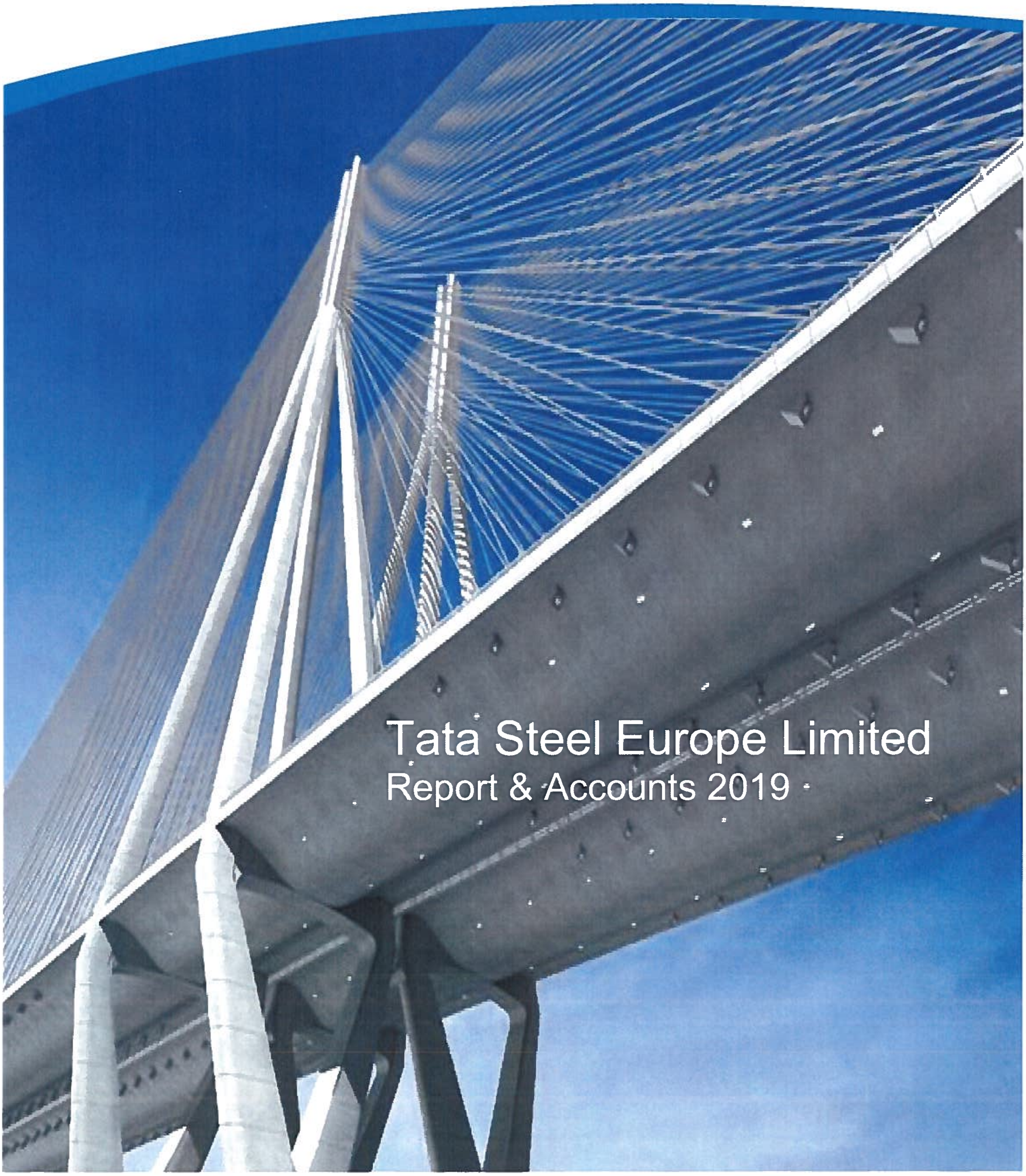
TATA STEEL

TATA



Tata Steel Europe Limited

Report & Accounts 2019

Contents

A1. Group's business

Introduction

The directors have pleasure in presenting their strategic report together with the audited accounts of Tata Steel Europe Limited ('TSE' or the 'Company'), and TSE and its consolidated subsidiary companies (the 'Group'), for the year ended 31 March 2019.

Ownership

TSE is a wholly-owned subsidiary of T S Global Holdings Pte. Limited ('TSGH'), an unlisted company registered in Singapore. The ultimate parent company is Tata Steel Limited ('TSL'), which is a company incorporated in India with shares listed on BSE Limited (formerly the Bombay Stock Exchange Limited), Mumbai and the National Stock Exchange of India, and with global depositary receipts listed on the London and the Luxembourg Stock Exchanges. TSE's main subsidiaries are Tata Steel IJmuiden BV ('TSIJ') and Tata Steel UK Limited ('TSUK'), which are companies incorporated in the Netherlands and the UK respectively.

Principal activities

The principal activities of the Group in 2018/19 comprised the manufacture and sale of steel products throughout the world. The Group's continuing operations produced carbon steel by the basic oxygen steelmaking method at its integrated steelworks in the Netherlands at IJmuiden and in the UK at Port Talbot. During 2018/19 these plants produced 10.3mt of liquid steel, 0.4mt lower than 2017/18 due mainly to an outage in Port Talbot to extend the life of Blast Furnace 5 and some operational issues in both IJmuiden and Port Talbot. During the year 7.1mt of liquid steel was produced at IJmuiden (2017/18: 7.1mt) and 3.2mt at Port Talbot (2017/18: 3.6mt).

The Group organises its commercial activities into strategic sectors and these sector teams identify demand, which is met from a single, pan-European, supply chain function. The Group has sales offices, stockholders, service centres and joint venture or associate arrangements in a number of markets for the distribution and further processing of steel products.

Principal end user markets for the Group's steel products are engineering, construction, automotive, retail and packaging.

Further information on TSE can be obtained from either the company's website (www.tatasteeleurope.com) and/or the TSL 2018/19 Annual Report & Accounts which may be obtained from its registered office at Bombay House, 24 Homi Mody Street, Mumbai, 400 001.

Strategic activities

On 30 June 2018 TSL and thyssenkrupp AG ('tk') signed definitive agreements to create a new 50:50 joint venture ('JV') company called thyssenkrupp Tata Steel ('tkTS'). On 10 May 2019 TSL and tk announced that activities to complete the JV had been suspended, as it was anticipated that the JV would not receive merger control approval from the European Commission ('EC').

The assets and liabilities within the proposed contributed group in TSE have not been reclassified to held for sale at 31 March 2019 and disclosed as a discontinued operation in the TSE 2018/19 financial statements as completion of the transaction was not highly probable due to the unlikelihood of obtaining merger control approval from the EC.

During the year TSE successfully completed a major project to extend the life of Blast Furnace 5 at Port Talbot. The project comprised a capital investment of £56m and is expected to extend the life of the furnace by 5 to 7 years and improve its operational stability.

On 8 May 2018 TSE announced its intention to divest its Cogent, Kalzip, Firsteel, Engineering Steels Service Centre (Wolverhampton), and Tata Steel Istanbul Metals (Colors) businesses. The disposal of the Kalzip business to Donges SteelTec GmbH completed on 1 October 2018 and on 4 June 2019 TSE signed a business purchase agreement to divest the Firsteel business. Discussions to divest the other businesses remain ongoing.

A2. Principal risks and