSESAR) is a complex technology and transformation programme which, alongside modernising airspace, is necessary for managing the expected growth in air traffic. DSESAR is replacing our many disparate and ageing systems with a single, unified architecture to meet the needs of our

customers, now and in the future. DSESAR is the key enabler for a more efficient use of airspace. It is well advanced and our aim is to deliver this change as swiftly and safely as possible. We will also be applying the lessons learned from the managed transition of electronic flight strips when deploying this new technology.

During our consultation on RP3, customers agreed with our proposals for the modernisation of airspace across the south east and Manchester regions. Not only will this benefit the industry with reduced delays and environmental benefits, it will help pave the way for increased safe access for newer airspace users like drones.

As the experts in ATM, we have been tasked to create ACOG which will lead the airspace modernisation programme. During RP3, this will enable us to coordinate with airports and airlines the modernisation of upper and lower airspace. ACOG will also enable the cross industry coordination of other initiatives on airspace use such as: free route airspace; queue management solutions; and satellite navigation route design.

This year we completed airspace changes at the interface between UK airports and the Channel Islands, implemented new routes to facilitate a new military danger area complex in the North Sea and additional capacity to feed the Clacton sector, one of the most congested parts of our airspace. These are enabling airline fuel savings and increased network capacity.

Drones

Airspace modernisation is also an important enabler to facilitate the safe integration of commercial unmanned aircraft or drones with conventional aviation. Drones offer huge potential benefits to public services and the economy. However, as the number of unmanned aircraft grows, increasing the electronic visibility of drone flights is essential to

keeping the skies safe. Last December's drone incident at Gatwick Airport was not only a serious local issue but one which impacted the whole of UK airspace leading to airline cancellations, delays and aircraft en route being diverted to other airports. The strength and design of the industry's defence against malicious attacks must therefore reflect the need to minimise the impact across the whole UK network.

Brexit

The growth in demand for air travel is generally closely related to the strength of the UK economy. While the full effects of Brexit, in whatever form it is eventually implemented, are unlikely to be understood prior to the start of RP3, the progress of negotiations over the next few months could give significantly more information about its nature and possible impact on the UK economy. In these circumstances, we have asked the CAA to reassess their traffic forecasts before finalising the NPP proposals for RP3. The case for this has been strengthened, given the current uncertainty. We are planning on the basis that measures put forward by the UK and the EU will ensure that flights can continue in any Brexit scenario.

People

Our people are key in delivering our strategy and achieving our vision. Our people and organisation strategy is aimed at ensuring that, as we transform our business and respond to the demographic profile of our workforce, we have the right level of resources and mix of skills we need to achieve our objectives. At the same time, we want our people to feel NATS is an inspiring and inclusive place to work where diversity is valued, within an environment that promotes personal growth and development.

Looking ahead

I expect this summer to be at least as busy as last year's and we will continue our focus on providing a safe and resilient service to all of our customers.

We will also be looking to conclude the RP3 settlement in the autumn, as this will determine our plan for the next five years. We will be looking to the CAA to make important changes to their draft proposals, including providing the right level of resources and flexibility to enable us to achieve the strategic objectives that our industry wants while continuing to deliver one of the best levels of service performance in Europe and, as our proposals set out, at rates of cost efficiency improvement that are even tougher than EU-wide targets. We have seen the results of underinvestment in ATM services in other parts of Europe and the huge impact this has on the travelling public; it is essential that the UK, through NATS, continues to deliver a world class safe service in this pillar of its national infrastructure. Over the coming years we will be deploying new technology which will transform the basis of our service to customers, such as London City Airport and airlines flying across the North Atlantic, and which move us closer to transforming our operational systems into a modern, flexible platform for the future.

Finally, Nigel Fotherby, our Finance Director retires this month after nearly 20 years of service to NATS. I would like to take the opportunity to personally thank Nigel for his support and counsel. His deep understanding of the group's finances and the regulatory framework and his passion for the business and his leadership, have been invaluable to the company, its executive team and to me, and I wish him every happiness in his well deserved retirement.

Martin Rolfe, FRAeS Chief Executive

Strategic report Financial review

Financial review

Profit before tax at £86.0m (2018: £134.2m) was £48.2m lower than last year's result. This mainly reflected the further real price reductions for our en route service in RP2, which offset the benefit of higher air traffic volumes in the year, and the investment we are making in operational staff to meet the growth in air traffic and to progress our technology change and airspace programmes (the latter also resulting in higher non-staff costs). Other factors included a small impact from the adoption of IFRS 15: Revenue from Contracts with Customers, the effect of which is explained below. Partly offsetting these factors were lower staff pension costs.

	£m	£m
2018 profit before tax		134.2
Revenue changes		
Airspace		
UK en route revenue	(3.9)	
Impact of adopting IFRS 15	(2.2)	
Service performance incentive	(2.9)	
Other revenue changes (net)	(1.6)	
	(10.6)	
Other service lines	(0.9)	
		(11.5)
Operating cost changes		
Staff costs	(15.3)	
Non-staff costs	(16.8)	
Depreciation and amortisation, net of grants	(3.6)	
·, · · · · · · · · · · · · · · · · · ·		(35.7)
Finance cost changes		(/
Finance cost changes Fair value movement on derivative contract	(4.0)	
Other net finance costs	(4.3) 3.3	
Other het illiance costs	3.3	(1.0)
		(1.0)
2019 profit before tax		86.0

Adoption of new International Financial Reporting Standards (IFRSs)

The company adopted IFRS 9: Financial Instruments and IFRS 15 in the year. In both cases, the cumulative effects of initial application have been recognised as adjustments to the opening balance sheet, and comparative periods have not been restated. Further detail on the transitional impact of these standards is described in note 31. Overall, the adoption of these IFRSs has not had a material impact on the profit before tax for the year:

	Year ended 31 March 2019			
	As reported		As reported	
	under previous	Impacts of	under IFRS 9	
	accounting	IFRS 9 and	and	
	standards	IFRS 15	IFRS 15	
	£m	£m	£m	
Revenue	735.3	(2.3)	733.0	
Operating costs	(621.1)	(0.1)	(621.2)	
Operating profit	114.2	(2.4)	111.8	
Profit before tax	87.3	(1.3)	86.0	
Net assets	574.5	8.7	583.2	

Net assets have increased by £8.7m. This is mainly due to the accelerated revenue recognition of the recovery of higher defined benefit pension contributions than our economic regulator assumed would be paid in RP1 (2012-2014). This change in recognition also explains the reduction in revenue and profit before tax in the year.

Regulatory return

In the 2018 calendar year, NERL achieved a pre-tax real return of 7.1% (2017 calendar year: 10.9%) compared with the regulatory return of 5.9% assumed in the RP2 Performance Plan. This reflects better revenue from faster growth in air traffic volumes and higher capital expenditure and pension costs than the Plan assumption. These factors were partly offset by the cost of our investment in operational staff and to progress the technology change and airspace programmes. These additional costs will also be incurred in 2019, the final year of RP2. Taking into account higher revenue, but also higher costs, we expect to achieve the regulatory rate of return over the five-year period.

Comparison of reported profit and regulatory return

Profit reported in these financial statements is prepared in accordance with IFRS and policies described in note 2 to these accounts. As described below, the CAA applies an economic regulatory building block model which is mainly cash-based. This can give rise to some significant differences between reported operating profit and regulatory return, mainly due to:

Strategic report Financial review

 lower historical cost depreciation compared with regulatory depreciation which is indexed to inflation; and

 lower accounting pension costs using best estimate assumptions prescribed by accounting standards compared with cash contributions agreed with Trustees, which include a margin for prudence.

Regulatory accounts are also prepared on a calendar year basis. These differences mainly explain why NERL's reported operating profit is some £51m higher than its regulatory profit.

Revenue

Revenue at £733.0m (2018: £744.5m) was £11.5m lower than last year. This reduction mainly reflects the impact of IFRS 15 (see above), further real price reductions for our en route service in RP2 which offset the benefit of higher traffic volumes and a service performance penalty compared with a bonus in the prior year.

Operating costs

	2019	2018
	£m	£m
Staff costs	(332.9)	(317.6)
Non-staff costs	(156.6)	(139.2)
Depreciation, amortisation and impairment	(137.7)	(134.1)
Other operating income	6.0	5.4
Total operating costs	(621.2)	(585.5)

Operating costs at £621.2m (2018: £585.5m) increased by 6.1%. Staff costs of £332.9m (2018: £317.6m) were 4.8% higher. This mainly reflected higher pay and employee share scheme costs partly offset by a lower accrual rate for the defined benefit pension scheme (see below) and lower redundancy. The average number of employees during the year was 3,418 (2018: 3,237) and there were 3,528 (2018: 3,287) employees in post at 31 March 2019. Non-staff costs at £156.6m (2018: £139.2m) were £17.4m higher than the previous year and reflected

the cost of supporting the technology change and

airspace programme.

Depreciation and amortisation increased to £137.7m (2018: £134.1m). This included a full year's charge for electronic flight strips and impairment charges of £4.1m (2018: £4.6m).

Net finance costs and fair value movements

Net finance costs of £22.8m were £3.3m lower than last year (2018: £26.1m), reflecting a reduction in the bond's principal which is being repaid by semi-annual instalments.

A fair value charge of £3.0m (2018: £1.3m credit) was recognised in the year. This related to a change in market value of the index-linked swap liability. This swap was taken out in 2003 as an economic hedge for NERL's revenue allowance for financing charges, which is linked to inflation. The swap is accounted for at fair value with changes in fair value recognised in the income statement. Fair value can be volatile and is sensitive to market expectations of inflation and swap discount rates over the time to expiry of the contract in 2026.

Taxation

The tax charge of £14.2m (2018: £19.8m) includes current tax of £3.6m (2018: £5.4m) and deferred tax of £10.6m (2018: £14.4m). Overall, the charge was at an effective rate of 16.5% (2018: 14.8%). This is lower than the headline rate of 19%, mainly reflecting the deferred tax impact of the reduction in the corporation tax rate to 17% from April 2020 and the lower tax rate on patent box income.

The company's taxes generally arise in the UK, though it undertakes business in other countries. Wherever we operate we organise our operations to pay the correct and appropriate amount of tax at the right time, according to relevant national laws, and ensure compliance with the company's tax policies and guidelines. During the year the company received a refund of UK corporation tax of £1.3m (2018: paid

£5.4m), reflecting claims for R&D allowances. The company also pays other taxes such as employer's national insurance contributions, business rates and the apprenticeship levy, which are significant costs. The NATS group's tax strategy can be viewed at www.nats.aero.

Balance sheet

	2019	2018
	£m	£m
Goodwill	198.3	198.3
Tangible and intangible fixed assets	1,044.4	1,032.3
Other non-current assets	21.6	17.8
Cash and short term deposits	166.1	194.6
Derivatives (net)	(119.7)	(127.0)
Borrowings	(334.9)	(401.9)
Pension scheme (deficit)/surplus	(16.5)	83.5
Deferred tax liability	(99.9)	(111.4)
Other net liabilities	(276.2)	(223.3)
Net assets	583.2	662.9

The decrease in net assets in the year mainly reflects the change in the IAS 19 funding position of the defined benefit pension scheme, which reported a deficit (2018: surplus - see below), as well as retained earnings net of dividends paid in the year.

Capital investment

	2019 £m	2018 fm
SESAR deployment Airspace modernisation Infrastructure Operational systems Other	113.2 7.5 14.4 5.0 8.3	135.9 7.4 16.1 10.8 8.5
Regulatory capex	148.4	178.7
Military systems Other non-regulatory capex	1.6 0.1	1.3 0.8
Capital investment	150.1	180.8

We spent £150.1m (2018: £180.8m) as we continue to make good progress with our technology and transformation programme to deploy new ATC equipment and software in RP3.

Defined benefit pensions

The company bears an economic share of the parent company's final salary defined benefit pension scheme. The scheme was closed to new entrants in 2009 and a defined contribution scheme was put in place. More information on our pension

arrangements is provided in note 28 to the financial statements.

a. IAS 19 charge and funding position

The cost (including salary sacrifice and past service) of defined benefit pensions at £50.5m (2018: £69.5m) reflected a lower accrual rate of 35.9% (2018: 48.6%) of pensionable pay.

IAS 19 pension deficit	£m
At 1 April 2018	83.5
Charge to income statement*	(50.5)
Actuarial gains/(losses):	
- on scheme assets	87.6
- on scheme liabilities	(213.2)
Employer contributions*	76.1
At 31 March 2019	(16.5)
Represented by:	
Scheme assets	3,555.2
Scheme liabilities	(3,571.7)
Deficit	(16.5)

* including salary sacrifice

At 31 March 2019, the company's share of the NATS defined benefit scheme liabilities exceeded its assets by £16.5m (2018: £83.5m surplus) as measured under International Accounting Standards (IAS 19) using best estimate assumptions. The real yield on AA corporate bonds used to value pension obligations decreased by 30 basis points during the year, which increased liabilities by more than the growth in the scheme's assets. The size of the scheme relative to the company means changes in financial market conditions can have relatively large impacts on the results and financial position.

b. Trustee valuation and funding obligations

The funding of the defined benefit scheme is subject to agreement between the company's parent (as the employer) and the scheme's Trustees based on the outcome of their formal valuation. This valuation uses a wide range of financial and demographic assumptions for measuring pension liabilities and legislation requires a margin for prudence. As a result, the Trustees' valuation gives a different outcome to the valuation under IAS 19 for the company's financial statements.

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The Trustees completed a formal valuation at 31 December 2017 which reported a funding deficit of £270.4m (NERL's economic share of this deficit is c£204m). The scheme's actuary also determined that the cost of employee benefits accruing in future was 41.8% of pensionable earnings (excluding salary sacrifice), and contributions will reflect this from January 2020. Trustees agreed to maintain the recovery plan to repair the deficit by December 2026. This means the company's parent will make deficit contributions of £41.8m in the 2019 calendar year and £25.4m from 2020, increasing by 2.37% in each of the following three years. These contributions, with assumed investment outperformance, are expected to restore the funding position by December 2026. NERL's economic share is c75%.

NERL's contributions are higher than the regulator assumed for RP2. To the extent that this was caused by changes in financial market conditions, we expect to recover these through higher prices in RP3 and in subsequent reference periods.

Net debt and cash flow

	Cash and short-term investments	Borrowings	Net debt
Balance at 31 March 2018 Cash flow Non-cash movements	£m 194.6 (28.5)	£m (401.9) 67.9 (0.9)	£m (207.3) 39.4 (0.9)
Balance at 31 March 2019	166.1	(334.9)	(168.8)

At 31 March 2019, the company had borrowings of £334.9m (2018: £401.9m) and cash and short-term investments of £166.1m (2018: £194.6m). Net debt decreased by £38.5m to £168.8m (2018: £207.3m). At 31 March 2019, the balance outstanding on NERL's bond was £336.2m (2018: £381.3m). NERL had no outstanding bank loans (2018: £nil) but has available bank facilities of £400m, which expire in July 2022. More information is provided in note 17 to the financial statements.

The company generated £277.6m (2018: £356.3m) from its operating activities. This mainly reflected

lower cash receipts than the previous year and higher supplier payments, which were partly offset by lower tax payments and pension contributions reflecting a lower pensionable payroll for the defined benefit scheme. The cash from operations financed the company's capital investment and its debt service obligations.

Going concern

The company's business activities, together with the factors likely to affect its performance and financial position, its cash flows, liquidity position and borrowings are set out in this Strategic report. In addition, note 20 to the financial statements describes the company's objectives, policies and processes for managing its capital and its financial risks; and details its financial instruments and hedging activities.

At 31 March 2019 the company had cash of £166.1m and access to undrawn committed bank facilities of £400m that are available until July 2022. The company's forecasts and projections, taking account of reasonably possible changes in trading performance, show that the company should be able to operate within the level of its existing facilities for the foreseeable future. NERL also benefits from some protections against traffic volume risk afforded by its price control conditions. As a result, the directors believe that the company is well placed to manage its business risks.

The directors have formed a judgement that, taking into account the financial resources available, the company has adequate resources to continue to operate for a period of at least twelve months from the date of approval of the financial statements, and have therefore adopted the going concern basis in the preparation of the financial statements.

Nigel Fotherby, Finance Director

Safety

Safety performance

We maintained our safety performance this financial year, with no category A or B Airprox event attributable to NERL (2018: nil). This was achieved while handling a record number of flights and completing last summer the deployment of electronic flights strips into TC.

We continue to meet the three safety performance targets set for the end of RP2 by the UK and European regulators in the SES performance scheme, which are based on: the effectiveness of safety management; the use of the Risk Analysis Tool (RAT⁴) to assess the severity of safety events; and the extent of Just Culture training.

Additional to the EU safety targets, NERL uses internal targets and the RAT to monitor its internal safety performance and further analyse the severity and risk of air traffic events. The internal targets for RP2 were set against a lower forecast of traffic than we continue to experience, resulting in their achievement being very challenging. Although our control centres experienced some of their busiest days this year, we were able to achieve an improvement in safety performance. On a 12-month rolling basis, for calendar year 2018, we achieved a RAT score of 34.1 RAT points (calendar year 2017: 43.5 RAT points) per 100,000 movements, relative to a stretching internal target of 29.0.

This reflects a combination of factors including the management of changes in the operation and targeted safety improvement activities. The deployment of electronic flight strips contributed to a reduction in RAT points relating to the TC operation, which is now a less tactical operation than previously, reflecting a reduction in controller workload and an improved framework for decision

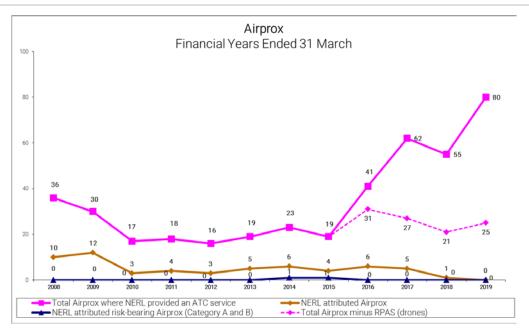
making by operational supervisors which was developed during the deployment of electronic flight strips. Also, although the overall rate of traffic growth was less than the prior year, there was significant variation across the operation and between different sectors of airspace. The safety improvement actions, particularly in these busier sectors of airspace, played a material part in our improvement in safety performance.

The number of Airprox events (see graph) has increased significantly since 2014 with events associated with Remotely Piloted Aircraft Systems (RPAS), or drones, accounting for almost all of the increase. This reflects the continued growth of drone activity in airspace controlled by NERL and across the UK generally. Drone sightings not resulting in an Airprox event have also increased steadily over time and the true number of drone infringements into controlled airspace, many of which go undetected, remains unknown.

Safety improvements

The number of drone incidents is continuing to increase and the potential for these to impact the airspace network was demonstrated by the incident at Gatwick Airport. We are continuing to engage directly with the CAA and with our industry partners to educate drone users and to develop solutions for their safe integration into UK airspace. Since the Gatwick Airport incident, the Department for Transport (DfT) has introduced new legislation that expands the range of flight restriction zones around all aerodromes, as well as increasing police enforcement powers. Also, in order to better manage any future disruption, we have improved procedures and guidance for those airports at which we provide an ATC service.

In response to a growth in demand from airspace users (other than commercial airlines) for access to



controlled airspace, and to new legislation restricting drone operations within the vicinity of airports, we have implemented the Airspace User Portal. This provides users and approving authorities, including NATS, with a more efficient and automated flight planning application and approval process. It also provides NERL and other authorities with a clear understanding of drones which have been approved to operate in controlled airspace and to distinguish these from unauthorised operators.

The drone safe website is now the source of all consumer-focused drone resources and there are now 100,000 users of the Drone Assist Application, providing recreational drone pilots with assistance in identifying areas of restricted airspace. Our partnership with Sky Futures has continued to deliver expert commercial drone training to the growing commercial drone sector and to the emergency services. These initiatives support the safe integration be achieved by currently available alternative means. of drones with conventional aviation.

We continue to support the CAA's initiatives to reduce infringements of controlled airspace. This includes participating in all the local airspace infringement teams where NERL provides ATC services in the vicinity of the aerodrome.

Our main focus has been supporting and influencing the CAA's strategy for the adoption of interoperable electronic conspicuity solutions in areas of high infringement activity. The CAA has indicated that electronic conspicuity will be a key enabler of future airspace development, delivering improved safety, increased flight efficiency and broader airspace access and capacity.

Our plan to bring safety and capacity benefits to oceanic airspace by deploying a space-based surveillance system (ADS-B) was discussed extensively with airlines through the RP3 consultation. For safety reasons, the horizontal separation standard between aircraft flying at the same altitude in oceanic airspace is greater than for aircraft flying in UK airspace, where a network of ground-based radar enables monitoring in real-time. Deployment of space based ADS-B will deliver safety benefits which cannot

Regulatory environment

NERL is subject to economic regulation under the European Commission's Single European Sky (SES) Performance Scheme for Air Navigation Services. The impact of Brexit on these arrangements remains unclear. However, the UK's Transport Act 2000

provides a national regulatory framework if the SES Performance Scheme no longer applied.

For the time being, the UK must still develop a performance plan and targets consistent with EU-wide representations to the UK's DfT before submission to targets set by the European Commission (EC) in preparation for RP3. The European regulatory framework for the SES Performance Scheme for RP3 was set in December 2018 and EU-wide targets for safety, capacity, environment and cost efficiency set in April 2019.

NERL provided a business plan for RP3 to the CAA in October 2018, which followed consultations with customers last summer, and in February 2019 the CAA published for consultation the draft RP3 NPP. Our analysis of the NPP is that, if we were to accept it as currently constructed, we would be unable to meet our licence obligations in RP3. The NPP proposals: a) increase targets across a broad range of areas, beyond levels in our business plan that are already stretching and more than meet the EU-wide targets; b) provide insufficient funding for the resources that we need to deliver the service and our technology and airspace modernisation programmes; and c) propose materially lower returns for shareholders. In our view, the CAA's proposals mean that the core outcomes of our plan will be unachievable within the timescales of RP3.

Therefore, in our response to the CAA's consultation we have made clear that we cannot accept the CAA's proposals in their current form without important changes. In order to engage as constructively as possible, we set out a number of alternative proposals for the NPP in our response, which would enable us to achieve the strategic objectives that our industry wants while continuing to deliver one of the best levels of service performance in Europe. This would all be done at rates of cost efficiency improvement that exceed EU-wide targets for both RP2 and RP3.

We expect the CAA's Board to reach a decision on the NPP in mid-July 2019 with publication in September 2019, with the opportunity for all stakeholders to make the EC. This will then be followed by a statutory consultation on modifications to NERL's licence required to implement licence changes for RP3, which will require NERL's agreement.

Outlook for air traffic volumes

The current operating environment for ATM in the UK is defined by the highest traffic volumes we have experienced; a trend which is set to continue in the coming years.

We have managed significantly more flights in RP2 than was assumed when the RP2 plan was developed. In the 2018 calendar year we handled around 5.6% more traffic than the RP2 Performance Plan forecast. Over the five years of RP2 we estimate that traffic will have grown by 13.9%, and will be 4.5% higher than the RP2 Performance Plan for this period.

We are forecasting further annual growth in UK and oceanic flights during RP3. Annual UK flights are forecast to rise by an additional 11.1% in RP3 to 2.8 million. This forecast reflects a slowing in the rate of annual growth, mainly as a result of airport capacity constraints within the UK.

While UK GDP is not directly correlated with traffic growth, it is a significant driver of disposable income and economic prosperity which results in higher passenger demand. There is significant uncertainty around the economic forecasts for the years to 2024, affecting our RP3 plan. This is particularly the case given Brexit and the effect this may have on the UK economy over the coming years. For this reason we have asked the CAA to reassess their traffic forecasts before finalising the NPP proposals for RP3.

People

One of our priorities for the year was the continuing focus on our people. In particular, to ensure our people have the skills required to deliver today's operational service as well as the right mix of capabilities for the future as we develop the technology that drives our operation, and that we manage our people through this change.

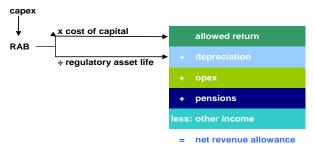
Our People and Organisation Strategy aims to attract, retain and reward employees with the talent we need both now and in the future while ensuring that we continue to develop exciting careers and enhance the skills of our current workforce. Our culture must be open, inclusive and supportive to ensure that we remain a high performing organisation as we evolve. In transforming our operation we will require specific skills, including those in digital and cyber technologies which are highly sought after in the market. We are also developing strategies to meet the needs of the future workforce, such as providing more flexible careers and online learning opportunities, with career planning activity to ensure we effectively manage replacing skills as long-serving employees retire. This year we re-designed our process for recruiting air traffic controllers (ATCOs) to enable us to meet future traffic growth and effectively manage expected retirements over the next few years. We continue to focus on improving our management of employee relations, with a programme that enhances management capability at all levels, focusing on joint problem solving and dispute avoidance through our conflict resolution approach and training programme. This supports valuable and effective dialogue with our unions ensuring employees have a meaningful voice in the decisions that are taken.

We have also improved our leadership development with particular focus on those identified through our talent process as having growth potential, with targeted, accelerated development and assessment opportunities that will support their future careers and enhanced contribution. Our focus remains to develop leadership capability at all levels.

More broadly, we are continuing to encourage young people to consider careers in aviation. We are a corporate member of the WISE campaign, a network of over 200 companies across different industries taking action to support women in STEM. Finally, we partnered with the Jon Egging Trust charity. Our mutual links to aviation, our passion for inspiring young people around technology and for supporting local communities makes this a great partnership. We are actively participating in the Trust's programmes, which also gives NERL employees the chance to gain new experiences.

Our business model

NERL is the sole provider of ATC services for aircraft flying en route in UK airspace and the eastern part of the North Atlantic. It is economically regulated by the CAA within the framework of the EC's SES and operates under a licence granted under the Transport Act 2000. En route, London Approach and North Sea helicopter advisory services are regulated by this licence. NERL also provides the MOD with engineering, surveillance and communications services. All of these activities are reported within Airspace. The CAA establishes revenue allowances for NERL's economically regulated activities for a reference period which remunerate NERL's efficient investment (capex), operating costs (opex), pensions and an allowed return on the capital invested in the Regulatory Asset Base (RAB) to recover the cost of capital. The RAB represents the value ascribed to the capital employed in the regulated businesses. NERL's income from other activities is deducted under a 'single till', leaving a net revenue allowance. A price per service unit is set to recover this based on forecast traffic for the reference period. This model is illustrated below.



The price control for RP2 was based on revenue allowances of £2.7bn (expressed by the CAA in 2012 prices) and provides for a real pre-tax cost of capital of 5.9%. The CAA also sets targets, and provides incentives, for service and environmental performance. It sets a gearing target of 60% of

net debt to RAB and cap of 65%. If regulatory and other assumptions are borne out in practice, then NERL would earn a return of 5.9% p.a. It can earn additional returns if it outperforms the CAA's assumptions by being more cost efficient, by financing its business at lower cost, if traffic volumes (after risk sharing - see below) are higher than forecast or if it outperforms service targets. NERL would earn lower returns if the opposite applied.

The EC legislation provides mechanisms which mitigate the impact of certain variations in traffic volumes, inflation and cash contributions to the defined benefit pension scheme from the level assumed. Charges are adjusted on a year 'n+2' basis or in subsequent reference periods, depending on the cause of variation.

The price control for RP3, including the real pretax cost of capital and targets, and incentives, for service and environmental performance is subject to the CAA's review and decision.

Our business priorities

We set a number of priorities for 2018/19 to focus our employees on the year ahead. These were:

Priorities for 2019	Achieved
Provide safe and resilient air traffic services	√
from our centres	•
Continue to focus on our people and	✓
employee relations as we transform our	
infrastructure	
Deliver electronic flight strips into full	✓
operational service in Terminal Control	
Develop a plan for RP3 that delivers a	✓
balanced outcome for all of our stakeholders	
Deploy the next phase of airspace	✓
modernisation changes (sectors in the North	
Sea and lower Scottish airspace around	
Edinburgh and Glasgow airports)	

Our priorities for financial year 2019/20 are:

- Provide safe and resilient air traffic services from our centres;
- Use space-based ADS-B to support our air traffic service in the North Atlantic;
- Agree the RP3 regulatory settlement with the CAA for our services from 2020 to 2024;
- Receive the final operational Prestwick build of our new iTEC tool, a key part of our DSESAR programme, ready for testing, by March 2020;
- Drive airspace modernisation including the delivery of the network airspace designs needed to support the London Airspace Modernisation Project (LAMP);
- Invest in our people by launching a new digital workplace and intranet to improve how we collaborate, communicate and stay connected.

Principal risks and uncertainties

The operational complexities inherent in the business leave NERL with a number of significant risks to manage. Our risk management process has identified the key risks that the Board believes are likely to have the most significant potential impact on our business, financial position, results and reputation based on the severity and likelihood of risk exposure. Risks are reviewed and re-assessed regularly. The Board has carried out a robust assessment of the principal risks facing the business, including those that would threaten its business model, future performance, solvency or liquidity. The list is not intended to be exhaustive and reflects the Board's assessment as at the date of this report.

The company focuses on mitigating these risks, although many remain outside of our control – for example changes in regulation, security threats, environmental factors and the impact of longevity and financial markets on pension funding.

Safety: the risk of an aircraft accident

A failure of NERL air traffic management controls that results in an accident in the air or on the ground would significantly impact NERL and its reputation. The reputational damage could result in the loss of future contracts and a reduction in revenue. If notice were given by the Secretary of State requiring NERL to take action as a result of the accident and NERL were unable or failed to comply then ultimately this could result in revocation of NERL's licence.

As a provider of a safety-critical service, safety is the company's highest priority. To further embed our existing safety culture across the organisation and to mitigate safety risk, NERL has developed a Strategy for the Future Safety of ATM and currently supports this with a three-year rolling Safety Plan. The company also maintains an explicit Safety Management System. The latter includes investigations and reviews of operational safety performance and individual incidents to identify and respond to contributors to safety risk.

Maintaining continuous operations

a. Operational contingency

A loss of service would result in a loss of revenue as flow management procedures would be introduced to maintain safe separation. The extent of financial loss would depend on the time necessary to resume a safe service and the resultant level of air traffic delay. NERL has contingency arrangements which enable the recovery of its service capacity.

b. Operational systems resilience

Operational service provision is increasingly dependent on the performance and resilience of engineering systems, including communications, surveillance and flight data infrastructure. A number of mechanisms exist to identify systems resilience risks through an ISO55001 compliant Asset Management system. These include regular checks of system health through structured reviews with evidence-based outcomes. In addition, tactical issues are assessed as a matter of course following engineering updates to NATS' Safety Tracking and Reporting System to determine whether immediate escalation is required and to identify any emerging trends requiring investigation.

Political environment and economic regulation Policy decisions by the regulator, the UK Government and the EC directly affect our

businesses. Changes in policy may impact on the company's ability to meet the requirements of the UK and EC's aviation policies. We seek to mitigate this risk by providing independent input to policy studies, lobbying for policy guidance and taking a

leadership role where we believe this is required (such as UK airspace policy and airspace modernisation) and responding to industry consultations. We outlined earlier in this report the importance of proceeding with airspace modernisation and that we will take on a broader project management and coordination role for modernising flight paths both in airspace above 7,000 ft and airspace below this level, which remains the responsibility of others to design and deliver. We will need the engagement and full support of Government, the CAA and industry to ensure this is achieved. If this does not proceed in a timely manner, supported by clear government policy, then UK airspace will reach capacity limits causing increasing delay and constraining aviation growth.

Also, the company's air traffic services operate under a European regulatory regime which requires key performance targets to be met.

Failure to meet these safety, service, environment and efficiency targets could damage our reputation and lead to even more challenging regulatory arrangements.

NERL's current environment and capacity targets were based on an RP2 investment plan that included the implementation of lower airspace change in the London area. Industry consensus was that this is not possible during RP2 due to factors beyond NERL's control. The company is seeking to mitigate regulatory risk by aiming to achieve its RP2 targets through equivalent environmental and fuel saving benefits via a package of other airspace changes that have industry support.

Defined benefit pension scheme

Adverse movements in the value of scheme assets and liabilities arising from factors such as lower investment returns, lower real interest rates

and improving life expectancy may increase the size of the funding deficit and result in significant contributions to fund pension benefits. The scheme was closed to new entrants in 2009, pensionable pay rises are capped and future service benefits are linked to the Consumer Prices Index. NERL regularly reviews the scheme's funding position and is consulted by Trustees on the design of risk reduction strategies. Also, subject to regulatory review, NERL is able to recover increases in contributions from changes in unforeseen financial market conditions. The Trustees completed a formal valuation as at 31 December 2017. This reported a reduction in the funding deficit but with an increase in the cost of future service benefits. Deficit repair

The directors monitor the funding position of the scheme. The company's financing arrangements and cash reserves, its projected operating cash flows and mechanisms within the established economic regulatory framework for recovery of such costs enable the company to meet the contributions required.

contributions will reduce from 1 January 2020.

The CAA is consulting on NERL's RP3 business plan, which reflected the outcome of the 2017

valuation.

Industry outlook and the impact of Brexit

Poor market and economic conditions can reduce NERL's revenues to levels below those assumed by the economic regulator for a reference period. This in turn could impair shareholder returns.

NERL monitors the key industry indicators on a monthly basis against RP2 forecasts and has taken action in the past to realign its cost base with lower revenues. NERL has traffic volume risk-sharing arrangements that mitigate revenue reductions.

In the short term the continuing uncertainty over the UK's decision to leave the EU could affect the demand for air travel and the volumes NERL handles, though traffic volume risk-sharing mitigates the impact. Also, in responding to their consultation, we have asked the CAA to reassess their traffic forecasts for RP3 to take account of the likely impact of Brexit, including a no deal, before finalising the NPP proposals for RP3. Over the longer term, the impact of Brexit depends significantly on the type of relationship that is forged between the UK and the EU. An important consideration for NERL is the extent of participation in the SES and the legislation governing the economic regulation of NERL. Under the UK Transport Act 2000 the CAA has a duty to ensure that NERL does not find it unduly difficult to finance its activities. Such a duty is not provided for in SES legislation. After leaving the EU, we expect that the UK will no longer be able to participate, with a vote, in the process of drafting and approving SES legislation. This could mean NERL, uniquely in the UK, being economically regulated by a body in which the UK does not vote. We will therefore be keeping the implications of Brexit developments under review with the relevant Government departments and the CAA. A detailed review of NERL's preparedness for Brexit was undertaken during the year and mitigating plans were developed and are being progressed, including how we support EU nationals employed in the UK and mitigate risks to our supply chain.

Security: electronic and other external and internal threats

Malicious attack, sabotage or other intentional acts, including breaches of our cyber security, could damage our assets or otherwise significantly impact on our service performance.

NERL seeks to mitigate these risks through its business continuity controls, employee awareness training and cyber and physical security processes and procedures, including monitoring political stability and security risks in countries where it conducts business.

The company has enhanced the physical security of its principal sites and is continuing to enhance its cyber security processes and controls. The company maintains a close liaison with the relevant Home Office Constabularies as well as Government security agencies and departments including security advice from the Centre for the Protection of National Infrastructure (CPNI).

Employee relations and staff resourcing

The deployment of technology through the DSESAR programme and the company's response to the challenging competitive environment in the UK and overseas will require changes across our organisation. Changes of this nature have the potential to create challenges in employee relations if not managed sensitively, with a corresponding impact on our service performance. Therefore, every effort is being made to continue to build and sustain good employee relations, including joint working groups with union representatives as part of an employee relations improvement project.

A people and organisation strategy is being implemented to ensure we have the right numbers of staff and mix of skills in future to meet our strategic objectives, particularly given the demographic profile of our workforce today.

Technology

The complex deployment of new DSESAR technology and retirement of legacy systems could affect our ability to maintain service levels during transition and require additional costs to sustain legacy systems and support deployment

during this period. We maintain good programme governance and risk management processes overseen by the executive and Board, and Transformation Review Committee.

Financial risks

In addition to the top risks set out above, the main financial risks of the company relate to the availability of funds to meet business needs (including meeting obligations to the pension scheme), the risk of default by counterparties to financial transactions, and fluctuations in interest and foreign exchange rates. A detailed description of each of these risks and specific mitigations are set out in note 20.

Non-financial risks

A number of other non-financial and nonoperational risks are described in the responsible business statement presented in the annual report of NATS Holdings Limited.

Service line performance

We organise our activities according to service lines, which reflect the customer groups to which we provide our products and services. The principal financial performance measures are revenue and contribution, which reflects the operating costs which managers are able to influence directly. A reconciliation of service line contribution to operating profit is provided in the notes to the financial statements.

Airspace

	2019	2018
Financial performance:		
Revenue from customers (£m)	714.7	735.1
Other revenue: EU funding passed to customers (£m)	9.7	-
Revenue from other sources (£m)	4.2	4.1
Total revenue (£m)	728.6	739.2
Service line contribution (£m)	313.3	344.5
Capital expenditure (£m)	150.0	180.0
Operational performance:		
Flights handled ('000s)	2,544	2,515
Risk-bearing airprox (no.)	nil	nil
Average delay per flight (seconds)	11.5	7.2
Average delay per flight (seconds)*	12.5	6.2
Environmental efficiency (3Di score)*	29.2	29.6

^{*} for the calendar year to 31 December.

Airspace (see Our business model on page 15 for an explanation) generated revenue of £728.6m compared with £739.2m in the prior year. This mainly reflected real price reductions required by the RP2 Performance Plan, which benefited customers, and offset the growth in volume of flights handled this year.

			Year on
			year
	2019	2018	change
	('000s)	('000s)	%
Chargeable Service Units	12,167	11,674	4.2%
Total UK traffic (flights):			
Domestic	377	389	(3.1%)
North Atlantic	400	383	4.4%
Other	1,767	1,743	1.4%
Total	2,544	2,515	1.2%
Oceanic traffic (flights):			
Chargeable flights	502	494	1.6%

Airspace incurred a small service penalty of £0.3m (2018: £2.6m bonus) for failing to meet its 2018 calendar year regulatory targets for delay. Attributable average delay per flight at

12.5 seconds was higher than the target of 10.8 seconds. Much of this additional delay was anticipated as a result of the transition to electronic flight strips. This technology is an important enabler to the airspace modernisation we will undertake in RP3 and for this reason we introduced this early in our transformation programme. In order to ensure the safe transition agreed last year with airlines and airports, we applied flow regulations to traffic in the affected airspace sector for a short period after deployment. This added 4.8 seconds per flight of NERL attributable delay to our underlying service performance of 7.7 seconds per flight. Overall, for the financial year, 98.9% (2018: 99.3%) of flights experienced no air traffic delay.

Our flight efficiency (the environmental performance of our network) was within the economic regulator's target range. In addition, Airspace enabled CO_2 savings of 113,700 tonnes (2018: 273,600 tonnes restated), which is equivalent to fuel savings of 35,750 tonnes (2018: 71,721 tonnes), worth £18.4m (at an average fuel price for the financial year of £515 per tonne).

Service performance: calendar year to	20	18	2017		
date	Target	Actual	Target	Actual	
C1: avg. En route delay at FAB level					
(seconds)	15.6	16.9	15.6	9.7	
C2: avg. delay per flight (seconds)	10.8	12.5	10.8	6.2	
C3: delay impact (score) ⁵	26.0	17.0	27.0	12.7	
C4: delay variability (score) ⁶	2,000.0	16.1	2,000.0	0.6	
C3Di: 3Di metric (score) ⁷	26.7-29.5	29.2	27.5-30.3	29.6	

The C1 metric is a Functional Airspace Block (FAB) level target introduced for RP2 C3 target is the C3 Upper target adjusted for traffic based CY 2018 actual traffic.

Overall, Airspace contribution of £313.3m (2018: £344.5m) was 9.1% lower. This mainly reflects the real price reductions in RP2 and the investment in additional staff to meet both the growth in air traffic volumes, which has been greater than the RP2 Performance Plan

assumed, and to progress our technology change and airspace programmes.

Other Service lines

	2019	2018
Financial performance:		
Revenue from customers (£m)	4.4	5.3
Revenue from other sources (£m)	-	
Total revenue (£m)	4.4	5.3
Service line contribution (£m)	3.5	4.2
Capital expenditure (£m)	0.1	8.0

Other Service lines include defence, consultancy and information services.

Revenue from these activities at £4.4m (2018: £5.3m) was £0.9m lower than the prior year and service line contribution at £3.5m (2018: £4.2m) was £0.7m lower.

The Strategic report was approved by the Board of directors on 27 June 2019 and signed by order of the Board by:

Richard Churchill-Coleman

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Secretary

Report of the directors

The directors present their annual report on the affairs of the company, together with the financial statements and the auditor's report for the year ended 31 March 2019.

A review of the company's key business developments in the year and an indication of likely future developments is included within the Strategic report.

Information about the use of financial instruments by the company is given in note 20 to the financial statements.

Dividends

The company paid two interim dividends of £28.5m (£2.85 per share) during the year, totalling £57.0m (2018: £56.0m). The Board recommends a final dividend for the year of £nil (2018: £nil).

In May 2019, the Board approved and the company paid an interim dividend of £29.0m (£2.90 per share) for the year ending 31 March 2020.

Directors and their interests

The directors of the company at the date of this report, and details of changes made to the Board during the year and to the date of this report are set out below:

Maria Antoniou

Dr Harry Bush CB

Michael Campbell

Nigel Fotherby

Dr Paul Golby CBE

Christopher Hope (resigned 4 October 2018)

Richard Keys

Kathryn Leahy (appointed 31 May 2018)

Hugh McConnellogue (appointed 4 October 2018)

lain McNicoll CB CBE

Gavin Merchant

Martin Rolfe

Louise Street (appointed 29 November 2018)

None of the directors have any interests in the share capital of the company. Interests of the directors in the ordinary shares of the company's parent undertaking NATS Holdings Limited are explained in those accounts.

None of the directors have, or have had, a material interest in any contract of significance in relation to the company's business.

Directors' indemnities

The company has made qualifying third party indemnity provisions for the benefit of its directors which were made during the year and remain in force at the date of this report.

Employees

Contracts of employment with employees are held by the company's parent company, NATS Limited. The company continues its commitment to the involvement of employees in the decision-making process through effective leadership at all levels in the organisation. Employees are frequently involved through direct discussions with their managers, cross company working groups and local committees. Regular employee consultations cover a range of topics affecting the workforce, including such matters as corporate performance and business plans. The NATS CEO maintains high visibility with employees through visits to NATS sites where he talks to them about current business issues and takes questions in an open and

straightforward manner. Also, employees' views are represented through an open dialogue with Prospect and the Public and Commercial Services Union (PCS), the recognised unions on all matters affecting employees. This has been enhanced through the Working Together programme aimed at working towards partnership principles as the basis for our relationship with the Trades Unions. Formal arrangements for consultation with employees exist through a local and company-wide framework agreed with the Trades Unions.

It is the company's policy to establish and maintain competitive pay rates which take full account of the different pay markets relevant to its operations. In return, employees are expected to perform to the required standards and to provide the quality and efficiency of service expected by its customers.

The company is an equal opportunities employer. Its policy is designed to ensure that no applicant or employee receives less favourable treatment than any other on the grounds of sex, age, disability, marital status, colour, race, ethnic origin, religious belief or sexual orientation, nor is disadvantaged by conditions or requirements applied to any post which cannot be shown to be fair and reasonable under relevant employment law or codes of practice.

The company is also committed to improving employment opportunities for disabled people. The company will continue to promote policies and practices which provide suitable training and retraining and development opportunities

for disabled employees, including any individuals who become disabled, bearing in mind their particular aptitudes and abilities and the need to maintain a safe working environment.

The company strives to maintain the health, safety and wellbeing of employees through an appropriate culture, well-defined processes and regular monitoring. Line managers are accountable for ensuring health and safety is maintained and responsibility for ensuring compliance with both legal requirements and company policy rests with the Safety Director.

Going concern and subsequent events

The directors' assessment of going concern is explained in the Financial review section of this report. Subsequent events are disclosed in note 32 to the financial statements.

Directors' responsibilities

The directors are responsible for preparing the financial statements in accordance with applicable laws and regulations.

Company law requires the directors to prepare financial statements for each financial year. Under that law the directors have elected to prepare the financial statements in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union (EU). Under company law the directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the company and of the profit or loss of the company for that period.

In preparing these financial statements,
International Accounting Standard 1 requires
that directors:

- properly select and apply accounting policies;
- present information, including accounting policies, in a manner that provides relevant, reliable, comparable and understandable information;
- provide additional disclosures when compliance with the specific requirements in IFRSs are insufficient to enable users to understand the impact of particular transactions, other events and conditions on the entity's financial position and financial performance; and
- make an assessment of the company's ability to continue as a going concern.

The directors are responsible for keeping adequate accounting records that are sufficient to show and explain the company's transactions and disclose with reasonable accuracy at any time the financial position of the company and enable them to ensure that the financial statements comply with the Companies Act 2006. They are also responsible for safeguarding the assets of the company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

Each person who is a director at the date of approval of these financial statements confirms that:

 so far as the director is aware, there is no relevant audit information of which the company's auditors are unaware; and the director has taken all the steps that he/she ought to have taken as director in order to make himself/herself aware of any relevant audit information and to establish that the company's auditors are aware of that information.

This information is given and should be interpreted in accordance with the provisions of s418 of the Companies Act 2006.

The directors are responsible for the maintenance and integrity of the corporate and financial information relating to the company which is included on the NATS group's website. Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

We confirm that to the best of our knowledge:

- the financial statements, prepared in accordance with IFRS as adopted by the EU, give a true and fair view of the assets, liabilities, financial position and profit of the company;
- the Strategic report includes a fair review of the development and performance of the business and the position of the company, together with a description of the principal risks and uncertainties that it faces; and
- the financial statements, taken as a whole, are fair, balanced and understandable and provide the information necessary for shareholders to assess the company's position and performance, business model and strategy.

Auditor

A resolution to re-appoint BDO LLP as statutory auditor will be proposed at the Annual General Meeting.

Approved by the Board of directors and signed by order of the Board by:

R C-column

Richard Churchill-Coleman

Secretary

27 June 2019

Registered office

4000 Parkway, Whiteley, Fareham, Hampshire,

P0157FL

Registered in England and Wales

Company Number: 04129273

Independent auditor's report to the members of NATS (En Route) plc

Opinion

We have audited the financial statements of NATS (En Route) plc (the 'company') for the year ended 31 March 2019 which comprise the income statement, the statement of comprehensive income, the balance sheet, the statement of changes in equity, the cash flow statement and the related notes to the financial statements, including a summary of significant accounting policies as required by the ISA's. The financial reporting framework that has been applied in their preparation is applicable law and International Financial Reporting Standards (IFRSs) as adopted by the European Union.

In our opinion the financial statements:

- give a true and fair view of the state of the company's affairs as at 31 March 2019 and of its profit for the year then ended:
- · have been properly prepared in accordance with IFRSs as adopted by the European Union; and
- · have been prepared in accordance with the requirements of the Companies Act 2006.

Separate opinion in relation to IFRSs as issued by the IASB

As explained in note 2 to the financial statements, the company, in addition to preparing financial statements in accordance with IFRSs as adopted by the European Union, has also applied IFRSs as issued by the International Accounting Standards Board (IASB).

In our opinion, the financial statements give a true and fair view of the financial position of the company as at 31 March 2019 and of its financial performance and cash flows for the year then ended in accordance with IFRSs as issued by the IASB.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of our report. We are independent of the company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard as applied to listed public interest entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Conclusions relating to principal risks and going concern

We have nothing to report in respect of the following matters in relation to which the ISAs (UK) require us to report to you where:

- the directors' use of the going concern basis of accounting in the preparation of the financial statements is not appropriate; or
- the directors have not disclosed in the financial statements any identified material uncertainties that may cast significant doubt about the company's ability to continue to adopt the going concern basis of accounting for a period of at least twelve months from the date when the financial statements are authorised for issue.

Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) that we identified, including those which had the greatest effect on: the overall audit strategy, the allocation of resources in the audit; and directing the efforts of the engagement team

These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matter

Revenue recognition:

IFRS 15

IFRS 15 is applicable for the first time in the financial statements to 31 March 2019 and includes detailed changes to the principles of revenue recognition and will require changes to disclosures and additional notes on the impact of transition to the new standard. The company has applied transitional adjustments as described in note 31 and has chosen not to restate comparatives. The main changes are detailed in note 31.

Recoverability of the regulatory assets

As detailed on page 45, in determining airspace revenues recognised, management makes key judgements about material revenue allowances that are recoverable or payable in subsequent accounting periods.

How we addressed the key audit matter in the audit

We have reviewed each significant revenue stream to ensure that we concur with the accounting policies applied and that it is accounted for in accordance with IFRS 15 including those relating to the transition to the new standard.

We have reviewed and tested each of the revenue streams to ensure that the revenue is being recognised in line with the company policy and, in the case of Airspace, to ensure that it is in line with the provisions of the air traffic services licence, the regulatory charging mechanisms for the reference period and the RP2 settlement.

We have specifically considered and challenged management over the amounts recoverable or payable as revenue allowances under the EC Charging Regulation.

Pension scheme actuarial valuation:

The company operates a defined benefit pension scheme, which is accounted for in accordance with IAS 19 'Employee Benefits' which requires complex calculations and disclosures.

As detailed on page 45 and in note 28 management makes a number of judgements and actuarial assumptions, with assistance from their actuaries, which have a significant impact on the valuation of pension scheme assets and liabilities shown in the balance sheet and hence on the amounts shown in the income statement and the statement of comprehensive income.

We have reviewed the pension scheme data and accounting treatment and disclosures and considered them in light of the pension assumptions made.

We have worked with our pension specialists to assess the validity of assumptions applied, in particular discount and inflation rates and mortality assumptions and performed a detailed review of the scheme actuary's annual valuation report.

In addition, we have performed audit procedures in order to substantiate the value of the scheme assets. This included selecting a sample of investments held at the balance sheet date and comparing their value to third party asset confirmations and statements.

Key audit matter

Carrying value of goodwill:

In accordance with the group's accounting policies, management has undertaken an impairment review of the carrying value of goodwill by comparison with the recoverable amount. This has resulted in no impairment in the year.

In calculating an appropriate valuation for the recoverable amount of the regulatory business, the premium applied to the regulatory asset base (RAB) continues to be a key judgement.

How we addressed the key audit matter in the audit

We have reviewed and tested management's current assessment of the carrying amount of goodwill.

We have reviewed, with the assistance of our own specialists, the overall methodology, which in accordance with IAS 36 this year is based on fair value less costs of disposal, as it is higher than value in use.

We have also reviewed benchmarking available to support the RAB premium applied in determining the fair value less costs of disposal.

Capital investment programme:

As detailed on page 45 and notes 14 and 15 the company invests significant sums in the sustainment and development of air traffic control infrastructure.

A substantial proportion of the costs incurred are the amounts charged by staff employed by the company which are capitalised to specific projects.

A key judgement is that either time is not appropriately capitalised or the quantum of the labour rate used could be misstated.

In addition management makes judgements around the useful economic lives of currently deployed systems, assesses indicators of impairment and considers feasibility.

We have worked with the project managers outside of the company finance team in order to gain an understanding of the capital projects, and assessed them for impairment factors.

We have tested a sample of capitalised projects which included reviewing the appropriateness of the labour rates being used and the amount of labour time being capitalised per project.

By reviewing useful economic lives to prior years and working with project managers to assess performance to date and expected out turn we have assessed management's judgement of the useful economic lives of currently deployed systems to ensure that the position taken is reasonable.

We have considered management's assessment of any indicators of impairment for a sample of current capital projects carried forward as either tangible or intangible fixed assets.

In addition we have tested a sample of externally generated assets to test existence and that costs are materially accurate.

Our application of materiality

We apply the concept of materiality both in planning and performing our audit, and in evaluating the effect of misstatements. We consider materiality to be the magnitude by which misstatements, including omissions, could influence the economic decisions of reasonable users that are taken on the basis of the financial statements. Importantly, misstatements below these levels will not necessarily be evaluated as immaterial as we also take account of the nature of identified misstatements, and the particular circumstances of their occurrence, when evaluating their effect on the financial statements as a whole.

The materiality we applied to the company equates to 5% of profit before tax (2018: 5% of profit before tax). We consider profit before tax to be the most significant determinant of the company's financial performance used by shareholders.

Materiality for the financial statements as a whole was £4.3m (2018: £5.7m).

Performance materiality is set at a level lower than materiality, which was 75% of materiality totalling £3.23m (2018: £4.28m). In setting the level of performance materiality, we considered a number of factors including the expected total value of known and likely misstatements (based on past experience and other factors) and management's attitude towards proposed adjustments. Performance materiality is set to reduce to an appropriately low level the probability that the aggregate of uncorrected and undetected misstatements in the financial statements exceeds materiality for the financial statements as a whole.

We agreed with the audit committee that we would report to them all individual audit differences identified during the course of our audit above clearly trivial, which for significant components was in excess of £86,000 (2018: £285,500). We also agreed to report differences below that threshold that, in our view, warranted reporting on qualitative grounds.

An overview of the scope of our audit

Our audit was scoped by obtaining an understanding of the company and its environment, including the company's system of internal control, and assessing the risks of material misstatement in the financial statements.

The audit was principally performed in the UK at both the Scottish Accounting Unit, Edinburgh, and Corporate Technical Centre, Whiteley.

We also gained an understanding of the legal and regulatory framework applicable to the group and the industry in which it operates, and considered the risk of acts by the group that were contrary to applicable laws and regulations, including fraud. We designed audit procedures at group and significant component level to respond to the risk, recognising that the risk of not detecting a material misstatement due to fraud is higher than the risk of not detecting one resulting from error, as fraud may involve deliberate concealment by, for example, forgery or intentional misrepresentations, or through collusion. We focussed on laws and regulations that could give rise to a material misstatement in the financial statements, including, but not limited to the Companies Act 2006 and tax legislation.

Our tests included agreeing the financial statement disclosures to underlying supporting documentation, enquiries with management and enquiries of those charged with governance. There are inherent limitations in the audit procedures described above and, the further removed non-compliance with laws and regulations is from the events and transactions reflected in the financial statements, the less likely we would become aware of it. We did not identify any key audit matters relating to irregularities, including fraud. As in all of our audits, we also addressed the risk of management override of internal controls, including testing journals and evaluating whether there was evidence of bias by the directors that represented a risk of material misstatement due to fraud.

Other information

The directors are responsible for the other information. The other information comprises the information included in the annual report, other than the financial statements and our auditor's report thereon. Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of the other information, we are required to report that fact.

We have nothing to report in this regard.

Opinions on other matters prescribed by the Companies Act 2006

In our opinion, based on the work undertaken in the course of the audit:

- the information given in the strategic report and the report of the directors for the financial year for which
 the financial statements are prepared is consistent with the financial statements; and
- the strategic report and the report of the directors have been prepared in accordance with applicable legal requirements.

Matters on which we are required to report by exception

In the light of the knowledge and understanding of the company and its environment obtained in the course of the audit, we have not identified material misstatements in the strategic report or the report of the directors. We have nothing to report in respect of the following matters in relation to which the Companies Act 2006 requires us to report to you if, in our opinion:

- adequate accounting records have not been kept, or returns adequate for our audit have not been received from branches not visited by us; or
- the financial statements are not in agreement with the accounting records and returns; or
- · certain disclosures of directors' remuneration specified by law are not made; or
- · we have not received all the information and explanations we require for our audit.

Responsibilities of directors

As explained more fully in the directors' responsibilities statement, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the directors are responsible for assessing the company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the company or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

A further description of our responsibilities for the audit of the financial statements is located on the Financial Reporting Council's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

Other matters

Following the recommendation of the audit committee in 2014, we were appointed to audit the financial statements for the year ended 31 March 2015 and subsequent financial periods. The period of total uninterrupted engagement is 5 years, covering the years ended 31 March 2015 to 31 March 2019. The non-audit services prohibited by the FRC's Ethical Standard were not provided to the company and we remain independent of the company in conducting our audit.

Our audit opinion is consistent with the additional report to the audit committee.

Use of our report

This report is made solely to the company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the company and the company's members as a body, for our audit work, for this report, or for the opinions we have formed.

Malcolm Thixton (senior statutory auditor)
For and on behalf of BDO LLP, statutory auditor
Southampton
United Kingdom
27 June 2019

BDO LLP is a limited liability partnership registered in England and Wales (with registered number OC305127).

Income statement

for the year ended 31 March

		2019	2018*
	Notes	£m	£m
Revenue	4	733.0	744.5
Staff costs Services and materials Repairs and maintenance	7	(332.9) (47.2) (40.9)	(317.6) (41.3) (37.0)
Depreciation, amortisation and impairment Other operating charges Other operating income	6	(138.0) (68.5) 6.0	(134.5) (60.9) 5.4
Deferred grants released	6	0.3	0.4
Net operating costs		(621.2)	(585.5)
Operating profit	6	111.8	159.0
Investment income	8	2.6	0.7
Fair value movement on derivative contract	9	(3.0)	1.3
Finance costs	10	(25.4)	(26.8)
Profit before tax		86.0	134.2
Tax	11	(14.2)	(19.8)
Profit for the year attributable to equity shareholders		71.8	114.4
Statement of comprehensive income for the year ended 31 March	,		
		2019	2018*
	Notes	£m	£m
Profit for the year after tax		71.8	114.4
Items that will not be reclassified subsequently to profit and loss:			
Actuarial (loss)/gain on defined benefit pension scheme Deferred tax relating to items that will not be reclassified	28 23	(125.6) 21.9	340.3 (61.3)
Items that may be reclassified subsequently to profit and loss:			
Change in fair value of hedging derivatives Transfer to income statement on cash flow hedges Deferred tax relating to items that may be reclassified	23	0.2 (0.9) 0.2	(1.0) (0.8) 0.3
Other comprehensive (loss)/income for the year, net of tax	•	(104.2)	277.5
Total comprehensive (loss)/income for the year attributable to equity shareholders	•	(32.4)	391.9

^{*} The company has chosen not to restate comparatives on adoption of IFRS 9 and IFRS 15. See note 31.

Balance sheet

at 31 March

	Notes	2019 £m	2018* £m
Non-current assets Goodwill	13	198.3	198.3
Other intangible assets Property, plant and equipment	14 15	564.8 479.6	567.6 464.7
Retirement benefit asset	28	-	83.5
Trade and other receivables Derivative financial instruments	16 18	21.6 1.7	17.8 1.2
		1,266.0	1,333.1
Current assets			
Trade and other receivables Current tax assets	16	116.7	121.5 1.7
Short term investments	20	36.4	38.3
Cash and cash equivalents Derivative financial instruments	20 18	129.7 2.5	156.3 1.9
		285.3	319.7
Total assets		1,551.3	1,652.8
Current liabilities			
Trade and other payables	21	(223.2)	(185.3)
Borrowings Provisions	17 22	(42.7) (0.8)	(67.1) (0.2)
Derivative financial instruments	18	(13.6)	(10.6)
		(280.3)	(263.2)
Net current assets		5.0	56.5
Non-current liabilities			
Trade and other payables	21	(162.9)	(155.3)
Borrowings Retirement benefit obligations	17 28	(292.2) (16.5)	(334.8)
Deferred tax liability	23	(99.9)	(111.4)
Provisions Derivative financial instruments	22 18	(6.0) (110.3)	(5.7) (119.5)
		(687.8)	(726.7)
Total liabilities		(968.1)	(989.9)
Net assets		583.2	662.9
Equity			
Called up share capital	24	10.0	10.0
Hedge reserve Special reserve		0.5 34.9	1.0 34.9
Other reserves		9.4	10.5
Retained earnings		528.4	606.5
Total equity		583.2	662.9

^{*} The company has chosen not to restate comparatives on adoption of IFRS 9 and IFRS 15. See note 31.

The financial statements (Company No. 04129273) were approved by the Board of directors and authorised for issue on 27 June 2019 and signed on its behalf by:

Martin Rolfe Chief Executive Nigel Fotherby Finance Director

Statement of changes in equity for the year ended 31 March	Equity attributable to equity holders of the company					
	Share capital £m	Hedge reserve £m	Special reserve ¹ £m	Other reserves ¹ £m	Retained earnings £m	Total £m
At 1 April 2017 (as previously stated)	10.0	2.5	34.9	11.7	267.9	327.0
Profit for the year	-	-	-	-	114.4	114.4
Other comprehensive (loss)/income for the year		(1.5)		(1.2)	280.2	277.5
Total comprehensive (loss)/income for the year Dividends paid	-	(1.5)	-	(1.2)	394.6 (56.0)	391.9 (56.0)
At 31 March 2018 (as previously stated)	10.0	1.0	34.9	10.5	606.5	662.9
At 1 April 2018 (as previously stated)	10.0	1.0	34.9	10.5	606.5	662.9
Adjustment on initial application of IFRS 9 (see note 31)	-	-	-	-	0.2	0.2
Adjustment on initial application of IFRS 15 (see note 31)		-			9.5	9.5
At 1 April 2018 (as restated for IFRS 9 and IFRS 15)	10.0	1.0	34.9	10.5	616.2	672.6
Profit for the year	-		-	-	71.8	71.8
Other comprehensive loss for the year	-	(0.5)	-	(1.1)	(102.6)	(104.2)
Total comprehensive loss for the year	-	(0.5)	-	(1.1)	(30.8)	(32.4)
Dividends paid	-	-	-	-	(57.0)	(57.0)
At 31 March 2019	10.0	0.5	34.9	9.4	528.4	583.2

 $^{^{1}}$ Other reserves arose on completion of the PPP transaction in July 2001. The special reserve arose from a capital reduction in May 2003.

Cash flow statement for the year ended 31 March

	Notes	2019 £m	2018 £m
Net cash from operating activities	25	277.6	356.3
Cash flows from investing activities			
Interest received on short term investments Purchase of property, plant and equipment and other intangible assets Changes in short term investments		1.3 (151.6) 1.9	0.7 (174.8) 1.1
Net cash outflow from investing activities		(148.4)	(173.0)
Cash flows from financing activities			
Interest paid Interest received on derivative financial instruments Repayment of bond principal Repayment of intercompany loan Repayments of obligations under finance leases Index linked swap repayments Bank facility arrangement fees Dividends paid		(20.6) (0.2) (45.2) (22.5) (0.2) (10.1)	(23.7) 0.2 (47.2) - (0.2) (8.1) (0.4) (56.0)
Net cash outflow from financing activities		(155.8)	(135.4)
(Decrease)/increase in cash and cash equivalents during the year		(26.6)	47.9
Cash and cash equivalents at 1 April		156.3	108.4
Cash and cash equivalents at 31 March		129.7	156.3
Net debt (representing borrowings net of cash and short term investments)		(168.8)	(207.3)

1. General information

NATS (En Route) plc (NERL) is a 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 26. The nature of the company'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 company operates.

2. Accounting policies

Basis of preparation and accounting policies

The financial statements have been prepared on the going concern basis as explained on page 10 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 company 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 company 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 is set out in note 31.

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

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 company 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 company 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 company has noncancellable operating lease commitments of £71.4m as disclosed in note 26. We expect these arrangements will meet the definition of a lease under IFRS 16, and hence the company 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£60m and lease liabilities of c£69m, 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 £0.7m 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.

At completion of the Public Private Partnership (PPP) transaction on 26 July 2001, a transfer scheme hived down certain of the operating assets and liabilities of National Air Traffic Services Limited (now NATS Limited) to this company.

In addition, the company entered into a Management Services Agreement with NATS Limited on 25 July 2001. This agreement provides for the provision by NATS Limited of personnel and central services to the company. The cost of central services is recharged on the basis of a fair allocation of costs taking into account the most important drivers for the services provided. The company is responsible for paying to NATS Limited an amount equal to the aggregate of all costs

incurred by NATS Limited in connection with the employment of the personnel together with appropriate staff related costs and expenses and disbursements.

NERL also entered into an Inter-company Services
Agreement on 25 July 2001 with NATS (Services)
Limited (NATS Services). Under this agreement the
company provides NATS Services with the
following services:

- training services;
- radar data services at NATS Services airports;
- engineering and software support services;
- research and development for NATS Services airports division and business development division; and
- other services to NATS Services business development division (for example consultancy and engineering services).

The range of services provided by NATS Services to NERL under the agreement includes:

- North Sea helicopter advisory services;
- air traffic services in certain sectors;
- services to the London Approach service (engineering services and use of communications facilities); and
- miscellaneous other services.

The company commenced trading from 26 July 2001.

Revenue recognition

Revenue is recognised from the transfer of goods or services at an amount that the company 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 the company's air traffic services licence (including volume risk sharing, service performance incentives, costs exempt from risk sharing and inflation adjustments) 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 the company'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 company as the company 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 company's service performance results in bonuses or penalties.

The company 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 company 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 company 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 MOD to share in cost efficiencies relative to the original contract assumption. Amounts due to 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.

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 before 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 the company 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 company 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 company'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.

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 NERL 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 NERL, 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.

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 company'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;
- 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 company 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 company 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 (with a RAB terminal value as a proxy for future cash flows).

If the recoverable amount of an asset (or cashgenerating 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 company has applied the requirements of IFRS 2: Share-Based Payments.

In 2001, the company's parent 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.

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 company provides finance to NATS Employee Sharetrust Limited (NESL) to enable the trust company to meet its obligations to repurchase vested or

eligible shares from employees.

The company's share of 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.

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 company 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 company's financial statements as outlined above, subject to the impact of other developments in the company's tax position which may reduce the beneficial effect of this in the company's tax rate.

Foreign currency translation

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 company enters into forward contracts (see below for details of the company's accounting policies in respect of such derivative financial instruments).

Retirement benefit costs

The Civil Aviation Authority 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 company'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 NATS group and Trustees have introduced a number of pension reforms, as explained in note 28. 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 company has a present obligation as a result of a past event, and it is probable that the company 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.

Financial instruments

Financial assets and financial liabilities are recognised in the balance sheet when the company 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 remeasurement depends on the company's business model for managing the financial asset and its cash flow characteristics.

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

Financial assets:

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

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, twelve 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.

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 company after deducting all of its liabilities.

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

Reserves

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

- The special reserve which arose from a capital reduction in May 2003.
- Other reserves which arose on the completion of the PPP transaction in July 2001.

Derivative financial instruments and hedging activities

The company's activities expose it primarily to the financial risks of changes in interest rates, inflation and foreign currency exchange rates. The company uses interest rate and index-linked swap contracts and forward foreign exchange contracts to hedge these exposures. These are disclosed in notes 18 and 20 to the accounts.

As permitted under IFRS 9, the company 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 company's policies approved by the Board of directors, which provides written principles on the use of financial derivatives. The company 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 company 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, the company'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.

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 strategic partnership agreement (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, The Airline Group (the Strategic Partner) and Heathrow Airports Limited, 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 company 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 company's defined benefit pension scheme which affect the balance sheet position and the company's reserves and income statement. Refer to note 28 of the notes to the 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 company is undertaking a significant capital investment programme to upgrade existing ATC infrastructure. This programme requires the company 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 company also capitalises internal labour where this is directly attributable to the development of assets.

2018*

4. Revenue

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

	2019 £m	2018* £m
Revenue from contracts with customers Other revenue: EU funding passed to UK en route customers (see note 4a) Revenue from other sources: rental and sub-lease income	719.1 9.7 4.2	740.4 - 4.1
Total revenue	733.0	744.5
Other operating income Investment income (see note 8)	6.0 2.6	5.4 0.7
	741.6	750.6

a) Revenue disaggregated by operating segment

The NATS 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, Defence and Other UK Business, 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), impairment of goodwill, profit/(loss) on disposal of non-current assets, employee share scheme (costs)/credits, redundancy costs and R&D expenditure above the line tax credits. A profit of the cost of the cosreconciliation of service line contribution to operating profit is set out below.

Principal activities

Airspace

The following table describes the activities of each operating segment:

This includes all of the company'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 $and \ surveillance \ infrastructure \ and \ facilities. \ Air space \ includes \ air \ traffic \ services \ for \ helicopters \ operating \ in \ the \ North \ Sea, approach$ services for London airports, infrastructure services to the Ministry of Defence for their en route operations and European projects in conjunction with other air traffic organisations.

Other Service lines Other services provided to UK customers including: Defence, providing air traffic control, engineering support and other services to the Ministry of Defence and support to the Aquila joint venture for its Marshall contract; Consultancy, offering airspace development, capacity improvement and training; and Information, providing data to enable future efficiency and flight optimisation.

2010

Segment information about these activities is presented below

	2019		ZU18^			
	External revenue	Intercompany revenue	Revenue	External revenue	Intercompany revenue	Revenue
	£m	£m	£m	£m	£m	£m
Revenue from contracts with customers						
Airspace						
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	Ē	29.2	29.5	=	29.5
Intercompany revenue	=	25.5	25.5	-	25.3	25.3
Total Airspace revenue from contracts with customers	689.2	25.5	714.7	709.8	25.3	735.1
Other Service lines	4.2	0.2	4.4	5.3	-	5.3
Total revenue from contracts with customers	693.4	25.7	719.1	715.1	25.3	740.4
Other revenue: EU funding passed to UK en route customers						
Airspace	9.7	=	9.7	-	=	-
Revenue from other sources						
Airspace	3.1	1.1	4.2	3.0	1.1	4.1
Other Service lines	=	-	-	-	=	=
Total revenue from other sources	3.1	1.1	4.2	3.0	1.1	4.1
Total revenue	706.2	26.8	733.0	718.1	26.4	744.5
*** * * * * *						

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 company's revenues from UK en route services reflect the regulatory revenue allowances for which it is entitled for the services provided in the year.

Intercompany revenue includes revenue for services to NATS (Services) Limited of £26.7m (2018: £26.3m) and to NATSNay Limited of £0.1m (2018: £0.1m).

^{*} The company has chosen not to restate comparatives on adoption of IFRS 15. See note 31.

4. Revenue (continued)

b) Revenue disaggregated based on economic regulation

	2019		2018*			
	External revenue	Intercompany revenue £m	Revenue £m	External revenue	Intercompany revenue £m	Revenue £m
Regulated income	2.11	2	2	2	2	2
Services to UK en route customers London Approach services Services to oceanic en route customers	586.3 13.2 29.2	- - -	586.3 13.2 29.2	605.0 12.7 29.5	-	605.0 12.7 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 Revenue from other sources	64.7 3.1	25.7 1.1	90.4 4.2	67.9 3.0	25.3 1.1	93.2 4.1
	67.8	26.8	94.6	70.9	26.4	97.3
	706.2	26.8	733.0	718.1	26.4	744.5
c) Revenue disaggregated by timing of recognition						
		2019			2018*	
		Intercompany			Intercompany	
	External revenue £m	revenue £m	Revenue £m	External revenue £m	revenue £m	Revenue £m
Over time						
Revenue from contracts with customers Other revenue: EU funding passed to UK en route customers	693.4 9.7	25.7	719.1 9.7	713.3	25.3	738.6
Revenue from other sources	3.1	1.1	4.2	3.0	1.1	4.1
	706.2	26.8	733.0	716.3	26.4	742.7
At a point in time Revenue from contracts with customers	-	-	-	1.8	-	1.8
	706.2	26.8	733.0	718.1	26.4	744.5
0-						
d) Revenue disaggregated by geographical area						
The following table provides an analysis of the company's rever	nue by geographical are	ea based on the location	of its customers	:		
					2019	2018*
Revenue from contracts with customers, including Oth	ner revenue: EU fund	ding passed to UK er	route custome	ers	£m	£m
United Kingdom Other European countries Republic of Ireland United States of America Countries in Asia Germany Other North American countries Countries in Africa Countries in Oceania Countries in South America					300.1 128.4 88.2 86.1 51.2 46.0 22.3 4.8 1.2 0.5	304.9 135.6 88.0 85.7 48.3 48.9 21.6 5.4 1.3 0.7
Revenue from other sources					/20.0	740.4
United Kingdom Other European countries					3.7 0.5	3.7 0.4
					4.2	4.1
					733.0	744.5

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.

Information about major customers

Included in revenues arising from Airspace are revenues of £72.1m (2018: £78.3m) which arose from the company's largest customer.

^{*} The company has chosen not to restate comparatives on adoption of IFRS 15. See note 31.

4. Revenue (continued)

e) Contract balances

Receivables, contract assets and contract liabilities from contracts with customers are disclosed in notes 16 and 21. Significant changes in the contract assets and the contract liabilities balances during the year are as follows.

	Contract assets	Contract liabilities
	2019 £m	2019 £m
At 1 April	0.2	(16.7)
Opening contract assets transferred to trade and other receivables Additional contract asset balances recognised at the balance sheet date Opening contract liabilities which have now been recognised as revenue	(0.2) 0.3	4.9
Increases due to cash received, excluding amounts recognised as revenue during the year	-	(61.7)
At 31 March	0.3	(73.5)

Contract assets and contract liabilities are included within "trade and other receivables" and "trade and other payables" respectively on the face of the statement of financial position. The majority of contracts in the Airspace service line 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 vast majority of contracts, the company has a right to consideration from the customer in an amount that corresponds directly to the value to the customer of the company'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 Other Services lines	7.6 0.1	2.5	1.0 0.1	- -	11.1 0.2
	7.7	2.5	1.1	-	11.3

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.

h) Cash flow hedged revenue

A portion of the company'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 £0.9m gain (2018: £0.8m 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 Other Service lines	313.3 3.5	344.5 4.2
Service line contribution	316.8	348.7
Costs not directly attributed to service lines:		
Depreciation and amortisation (net of deferred grants released) Employee share scheme (costs)/credits Redundancy costs Other costs not directly attributed to service lines R&D expenditure above the line tax credits	(137.7) (2.4) (0.5) (66.3) 1.9	(134.1) 2.2 (0.7) (58.9) 1.8
Operating profit	111.8	159.0

 $Other costs \ not \ directly \ attributed \ to \ service \ lines \ include \ corporate \ costs \ providing \ central \ support \ functions.$

5. Operating segments: Operating profit (continued)

Supplementary information

EC Regulations require air navigation service providers to present income and costs, prepared under international accounting standards, for each of their air navigation services. The following disclosure is provided in this respect:

	2019		2018			
	UK air traffic services £m	North Atlantic air traffic services £m	Total £m	UK air traffic services £m	North Atlantic air traffic services £m	Total £m
Revenue	703.8	29.2	733.0	715.0	29.5	744.5
Operating costs	(595.9)	(25.3)	(621.2)	(563.0)	(22.5)	(585.5)
Operating profit	107.9	3.9	111.8	152.0	7.0	159.0

Under 'single till' principles, UK air traffic services revenue includes intercompany revenue and revenue from other sources.

Non-current asset additions

Additions to non-current assets presented by service line are: Airspace £150.0m (2018: £180.0m) and Other Service lines £0.1m (2018: £0.8m).

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	2018
	£m	£m
United Kingdom	1,248.7	1,234.1
Other European Countries	0.8	0.8
Other North American countries	0.7	0.7
	1,250.2	1,235.6
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	5.3	4.9
Depreciation of property, plant and equipment Impairment of property, plant and equipment	78.8 1.9	79.0 0.9
Amortisation of intangible assets	55.1	50.9
Impairment of intangible assets Deferred grants released	2.2 (0.3)	3.7 (0.4)
Research and development costs	8.8	8.6
Redundancy costs R&D expenditure above the line tax credits	0.5 (1.9)	0.7 (1.8)
Auditors remuneration for audit services (see below)	(1.9)	(1.0)

Fees payable to BDO LLP and their associates for non-audit services to the company are not required to be disclosed because the consolidated financial statements are required to disclose such fees on a consolidated basis. These fees are borne by NATS Limited and recharged to other group companies.

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

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

Transactions with group companies

	£m	£m
Net charges for services provided by parent undertaking	9.6	9.0
Charges for services provided by other group companies	17.6	17.1
Charges for seconded staff under the terms of the MSA provided by NATS Limited (see below)	385.8	371.5

NATS Limited, the immediate parent company, is responsible for employing the staff engaged in the activities carried out by NERL. In addition to the staff costs referred to in note 7a) below, NERL is responsible under the Management Services Agreement (MSA) for reimbursing NATS Limited for all other staff related costs which it incurs on behalf of the employees seconded to NERL (including all taxes and social security, redundancy and pension costs) together with appropriate staff related costs and expenses and disbursements. Under the Inter Company Services Agreement (ICSA) NATS Services provides certain services to NERL. The MSA and ICSA are explained in more detail in note 2.

2010

2019

2018

2018

7. Staff costs

a) Staff costs

	2019 £m	2018 £m
Salaries and staff costs were as follows:		
Wages and salaries	277.1	252.8
Social security costs	33.6	31.0
Pension costs (note 7b)	63.0	78.6
	373.7	362.4
Less: amounts capitalised	(40.8)	(44.8)
	332.9	317.6

Wages and salaries includes redundancy costs of £0.4m (2018: £0.7m), share-based payment 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 28) Defined contribution pension scheme costs	50.5 12.5	69.5 9.1
	63.0	78.6

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

c) Staff numbers

	2019	2018
	No.	No.
The monthly average number of employees (including executive directors) was:		
Air traffic controllers	1,292	1,212
Air traffic service assistants	523	498
Engineers	761	769
Others	842	758
	3,418	3,237
	3,416	3,237
9 Investment income		
8. Investment income		
8. Investment income	2019	2018*
8. Investment income	2019 £m	2018* £m
8. Investment income		
	£m	£m
Interest on bank deposits	£m 1.2	£m 0.6
	£m	£m
Interest on bank deposits	£m 1.2	£m 0.6

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.

9. Fair value movement on derivative contract

	£m	£m
(Charge)/credit arising from change in the fair value of derivatives not qualifying for hedge accounting	(3.0)	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
Interest payable on intercompany loans	-	0.2
	25.4	26.8

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

^{*} The company has chosen not to restate comparatives on adoption of IFRS 15. See note 31.

11. Tax				
11. 1 ax			2019	2018*
			£m	£m
Corporation tax Current tax			6.4	10.7
Adjustments in respect of prior year			(2.8)	(5.3)
			3.6	5.4
Defended for the 200			0.0	0.4
Deferred tax (see note 23) Origination and reversal of temporary timing differences			8.2	11.6
Adjustments in respect of prior year			2.4	5.2
Effects of tax rate change on opening balance			-	(2.4)
			10.6	14.4
			14.2	19.8
Comparation to via color lated at 100 (2010; 100) of the action at all access also work for the vices				
Corporation tax is calculated at 19% (2018: 19%) of the estimated assessable profit for the year.				
	2019		2018*	
The charge for the year can be reconciled to the profit per the income statement as follows:	£m	%	£m	%
Profit on ordinary activities before tax	86.0		134.2	
	-	-	·	
Tax on profit on ordinary activities at standard rate in the UK of 19% (2018: 19%)	16.3	19.0%	25.5	19.0%
Tax effect of change in corporation tax rate from 19% to 17% (2018: 19% to 17%)	(0.1)	(0.1%)	(3.4)	(2.5%)
Patent box Tax effect of prior year adjustments - current tax	(1.6) (2.8)	(1.9%) (3.3%)	(1.5) (5.3)	(1.1%) (4.0%)
Tax effect of prior year adjustments - current tax Tax effect of prior year adjustments - deferred tax	2.4	(3.3%)	5.2	3.9%
Employee share scheme award of partnership and matching shares	0.1	0.1%	-	-
R&D expenditure increased deductions	(0.1)	(0.1%)	0.6	0.5%
Other permanent differences	<u> </u>	<u> </u>	(1.3)	(1.0%)
Tax charge for year at an effective tax rate of 16.5% (2018: 14.8%)	14.2	16.5%	19.8	14.8%
Deferred tax (credit)/charge taken directly to equity (see note 23)	(22.1)		61.0	
+ The company has a heavy webba scatter as wear still year an adaptive of IFDC 15. Compate 21			_	
* The company has chosen not to restate comparatives on adoption of IFRS 15. See note 31.				
12. Dividends				
			2019 £m	2018 £m
			LIII	TIII
Amounts recognised as dividends to equity shareholders in the year:				
First interim dividend of £2.85 per share (2018: £2.75 per share)			28.5	27.5
Second interim dividend of £2.85 per share (2018: £2.85 per share)			28.5	28.5
			57.0	56.0

In May 2019, the Board approved and the company paid an interim dividend for the year ending 31 March 2020 of £2.90 per share (totalling £29.0m).

13. Goodwill

	£m
Cost	
At 31 March 2018 and 31 March 2019	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 company 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 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 company'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 company'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.

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	446.8	84.9	47.0	168.5	747.2
Additions internally generated Additions externally acquired Transfers during the year	6.8 8.1 20.1	0.1 4.5 1.3	1.5 - 1.0	26.3 68.6 (24.7)	34.7 81.2 (2.3)
At 31 March 2018	481.8	90.8	49.5	238.7	860.8
Additions internally generated Additions externally acquired Disposals during the year Transfers during the year	3.0 2.6 - 5.8	1.2 2.1 (0.9) 10.0	1.2 0.2 - 1.4	24.5 16.5 - (14.0)	29.9 21.4 (0.9) 3.2
At 31 March 2019	493.2	103.2	52.3	265.7	914.4
Accumulated amortisation					
At 1 April 2017	153.4	61.4	23.5	0.3	238.6
Charge for the year Impairment provision recognised in income statement Transfer of impairment provision	38.6 - 3.1	8.1 - 0.1	4.2 - -	3.7 (3.2)	50.9 3.7
At 31 March 2018	195.1	69.6	27.7	0.8	293.2
Charge for the year Impairment provision recognised in income statement Transfer of impairment provision Disposals during the year	42.0 - 0.4 -	9.0 - 0.5 (0.9)	4.1 - -	2.2 (0.9)	55.1 2.2 - (0.9)
At 31 March 2019	237.5	78.2	31.8	2.1	349.6
Carrying amount					
At 31 March 2019	255.7	25.0	20.5	263.6	564.8
At 31 March 2018	286.7	21.2	21.8	237.9	567.6
At 1 April 2017	293.4	23.5	23.5	168.2	508.6

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.

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	245.7	41.2	1,361.7	21.8	42.8	1,713.2
Additions during the year	0.4	0.1	6.6	0.4	57.4	64.9
Disposals during the year Other transfers during the year	-	(0.2) 0.1	(1.0) 11.0	0.4	(9.2)	(1.2) 2.3
<i>y</i>	-					
At 31 March 2018	246.1	41.2	1,378.3	22.6	91.0	1,779.2
Additions during the year Disposals during the year	0.4	0.2	8.8 (0.1)	0.1	89.3	98.8 (0.1)
Other transfers during the year	0.4	-	12.8	-	(16.4)	(3.2)
At 31 March 2019	246.9	41.4	1,399.8	22.7	163.9	1,874.7
Accumulated depreciation and impairment						
At 1 April 2017	129.3	32.5	1,058.5	14.9	0.6	1,235.8
Provided during the year	7.8	1.3	68.7	1.2	-	79.0
Impairment provision recognised in income statement	-	-	0.8	-	0.1	0.9
Transfer of impairment provision Disposals during the year	-	(0.2)	0.2 (1.0)	-	(0.2)	(1.2)
At 31 March 2018	137.1	33.6	1,127.2	16.1	0.5	1,314.5
Provided during the year	7.8	1.2	68.5	1.3	-	78.8
Impairment provision recognised in income statement	-	-	0.1	-	1.8	1.9
Transfer of impairment provision Disposals during the year	-	-	0.3 (0.1)	-	(0.3)	(0.1)
· · · · · · · · · · · · · · · · · · ·						<u>`</u>
At 31 March 2019	144.9	34.8	1,196.0	17.4	2.0	1,395.1
Carrying amount						
At 31 March 2019	102.0	6.6	203.8	5.3	161.9	479.6
At 31 March 2018	109.0	7.6	251.1	6.5	90.5	464.7
At 1 April 2017	116.4	8.7	303.2	6.9	42.2	477.4

The company conducts annual reviews of the carrying values of its property, plant, equipment and intangible assets. During the year, impairment charges of £4.1m (2018: £4.6m) 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 company 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.

16. Financial and other assets

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

Trade and other receivables

Non-current £m £m Receivable from customers gross (nil provision for impairment) 14.1 - Prepayments 7.5 5.0 Accrued income - 12.8 Current 21.6 17.8 Receivable from customers gross 98.6 52.3 Less: provision for impairment (3.9) (4.8) Other debtors 94.7 47.5 Contract assets 0.3 - Amounts due from fellow subsidiary undertaking 2.9 - Prepayments 14.4 9.9 Accrued income 116.7 121.5		2019	2018*
Prepayments Accrued income 7.5 5.0 Accrued income 2.1.6 17.8 Current 2.1.6 17.8 Receivable from customers gross 98.6 52.3 Less: provision for impairment (3.9) (4.8) Other debtors 4.4 3.2 Contract assets 0.3 - Amounts due from fellow subsidiary undertaking 2.9 - Prepayments 14.4 9.9 Accrued income - 60.9	Non-current	±(f)	±Π
Current Seceivable from customers gross 98.6 52.3 Less: provision for impairment 3.9 (4.8) Other debtors 4.4 3.2 Contract assets 0.3 - Amounts due from fellow subsidiary undertaking 2.9 - Prepayments 14.4 9.9 Accrued income - 60.9	Prepayments	7.5	5.0
Receivable from customers gross 98.6 52.3 Less: provision for impairment 3.9 (4.8) 94.7 47.5 Other debtors 4.4 3.2 Contract assets 0.3 - Amounts due from fellow subsidiary undertaking 2.9 - Prepayments 14.4 9.9 Accrued income - 60.9		21.6	17.8
Other debtors 4.4 3.2 Contract assets 0.3 - Amounts due from fellow subsidiary undertaking 2.9 - Prepayments 14.4 9.9 Accrued income - 60.9	Receivable from customers gross		
Contract assets 0.3 - Amounts due from fellow subsidiary undertaking 2.9 - Prepayments 14.4 9.9 Accrued income - 60.9		94.7	47.5
110.7 121.3	Contract assets Amounts due from fellow subsidiary undertaking Prepayments	0.3 2.9 14.4	- 9.9 60.9
		116./	121.5

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.

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

^{*}The company has chosen not to restate comparatives on adoption of IFRS 15. See note 31.

2019

2018*

16. Financial and other assets (continued)

The average credit period on sales of services is 25 days (2018: 29 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 includes regulatory revenue adjustments for the previous control period, which will be recovered after 31 March 2020. Receivables from customers which are current includes 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.

Movement in the impairment provision

	£m	£m
Balance at the beginning of the year (as previously stated) Adjustment on initial application of IFRS 9 (see note 31) Reclassification of provisions for accrued income	4.8 (0.3) 0.2	4.0
Balance at the beginning of the year (as restated for IFRS 9) Increase in allowance recognised in the income statement Foreign exchange movement in the year Amounts recovered during the year	4.7 (0.1) 0.2	4.0 0.8 0.1 0.1
Amounts written off as irrecoverable	(0.9)	(0.2)
Balance at the end of the year	3.9	4.8

The company 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 company 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 - m	nonths past due				
	Current	1 month	2-3 months	4-6 months	7-12 months	>12 months	In administration	Total £m
Expected credit loss rate (%)	0.2%	6.1%	20.0%	48.6%	63.1%	81.4%	100.0%	2111
Gross carrying amount (£m)	108.5	0.4	0.2	0.2	0.1	0.5	3.1	113.0
Lifetime expected credit loss (£m)	0.2	-	-	0.1	0.1	0.4	3.1	3.9

Non-current trade and other 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.

As at 31 March 2019, trade receivables of £3.1m (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 company 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 (excluding prepayments and recoverable VAT) would be £280.4m (2018: £315.8m).

^{*}The company has chosen not to restate comparatives on adoption of IFRS 15. See note 31.

Amounts due for settlement after 12 months

292.2

334.8

17. Borrowings		
Unsecured loans	2019 £m	2018 £m
Intercompany loan from fellow subsidiary Obligations under finance leases (see note 19)	1.4	22.5 1.6
Secured loans at amortised cost £600m 5.25% Guaranteed Secured Amortising Bond due 2026	336.2	381.3
Gross borrowings	337.6	405.4
Unamortised bond issue costs Unamortised bank facility arrangement fees	(1.4) (1.3)	(1.8) (1.7)
	334.9	401.9
Amounts due for settlement within 12 months	42.7	67.1

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. 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.

Undrawn committed facilities	2019 £m	2018 fm
Undrawn committed facilities expire as follows:	LIII	LIII
Expiring in more than two years	400.0	400.0
At 31 March 2019, NERL had no outstanding drawings on its committed bank facilities. These facilities expire in July 2022.		
In May 2018, NERL repaid the intercompany loan of £22.5m.		
18. Derivative financial instruments		
Fair value of derivative financial instruments	2019	2018
Non august accets	£m	£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)	2.5	1.9
Current liabilities		
Derivative financial instruments in designated hedge accounting relationships Forward foreign exchange contracts (cash flow hedges) Derivative financial instruments classified as held for trading	(1.4)	(0.4)
Index-linked swap	(12.2)	(10.2)
	(13.6)	(10.6)
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)

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 company'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.

19. Obligations under finance leases

	Minimum lease payments		Present value of minimum lease payments	
	2019 £m	2018 £m	2019 £m	2018 £m
Within one year In the second to fifth years inclusive After five years	0.2 0.9 0.5	0.2 0.9 0.7	0.2 0.8 0.4	0.2 0.8 0.6
-	1.6	1.8	1.4	1.6
Less: future finance charges	(0.2)	(0.2)		-
Present value of minimum lease payments	1.4	1.6	1.4	1.6
			2019 £m	2018 £m
Current Non-current			0.2 1.2	0.2 1.4
			1.4	1.6

The company 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 company's lease obligation is approximately equal to its carrying amount.

20. Financial instruments

Capital risk management

The company manages its capital to ensure that it is able to continue as a going concern, to meet its obligations under its air traffic services licence and to fund returns to shareholders. The capital structure of the company consists of debt, as disclosed in note 17, cash and cash equivalents and short term investments, as shown in this note, and equity attributable to shareholders as disclosed in the statement of changes in equity.

External capital requirements

The 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 company to target a credit profile that exceeds BBB-/Baa3.

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

Gearing ratio

Consistent with seeking to maintain an investment grade credit rating, the company sets a gearing target measured as the ratio of net debt to the 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 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.

Categories of financial instrument

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

The carrying values of financial institution is by category at \$1 March was as follows.	2019	2018
Financial assets	£m	£m
Financial assets at amortised cost		
Trade and other receivables, excluding prepayments and VAT Cash and cash equivalents and short term investments	114.3 166.1	121.2 194.6
	280.4	315.8
Derivative financial instruments In designated hedge accounting relationships	4.2	3.1
	284.6	318.9
Financial liabilities		
Liabilities at amortised cost	(222.2)	(0.40.0)
Trade and other payables Borrowings	(293.0) (337.6)	(249.9) (405.4)
	(630.6)	(655.3)
Derivative financial instruments		
In designated hedge accounting relationships Held for trading at fair value through profit or loss	(1.8) (122.1)	(0.9) (129.2)
	(123.9)	(130.1)
	(754.5)	(785.4)

Trade and other receivables excludes prepayments, and VAT of £2.1m (2018: £3.2m). Liabilities at amortised cost include balances for trade and other payables (excluding contract liabilities, and deferred income of £19.6m (2018: £90.7m)), the bond and bank borrowings (excluding unamortised bond issue costs and bank facility arrangement fees).

The index-linked swap is categorised as held for trading. During the year, £10.1m (2018: £8.1m) was repaid in 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 treasury function is mandated by the Board of NATS Holdings Limited 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 company. 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 company's activities include market risk (including currency risk, cash flow interest rate risk and inflation risk), credit risk and liquidity risk.

Market risk

The company'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 company 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
- index-linked swaps to mitigate the risk of low inflation

Foreign currency risk management

The company's principal exposure to foreign currency transaction risk is in relation to UK en route services revenues, accounting for 81% of turnover (2018: 81%). 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 the company, forward foreign currency contracts are entered into. The company 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 company 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 company's foreign currency denominated monetary assets and monetary liabilities at 31 March was as follows:

	As	ssets	Lial	oilities
	2019 £m	2018 £m	2019 £m	2018 £m
Euro US dollar Canadian dollar Danish krone	97.7 2.2 0.9	101.6 0.3 - 0.1	(13.7) (1.0) (1.2)	(12.9) (1.4) (0.5)
	100.8	102.0	(15.9)	(14.8)

Foreign currency sensitivity analysis

The company has assets and liabilities denominated in foreign currencies including cash balances of £3.7m at 31 March 2019 (2018: £2.2m) in euro, Canadian dollars and US dollars. Furthermore, the company 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 company'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 US dollar Canadian dollar Danish Krone	1.5 (1.9) (0.1)	0.9 (1.9) (0.1) (0.1)
	(0.5)	(1.2)

The company's sensitivity to the euro increased during the year reflecting a net decrease in euro denominated monetary assets, partially offset by a net decrease in euro denominated forward contracts taken out to hedge future receipts and purchases. Exposure to other currencies has remained fairly constant. NERL believes that this sensitivity analysis accurately reflects its inherent foreign exchange risk.

Forward foreign exchange contracts

The company entered into forward foreign exchange contracts to sell euro forecast to be received from Eurocontrol in respect of UK en route revenues. In addition, NERL entered into other forward foreign exchange contracts to fund purchases of equipment. The company has designated these forward contracts as cash flow hedges. The following contracts were outstanding at year end:

		2019	Average			2018	Average
Euro sold	£m	€m	exchange rate	Euro sold	£m	€m	exchange rate
0-90 days 91-365 days	143.5	164.2	0.8744	0-90 days 91-365 days	148.8	168.2 10.0	0.8847 0.9007
> 365 days	18.0	19.6	0.9160	Over 3 months	24.3	26.6	0.9136
_	161.5	183.8	0.8788		182.1	204.8	0.8892
Euro bought	€m	£m		Euro bought	€m	£m	
0-90 days	8.9	7.7	0.8736	0-90 days	12.0	10.7	0.8937
91-365 days	29.2	26.4	0.9044	91-365 days	21.2	18.6	0.8732
> 365 days	31.8	28.4	0.8917	> 365 days	61.7	55.3	0.8956
_	69.9	62.5	0.8947		94.9	84.6	0.8904
US dollar bought	US\$ m	£m		US dollar bought	US\$ m	£m	
0-90 days	8.8	6.5	1.3461	0-90 days	8.8	6.3	1.4069
91-365 days	3.9	2.8	1.4105	91-365 days	4.1	2.8	1.4554
> 365 days	12.5	8.5	1.4735	> 365 days	16.7	11.3	1.4730
	25.2	17.8	1.4169		29.6	20.4	1.4503
Canadian dollar bought	CAD m	£m		Canadian dollar bought	CAD m	£m	
0-90 days	0.5	0.3	1.7064	0-90 days	1.3	0.8	1.6836
91-365 days	0.4	0.2	1.7306	91-365 days	-	-	-
> 365 days	0.8	0.5	1.7311	> 365 days	0.9	0.5	1.7197
	1.7	1.0	1.7232		2.2	1.3	1.6981
Danish krone bought	DKK m	£m		Danish krone bought	£m	DKK m	
0-90 days	1.4	0.2	8.4320	0-90 days	1.4	0.2	8.5309
> 365 days	2.9	0.4	8.2972	> 365 days	4.4	0.5	8.3410
_	4.3	0.6	8.3410		5.8	0.7	8.3866

At 31 March 2019, the aggregate amount of the unrealised gains under forward foreign exchange contracts deferred in the hedge reserve relating to the exposure on these future transactions was £0.6m (2018: £1.3m unrealised gain). 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

NERL 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 are kept under continuous review.

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

Economic interest rate exposure

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

				2019			
		Cash		SI	nort term deposits		
Currency		Economic			Economic		
	Amount	interest rate	Average maturity	Amount	interest rate	Average maturity	Total
	£m	%	days	£m	%	days	£m
Sterling	126.0	0.8	3	36.4	0.9	183	162.4
Euro	2.4	-	1	-	-	-	2.4
Canadian dollar	1.0	-	1	-	-	-	1.0
US dollar	0.3	-	1	-	-		0.3
	129.7			36.4		_	166.1
				2018		_	
		Cash			nort term deposits		
Currency		Economic		اد	Economic		
Currency	Amount	interest rate	Average maturity	Amount	interest rate	Average maturity	Total
	£m	"interest rate	days	£m	""" %	days	£m
	ш	70	uays	LIII	70	uays	LIII
Sterling	154.1	0.4	5	38.3	0.8	181	192.4
Euro	2.0	-	3	-	-	-	2.0
Canadian dollar	0.1	-	3	-	-	-	0.1
US dollar	0.1	-	3	-	-		0.1
	156.3			38.3		_	194.6

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

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

		tives

Excluding derivatives						Weighted
	Total £m	Variable rate £m	Inflation rate £m	Fixed rate £m	Economic interest rate %	average time for which rate is fixed years
At 31 March 2019 Sterling:						
5.25% guaranteed secured bonds Obligations under finance leases	336.2 1.4	-	-	336.2 1.4	5.26% 3.10%	4.2 3.4
Total	337.6	-	-	337.6		
At 31 March 2018 Sterling: 5.25% guaranteed secured bonds Obligations under finance leases	381.3 1.6	-	-	381.3 1.6	5.26% 3.10%	4.6 3.9
Intercompany loans	22.5	22.5	<u> </u>	-	1.20%	0.5
Total	405.4	22.5	-	382.9		
Including derivatives						Watakaad
					Economic	Weighted average time
At 31 March 2019	Total £m	Variable rate £m	Inflation rate £m	Fixed rate £m	interest rate %	for which rate is fixed years
At 31 March 2019 Sterling:	£m	rate	rate £m	rate £m	rate %	for which rate is fixed years
		rate	rate	rate	rate	for which rate is fixed
Sterling: 5.25% guaranteed secured bonds 5.25% guaranteed secured bonds	£m 178.2 158.0	rate	rate £m - 158.0	rate £m 178.2	rate % 5.27% 5.41%	for which rate is fixed years 4.2 0.5
Sterling: 5.25% guaranteed secured bonds 5.25% guaranteed secured bonds Obligations under finance leases Total At 31 March 2018	£m 178.2 158.0 1.4	rate	rate £m - 158.0	rate £m 178.2 - 1.4	rate % 5.27% 5.41%	for which rate is fixed years 4.2 0.5
Sterling: 5.25% guaranteed secured bonds 5.25% guaranteed secured bonds Obligations under finance leases Total	£m 178.2 158.0 1.4	rate	rate £m - 158.0	rate £m 178.2 - 1.4	rate % 5.27% 5.41%	for which rate is fixed years 4.2 0.5
Sterling: 5.25% guaranteed secured bonds 5.25% guaranteed secured bonds Obligations under finance leases Total At 31 March 2018 Sterling: 5.25% guaranteed secured bonds 5.25% guaranteed secured bonds Obligations under finance leases	£m 178.2 158.0 1.4 337.6 205.3 176.0 1.6	rate £m	rate £m - 158.0 - - 158.0	178.2 - 1.4 179.6 205.3 - 1.6	5.27% 5.41% 3.10% 5.27% 5.25% 3.10%	for which rate is fixed years 4.2 0.5 3.4 4.6 0.5 3.9

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

20. Financial instruments (continued)

The following table shows the percentage of fixed, index-linked and floating rate debt as a percentage of 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		2018	
	£m	%	£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 company'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: £166.1m, 2018: £194.6m) Borrowings (2019: £nil, 2018: £22.5m)	1.7	1.9 (0.2)
	1.7	1.7

Overall the company's sensitivity to interest rates is the same as in the prior year

Inflation rate risk

The regulatory charge control conditions that apply to the company'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 £600m 5.25% fixed rate bond, the company entered into an amortising index-linked swap with a notional principal of £200m 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 £158m. 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 the company 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	2018
lm _i	pact	Impact
	£m	£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%.

Credit risk management

Credit risk refers to the risk that a counterparty will default on its contractual obligations resulting in financial loss to the company. The company'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 16. With regard to funds or contracts held with financial institutions, the company'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 NATS group 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 of the ratings is applied.

Currently, the company's investments take the form of bank time deposits and money market fund investments. Investments in bank time deposits with maturities up to three months and between three and six 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 tables below set out the investment limits that are applied to each institution based on its credit rating.

Rating	Limit per Institution
(Standard & Poor's)	£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 company's deposits at 31 March by credit rating (Standard & Poor's):

	2019			2018	
Number of		By credit rating	Number of		By credit rating
institutions	£m	%	institutions	£m	%
7	116.3	70.0	5	133.2	68.4
1	20.0	12.1	1	20.0	10.3
4	29.8	17.9	5	41.4	21.3
	166.1	100.0		194.6	100.0
	institutions 7 1	Number of institutions £m 7 116.3 1 20.0 4 29.8	Number of institutions By credit rating % 7 116.3 70.0 1 20.0 12.1 4 29.8 17.9	Number of institutions By credit rating % institutions Number of institutions 7 116.3 70.0 5 1 20.0 12.1 1 4 29.8 17.9 5	Number of institutions By credit rating functions Number of institutions £m 7 116.3 70.0 5 133.2 1 20.0 12.1 1 20.0 4 29.8 17.9 5 41.4

Liquidity risk management

The responsibility for liquidity risk management, the risk that the company will have insufficient funds to meet its obligations as they fall due, rests with the Board of NATS Holdings Limited with oversight provided by the Treasury Committee. The company 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.

The 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 to average monthly UK en route services income receipts during the year:

	2019 £m	2018 £m
Average monthly UK en route services income Free cash at 31 March	49.8 108.4	50.5 135.0
Ratio of free cash to UK en route services income	2.2	2.7
The following table shows the ratio of the company's bank borrowings to its gross borrowings at 31 March:	2019 £m	2018 £m
Bank borrowings Gross borrowings	337.6	405.4
Bank borrowings as a percentage of gross borrowings	0.0%	0.0%

Maturity of borrowings

The following table sets out the remaining contractual maturity of the company'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 company can be required to repay. The table includes both interest and principal cash flows.

		20	2019			2018			
	Unsecured loans £m	Secured loans £m	Other liabilities £m	Total £m	Unsecured Ioans £m	Secured loans £m	Other liabilities £m	Total £m	
Due within one year or less	0.2	60.8	182.8	243.8	22.8	65.3	164.4	252.5	
Between one and two years	0.2	56.8	65.6	122.6	0.2	60.8	55.7	116.7	
Due between two and five years	0.7	156.1	40.2	197.0	0.7	164.8	24.9	190.4	
Due in more than five years	0.5	138.0	4.4	142.9	0.7	187.0	4.9	192.6	
Effect of interest, discount and	1.6	411.7	293.0	706.3	24.4	477.9	249.9	752.2	
unamortised bond issue and bank facility arrangement fees	(0.2)	(78.2)	-	(78.4)	(0.3)	(100.1)	-	(100.4)	
_	1.4	333.5	293.0	627.9	24.1	377.8	249.9	651.8	

Other liabilities above include trade and other payables excluding deferred income of £19.6m (2018: £90.7m) and contract liabilities of £73.5m (2018: £nil).

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

Maturity of borrowings (continued)

The following table sets out the maturity profile of the 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 company's long term forecasts of inflation as used for business planning purposes. The table shows undiscounted net cash inflows/(outflows) on these derivatives.

2019	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
Net settled: Index-linked swap payable Gross settled:	(12.2)	(14.9)	(54.0)	(45.3)	(126.4)
Gross Settlieu. Foreign exchange forward contract receivables Foreign exchange forward contract payables	239.8 (238.5)	48.7 (47.0)	7.0 (7.5)	-	295.5 (293.0)
	(10.9)	(13.2)	(54.5)	(45.3)	(123.9)
2018 Net settled:					
Index-linked swap payable Gross settled:	(10.2)	(12.6)	(49.7)	(67.5)	(140.0)
Foreign exchange forward contract receivables Foreign exchange forward contract payables	253.5 (252.0)	40.0 (40.4)	51.4 (50.7)		344.9 (343.1)
	(8.7)	(13.0)	(49.0)	(67.5)	(138.2)

Forward 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

The information set out below provides information about how the company 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).

	2019			2018				
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Financial assets Derivative financial instruments in designated hedge accounting relationships		4.2	-	4.2		3.1	-	3.1
Financial liabilities								
Derivative financial instruments in designated hedge accounting relationships	-	(1.8)	-	(1.8)	-	(0.9)	-	(0.9)
Derivative financial instruments classified as held for trading	-	(122.1)	-	(122.1)	-	(129.2)	-	(129.2)
		(123.9)	-	(123.9)	-	(130.1)	-	(130.1)

There were no transfers between individual levels in the year.

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; 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 a	Carrying amount		ilue
	2019 2018		2019	2018
	£m	£m	£m	£m
Financial liabilities				
£600m 5.25% Guaranteed Secured Amortising Bond	(336.2)	(381.3)	(388.9)	(440.6)

2019

2018*

21. Financial and other liabilities

Trade and other payables

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

	2019 £m	2018^ £m
Current		
Trade payables	82.0	15.5
Other payables	0.1	42.8
Amounts due to parent company	49.3	44.5
Amounts due to fellow undertaking	-	9.9
Contract liabilities	37.9	-
Accruals and deferred income		
- Deferred grants	0.2	0.3
- Other	53.7	72.3
	223.2	185.3
Non-current		
Trade payables	102.9	-
Other payables	-	60.5
Contract liabilities	35.6	-
Accruals and deferred income	4.5	1.0
- Deferred grants - Other	1.5	1.8
- Other	22.9	93.0
	162.9	155.3
	386.1	340.6

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 33 days (2018: 38 days). The directors consider that the carrying amount of the trade payables approximates to their fair value.

Trade payables that are non-current 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.

22. Provisions

		£m
At 1 April 2018 Additional provision in the year Release of provision in the year Utilisation of provision		5.9 1.1 (0.1) (0.1)
At 31 March 2019		6.8
	2019 £m	2018 £m
Amounts due for settlement within 12 months Amounts due for settlement after 12 months	0.8 6.0	0.2 5.7
	6.8	5.9

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

^{*} The company has chosen not to restate comparatives on adoption of IFRS 15. See note 31.

23. Deferred tax

The following are the major deferred tax assets and liabilities recognised by the company, and movements thereon during the current and prior reporting periods.

	Accelerated tax depreciation £m	Retirement benefits £m	Financial instruments £m	Other £m	Total £m
At 1 April 2017	95.5	(48.7)	(7.8)	(3.0)	36.0
Charge to income Charge/(credit) to equity	10.8	1.6 61.3	1.9 (0.3)	0.1	14.4 61.0
At 31 March 2018	106.3	14.2	(6.2)	(2.9)	111.4
At 1 April 2018	106.3	14.2	(6.2)	(2.9)	111.4
Charge/(credit) to income Credit to equity	6.2	4.9 (21.9)	0.6 (0.2)	(1.1)	10.6 (22.1)
At 31 March 2019	112.5	(2.8)	(5.8)	(4.0)	99.9

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 Deferred tax assets	(112.5) 12.6	(120.5) 9.1
	(99.9)	(111.4)

24. 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 2018 and 31 March 2019	10,000,000	10.0	10,000,000	10.0

25. Notes to the cash flow statement

	2019 £m	2018 £m
Operating profit from continuing operations	111.8	159.0
Adjustments for: Depreciation of property, plant and equipment Amortisation of intangible assets Impairment losses Deferred grants released R&D expenditure above the line tax credits Adjustment for pension funding	78.8 55.1 4.1 (0.3) (1.9) (25.6)	79.0 50.9 4.6 (0.4) (1.8) (8.5)
Operating cash flows before movements in working capital	222.0	282.8
Decrease/(increase) in trade and other receivables Increase in trade, other payables and provisions	2.6 51.7	(2.2) 81.1
Cash generated from operations	276.3	361.7
Tax received/(paid)	1.3	(5.4)
Net cash from operating activities	277.6	356.3

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 Short term investments	129.7 36.4	156.3 38.3
Cash and liquid investments Gross debt - fixed interest rates Gross debt - variable interest rates	166.1 (336.2) 1.3	194.6 (381.1) (20.8)
Net debt Index-linked swaps	(168.8) (122.1)	(207.3) (129.2)
Net financial liabilities	(290.9)	(336.5)

25. Notes to the cash flow statement (continued)

Reconciliation of net financial liabilities (continued)

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

The table below reconciles the fi	Ass		Liabilities from financing activities (excluding derivatives)				Net debt	Derivatives	Net financial liabilities
	Cash and cash equivalents £m	Short term investments £m	Intercompany Ioan £m	Finance leases £m	£600m 5.25% Guaranteed Secured Amortising Bonds £m	Bank loans (i) £m	Sub-total £m	Index-linked swaps £m	Total net financial liabilities £m
Net financial liabilities as at 1 April 2017	108.4	39.4	(22.5)	(1.8)	(426.2)	1.7	(301.0)	(138.6)	(439.6)
Cash flows Bank facility arrangement fees Fair value movements Other non-cash movements (ii)	47.9 - - -	(1.1) - - -	0.2 - - (0.2)	0.3 - - (0.1)	47.2 - - (0.5)	0.4	94.5 0.4 - (1.2)	8.1 - 1.3	102.6 0.4 1.3 (1.2)
Net financial liabilities as at 31 March 2018	156.3	38.3	(22.5)	(1.6)	(379.5)	1.7	(207.3)	(129.2)	(336.5)
Cash flows Fair value movements Other non-cash movements (ii)	(26.6)	(1.9) - -	22.5 - -	0.2	45.2 - (0.5)	(0.4)	39.4 - (0.9)	10.1 (3.0)	49.5 (3.0) (0.9)
Net financial liabilities as at 31 March 2019	129.7	36.4	-	(1.4)	(334.8)	1.3	(168.8)	(122.1)	(290.9)

⁽i) The company 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 intercompany and finance lease interest charges, amortisation of bond issue costs and bank facility arrangement fees.

26. Financial commitments

	2019 £m	2018 £m
Amounts contracted but not provided for in the accounts	66.7	103.3
Minimum lease payments under operating leases recognised in the income statement	5.3	5.8
At the balance sheet date the company had outstanding commitments for future minimum lease payments under non-cancellable op follows:	erating leases, which fall d	lue as
	2019 £m	2018 £m
Within one year In the second to fifth years inclusive After five years	6.2 32.8 32.4	3.6 21.5 42.5
	71.4	67.6

Operating lease payments represent rentals payable by the company for certain of its 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 the company's performance under its Future Military Area Radar Services contract with

27. Share based payments

The company's parent operates an All-Employee Share Ownership Plan for the benefit of employees to hold 5% of the share capital of NATS Holdings Limited. 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:

	No. employee	No. employee
	shares	shares
	outstanding at 31	outstanding at 31
	March 2019	March 2018
Date of share awards		
Free share awards		
21 September 2001	210,561	231,935
20 October 2003	198,680	217,680
10 September 2004	293.720	318,920
11 January 2008	233,548	255,870
18 September 2009	255,757	282,657
To deptember 2009	200,707	202,007
Partnership shares		
1 March 2011	235,956	264,460
26 September 2012	296,649	339,174
30 May 2014	307,460	319,681
31 October 2016	377,618	392,586
31 October 2018	494,886	-
Matching shares		
1 March 2011	235,419	264,351
26 September 2012	295,498	338,437
30 May 2014	307,535	319,681
31 October 2016	377,618	392,586
31 October 2018	494,886	-
	4,615,791	3,938,018
	,,	-,,-
Dividend shares issued on 28 June 2005	25,203	27,489
Total employee shares in issue at 31 March	4,640,994	3,965,507
The movement in the number of employee shares outstanding is as follows:		
The movement in the number of employee shales outstanding is as follows.		
	Movement in the	Movement in the
	no. of shares	no. of shares
	during the year	during the year
	ended	ended
	31 March 2019	31 March 2018
Polones et 1 April	2065 507	4.400.760
Balance at 1 April	3,965,507	4,482,763
Constant during the upper	1 000 40 4	
Granted during the year	1,008,434	(5.475)
Forfeited during the year	(8,918)	(5,172)
Exercised during the year	(337,078)	(517,888)
Staff transfers between group companies	13,049	5,804
Balance at 31 March	4,640,994	3,965,507
Datable at 31 Match	4,040,994	3,903,307

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 £15.3m (2018: £12.9m) included in amounts due to parent company. The income statement includes a charge of £2.4m (2018: £2.2m credit). The payments made to employees for the shares they exercised during the year was £1.2m (2018: £1.8m).

28. Retirement benefit schemes

Defined contribution scheme

NATS Limited, the company's immediate parent undertaking, provides a defined contribution scheme to all qualifying employees who are not members of the defined benefit scheme. The scheme was established on 1 April 2009 for staff who joined from that date. The assets of the scheme are held separately from those of the company in funds under the control of a board of Trustees.

The company operates a salary sacrifice arrangement whereby employees sacrifice an element of their salary in favour of contributions to the pension scheme. The company matches employee 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 £8.1m (2018: £6.0m), excluding salary sacrifice contributions of £4.4m (2018: £3.1m), represented 15.2% of pensionable salaries (2018: 15.0%).

The defined contribution scheme had 1,287 members at 31 March 2019 (2018: 961).

28. Retirement benefit schemes (continued)

Defined benefit scheme

NATS Limited, the company's immediate parent undertaking, 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 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 CAA) and six member-nominated trustees, as well as an independent chair.

During 2009 the parent company 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 price 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 parent company consulted on further pension reforms to mitigate rising pension costs. These included a change to the limit on annual 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.

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 the future benefit accrual 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% 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 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. NERL's share of deficit recovery contributions is c. 76%.

NATS Limited, the immediate parent of the company, is the employer of, and seconds to the company, all personnel who undertake the company's business. In that capacity, NATS Limited participates in the Civil Aviation Authority Pension Scheme and bears the employment (including pension) costs of those personnel.

The company pays fees to NATS Limited for the provision of services, including those of the staff. An element of those fees represents the employment costs (including pension contributions) of staff provided by NATS Limited to NERL. In that way, the existence of a pension deficit or surplus may have an indirect impact upon the company through variations in pension contributions and so the level of those fees

During the year the company paid cash contributions to the scheme of £76.1m (2018: £78.0m). This amount included £6.8m (2018: £7.4m) 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 salaries.

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

The estimated contributions expected to be paid to the scheme during the financial year ending 31 March 2020 is £75.0m, including salary sacrifice contributions estimated at £6.6m.

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 to the extent that it can be realised in full by the company.

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:

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	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%

28. Retirement benefit schemes (continued)

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 active 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 company 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 hetter 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.

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 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.

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

Current service cost		2019 £m	2018 £m
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) 87.6 28.4 Actuarial gains and losses arising from changes in financial assumptions (191.3) 161.6 Actuarial gains and losses arising from changes in demographic assumptions - 122.5 122.5 Actuarial gains and losses arising from experience adjustments (21.9) 27.8 The amount included in the balance sheet arising from the company's obligations in respect of its defined benefit scheme is as follows: 2019 2018 Present value of defined benefit obligations (3,571.7) (330.56) 4.8 Fair value of scheme assets 3,555.2 3,389.1 3.85 (Deficit)/surplus in scheme (16.5) 8.35 Movements in the present value of the defined benefit obligations were as follows: 2019 2018 At 1 April (3305.6) (4371.9) Current service cost (30.5) (437.9) Past service cost (38.5) (9.9) Actuarial gains and losses arising from changes in financial assumptions (36.5) (9.9) <t< td=""><td>Past service cost Net interest credit/(expense)</td><td>(0.8) 3.1</td><td>(5.8)</td></t<>	Past service cost Net interest credit/(expense)	(0.8) 3.1	(5.8)
Return on plan assets (excluding amounts included in net interest expense) 87.6 28.4 Actuarial gains and losses arising from changes in financial assumptions (191.3) 161.6 Actuarial gains and losses arising from changes in demographic assumptions - 122.5 Actuarial gains and losses arising from experience adjustments (21.9) 27.8 The amount included in the balance sheet arising from the company's obligations in respect of its defined benefit scheme is as follows: 2019 2018 Present value of defined benefit obligations (3.571.7) (3.305.6) Fair value of scheme assets 3.555.2 3.389.1 (Deficit)/surplus in scheme (16.5) 83.5 Movements in the present value of the defined benefit obligations were as follows: 2019 2018 Movements in the present value of the defined benefit obligations were as follows: 2019 2018 Movements in the present value of the defined benefit obligations were as follows: 2019 2018 Movements in the present value of the defined benefit obligations were as follows: 2019 2018 Firm Em Em Actuarial gains and losses arising from changes in financial assumptions (65.5)	Components of defined benefit costs recognised within operating profit	(50.5)	(69.5)
Actuarial gains and losses arising from changes in financial assumptions (191.3) 161.6 Actuarial gains and losses arising from changes in demographic assumptions (21.95) 22.8 Actuarial gains and losses arising from experience adjustments (21.96) 340.3 The amount included in the balance sheet arising from the company's obligations in respect of its defined benefit scheme is as follows: 2019 2018 Embedding the properties of the defined benefit obligations (3,571.7) (3,305.6) 4,371.7) (3,305.6) 3,389.1 1,000.2 3,255.2 3,289.1 3,255.2 <td>Remeasurements recorded in the statement of comprehensive income are as follows:</td> <td></td> <td></td>	Remeasurements recorded in the statement of comprehensive income are as follows:		
Present value of defined benefit obligations 3,571.77 (3,305.6) Fair value of scheme assets 3,555.2 3,389.1 (Deficit)/surplus in scheme (16.5) 83.5 Movements in the present value of the defined benefit obligations were as follows: 2019 2018 £m £m £m £m £m £m Lat 1 April (3,305.6) (4,371.9) Current service cost (51.4) (61.3) Past service cost (0.8) - Interest expense on defined benefit scheme obligations (86.5) (99.9) Actuarial gains and losses arising from changes in financial assumptions (191.3) 161.6 Actuarial gains and losses arising from changes in demographic assumptions - 122.5 Actuarial gains and losses arising from experience adjustments (21.9) 27.8 Benefits paid 85.8 915.6	Actuarial gains and losses arising from changes in financial assumptions Actuarial gains and losses arising from changes in demographic assumptions	(191.3) - (21.9)	161.6 122.5 27.8
Present value of defined benefit obligations (3,571.7) (3,305.6) Fair value of scheme assets 3,555.2 3,389.1 (Deficit)/surplus in scheme (16.5) 83.5 Movements in the present value of the defined benefit obligations were as follows: 2019 2018 £m £m £m At 1 April (3,305.6) (4,371.9) Current service cost (51.4) (61.3) Past service cost (0.8) - Interest expense on defined benefit scheme obligations (86.5) (99.9) Actuarial gains and losses arising from changes in financial assumptions (86.5) (99.9) Actuarial gains and losses arising from changes in demographic assumptions - 122.5 Actuarial gains and losses arising from experience adjustments (21.9) 27.8 Benefits paid 85.8 915.6	The amount included in the balance sheet arising from the company's obligations in respect of its defined benefit scheme is as follows:		
Fair value of scheme assets 3,555.2 3,389.1 (Deficit)/surplus in scheme (16.5) 83.5 Movements in the present value of the defined benefit obligations were as follows: 2019 2018 £m £m £m At 1 April (3,305.6) (4,371.9) Current service cost (51.4) (61.3) Past service cost (0.8) - Interest expense on defined benefit scheme obligations (86.5) (99.9) Actuarial gains and losses arising from changes in financial assumptions (191.3) 161.6 Actuarial gains and losses arising from changes in demographic assumptions - 122.5 Actuarial gains and losses arising from experience adjustments (21.9) 27.8 Benefits paid 85.8 915.6			
At 1 April (3,305.6) (4,371.9) Current service cost (51.4) (61.3) Past service cost (0.8) - Interest expense on defined benefit scheme obligations (86.5) (99.9) Actuarial gains and losses arising from changes in financial assumptions (191.3) 161.6 Actuarial gains and losses arising from changes in demographic assumptions - 122.5 Actuarial gains and losses arising from experience adjustments (21.9) 27.8 Benefits paid 85.8 915.6			
At 1 April (3,305.6) (4,371.9) Current service cost (51.4) (61.3) Past service cost (0.8) - Interest expense on defined benefit scheme obligations (86.5) (99.9) Actuarial gains and losses arising from changes in financial assumptions (191.3) 161.6 Actuarial gains and losses arising from changes in demographic assumptions - 122.5 Actuarial gains and losses arising from experience adjustments (21.9) 27.8 Benefits paid 85.8 915.6	(Deficit)/surplus in scheme	(16.5)	83.5
Current service cost (51.4) (61.3) Past service cost (0.8) - Interest expense on defined benefit scheme obligations (86.5) (99.9) Actuarial gains and losses arising from changes in financial assumptions (191.3) 161.6 Actuarial gains and losses arising from changes in demographic assumptions - 122.5 Actuarial gains and losses arising from experience adjustments (21.9) 27.8 Benefits paid 85.8 915.6	Movements in the present value of the defined benefit obligations were as follows:		
Past service cost (0.8) - Interest expense on defined benefit scheme obligations (86.5) (99.9) Actuarial gains and losses arising from changes in financial assumptions (191.3) 161.6 Actuarial gains and losses arising from changes in demographic assumptions - 122.5 Actuarial gains and losses arising from experience adjustments (21.9) 27.8 Benefits paid 85.8 915.6	At 1 April	(3,305.6)	(4,371.9)
At 31 March (3,571.7) (3,305.6)	Past service cost Interest expense on defined benefit scheme obligations Actuarial gains and losses arising from changes in financial assumptions Actuarial gains and losses arising from changes in demographic assumptions Actuarial gains and losses arising from experience adjustments Benefits paid	(0.8) (86.5) (191.3) - (21.9) 85.8	(99.9) 161.6 122.5 27.8
	At 31 March	(3,571.7)	(3,305.6)

28. Retirement benefit schemes (continued)

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 Deferred members Pensioners	(1,460.5) (316.8) (1,794.4)	(1,327.7) (295.9) (1,682.0)
	(3,571.7)	(3,305.6)
Movements in the fair value of scheme assets during the year were as follows:	2019 £m	2018 £m
At 1 April	3,389.1	4,106.6
Interest income on scheme assets Return on plan assets (excluding amounts included in net interest expense) Contributions from company Benefits paid Administrative expenses	89.6 87.6 76.1 (85.8) (1.4)	94.1 28.4 78.0 (915.6) (2.4)
At 31 March	3,555.2	3,389.1
The company's share of the major categories of scheme assets were as follows:	2019 £m	2018 £m
Cash and cash equivalents	23.5	116.7
Equity instruments - UK - Europe - North America - Japan - Pacific (excluding Japan) - Emerging markets - Global	- - - - 108.4 606.7 - 715.1	99.8 27.2 80.2 11.2 30.9 98.7 672.2
Bonds - Fixed income - Index-linked gilts over 5 years	1,217.7 1,156.1 2,373.8	825.5 1,053.8 1,879.3
Other investments - Property - Hedge funds - Private equity funds	184.2 168.1 93.8	185.4 168.9 94.9
Derivatives	446.1	449.2
- Futures contracts	(3.3)	(76.3)
	3,555.2	3,389.1

The scheme assets do not include any investments in the equity or debt instruments of the company 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 assets consist of equities and bonds, although the scheme also invests in property, cash and investment (private equity and hedge) funds.

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 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 £177.2m (2018: £122.5m).

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2010

29. 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).

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 the AG have not exercised undue influence on the group or the company 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.

Aquila Air Traffic Management Services Limited is a joint venture entity of NERL's fellow subsidiary, NATS (Services) Limited.

Trading transactions

	Sale	Purchases		
	Year ended	Year ended	Year ended	Year ended
	31 March 2019	31 March 2018	31 March 2019	31 March 2018
	£m	£m	£m	£m
Ministry of Defence (MOD)	47.6	46.8	4.0	4.7
Department for Transport (DfT)	0.9	0.8	-	-
Meteorological Office	0.3	-	0.8	0.7
Aquila Air Traffic Management Services Limited	1.0	1.2	-	-
	Amounts owed by	related parties	Amounts owed to	related parties
	Amounts owed by Year ended	related parties Year ended	Amounts owed to Year ended	related parties Year ended
				'
	Year ended ²	Year ended	Year ended	Year ended
Ministry of Defence (MOD)	Year ended 31 March 2019 £m 5.7	Year ended 31 March 2018	Year ended 31 March 2019	Year ended 31 March 2018
Ministry of Defence (MOD) Department for Transport (DfT)	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 5.7	Year ended 31 March 2018 £m 5.5	Year ended 31 March 2019 £m 28.4	Year ended 31 March 2018 £m

The company also entered into transactions with its parent and fellow subsidiary undertakings. Sales and purchases to these related parties are disclosed in note 4 and 6 respectively. Amounts owed from/to these related parties are shown in note 16 and 21

Sales are made to related parties at the company'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.

Directors' remuneration

The total remuneration payable to the directors of the company in the year was £1,670,000 (2018: £1,840,000). The number of directors paid by the company during the year was two (2018: two). Both directors had left their respective pension salary sacrifice arrangements prior to 31 March 2017.

Remuneration payable to the highest paid director of the company in the year was £1,013,000 (2018: £1,110,000). Contributions paid to a defined contribution pension scheme via salary sacrifice have been deducted from this remuneration figure. Voluntary contributions to the defined contribution pension scheme, salary sacrificed by the director were £10,000.

Remuneration of key management personnel

The remuneration of key management personnel of the company 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 their executive management teams.

	£m	£m
Short term employee benefits Post-employment benefits	5.6 0.1	6.0
Other long term benefits Termination benefits	2.8	0.6
	8.5	6.6

30. Parent undertaking

The company's immediate parent undertaking is NATS Limited and the ultimate parent undertaking is NATS Holdings Limited. Both are private companies incorporated in Great Britain and registered in England and Wales.

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.

The largest and smallest group in which the results of the company are consolidated is that of which NATS Holdings Limited is the parent company. The consolidated accounts of NATS Holdings Limited can be obtained from the company's secretary, at its registered office, 4000 Parkway, Whiteley, Fareham, Hampshire, PO15 7FL.

31. Changes in accounting policies

As indicated in note 2 above, the company 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 company 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 company's approach to hedge accounting. The impact on the company 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 company 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 company 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 company has revised its impairment methodology under IFRS 9. The impact of the change in impairment methodology on the company's retained earnings and equity is disclosed below.

As at 1 April 2018, the directors of the company reviewed and assessed the company'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 £0.3m (£0.2m 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 company 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 company 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.

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 - m	onths past due				
	Current	1 month	2-3 months	4-6 months	7-12 months	>12 months	In administration	Total £m
Expected credit loss rate (%)	0.2%	7.6%	23.9%	48.7%	68.0%	80.8%	100.0%	EIII
Gross carrying amount (£m)	119.5	0.3	0.2	0.2	0.1	0.6	3.7	124.6
Lifetime expected credit loss (£m)	0.2	-	0.1	0.1	0.1	0.5	3.7	4.7

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 16.

The company has chosen not to restate comparatives on adoption of IFRS 9 and therefore this reduction 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 main impact of IFRS 15 is 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 unforeseen changes in financial market conditions.

The major part of the company'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 company's performance as the company 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.

Airspace services include variable consideration for traffic volume risk sharing, inflation adjustments, service performance incentives, financing components and pension pass through. 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 over a 15 year period starting from January 2016.

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 company 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.

Transition

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

31. 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.

		Carrying amount at				
		31 March 2018			0	Datained asseigns
	Explanatory	as previously reported under			Carrying amount at 1 April 2018 under	Retained earnings effect at
	notes	IAS 18 and IAS 39	Reclassification	Remeasurements	IFRS 9 and IFRS 15	1 April 2018
	notes	£m	£m	£m	£m	£m
Trade and other receivables		LIII	<u> </u>	±111	LIII	LIII
Non-current						
Receivable from customers (gross)	(i) (iii)	-	12.0	0.1	12.1	0.1
Accrued income	(iii)	12.8	(12.8)	-	-	-
Other debtors	(iii)	-	0.9	-	0.9	-
Current						
Receivable from customers (gross)	(iii)	52.3	60.0	-	112.3	-
Provision for impairment of trade receivables	(ii)	(4.8)	(0.2)	0.3	(4.7)	0.3
Contract assets	(iii)	-	0.2	-	0.2	-
Accrued income	(iii)	60.9	(60.9)	-	-	-
Other debtors	(iii)	3.2	0.4	-	3.6	-
Current tax assets	(iv)	1.7	(1.7)	-	-	-
Trade and other payables						
Non-current						
Contract liabilities	(iii)	-	(11.3)	-	(11.3)	-
Other payables	(iii)	(60.5)	(5.4)	-	(65.9)	-
Accruals and deferred income - other	(i) (iii)	(93.0)	13.9	10.4	(68.7)	10.4
Current						-
Contract liabilities	(iii)	-	(5.4)	-	(5.4)	-
Other payables	(iii)	(42.8)	(0.1)	-	(42.9)	-
Accruals and deferred income - other	(i) (iii)	(72.3)	8.7	1.2	(62.4)	1.2
Current tax liabilities	(iv)	-	1.7	(2.3)	(0.6)	(2.3)
						9.7

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 under previous accounting standards and the effect of reporting 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.

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
Revenue	(i)	735.3	(2.3)	733.0
Operating costs	(ii)	(621.1)	(0.1)	(621.2)
Operating profit		114.2	(2.4)	111.8
Investment income Other finance costs	(i)	1.5 (28.4)	1.1	2.6 (28.4)
Profit before tax	_	87.3	(1.3)	86.0
Tax	(iv)	(14.5)	0.3	(14.2)
Profit for the year attributable to equity shareholders	_	72.8	(1.0)	71.8

Explanatory notes to tables c) and d):

(i) the change in timing of recognition of Airspace revenue relating to pension pass through, as explained under b) above. (ii) the effect of the adoption of IFRS 9, as explained under a) above.

⁽iii) 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. (iv) the tax impact of the adjustments in (i) - (iii).

31. Changes in accounting policies (continued)

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

Balance sheet

balance sneet	Explanatory notes	Under previous accounting standards £m	Effect of reporting under IFRS 9 and IFRS 15	As reported under IFRS 9 and IFRS 15 £m
Non-current assets Trade and other receivables		LIII	ш	LIII
- Receivable from customers (gross) - Accrued income - Other trade and other receivables	(iii) (iii)	- 14.1 7.5	14.1 (14.1)	14.1 - 7.5
Trade and other receivables Other non-current assets	_	21.6 1,244.4	-	21.6 1,244.4
Current assets Trade and other receivables		1,266.0	-	1,266.0
- Receivable from customers (gross) - Provision for impairment of trade receivables - Contract assets - Accrued income - Other trade and other receivables	(iii) (ii) (iii) (iii)	47.7 (4.0) - 51.2 21.7	50.9 0.1 0.3 (51.2)	98.6 (3.9) 0.3 - 21.7
Trade and other receivables Current tax assets Other current assets	(iv)	116.6 2.0 168.6	0.1 (2.0)	116.7 - 168.6
Total assets	_	1,553.2	(1.9)	1,551.3
Current liabilities Trade and other payables - Contract liabilities - Accruals and deferred income - other - Other trade and other payables	(iii) (i) (iii)	(102.2) (131.6)	(37.9) 48.5	(37.9) (53.7) (131.6)
Trade and other payables Other current liabilities	_	(233.8) (57.1)	10.6	(223.2) (57.1)
	_	(290.9)	10.6	(280.3)
Net current (liabilities)/assets	_	(3.7)	8.7	5.0
Non-current liabilities Trade and other payables - Contract liabilities - Accruals and deferred income - other - Other trade and other payables	(iii) (iii)	(58.5) (104.4)	(35.6) 35.6	(35.6) (22.9) (104.4)
Trade and other payables Other non-current liabilities	_	(162.9) (524.9)		(162.9) (524.9)
Total liabilities		(978.7)	10.6	(968.1)
Net assets	_	574.5	8.7	583.2
Equity Called up share capital Hedge reserve Special reserve Other reserves Retained earnings	(i) (ii) (iv)	10.0 0.5 34.9 9.4 519.7	8.7 8.7	10.0 0.5 34.9 9.4 528.4
Total equity	_	5/4.5	8.7	583.2

Explanatory notes to tables c) and d):
(i) the change in timing of recognition of Airspace revenue relating to pension pass through, as explained under b) above.
(ii) the effect of the adoption of IFRS 9, as explained under a) above.
(iii) 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.

(iv) the tax impact of the adjustments in (i) - (iii).

32. Events after the reporting period

In May 2019, the Board approved and the company paid an interim dividend for the year ending 31 March 2020 of £2.90 per share (totalling £29.0m).

- 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.
- 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 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.
- 5 Impact score is a measure of delay placing greater weight on long delays and departures in the morning and the evening peaks.
- 6 Variability score is a daily excess delay score based on weighted delays exceeding pre-determined thresholds on a daily basis.
- 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.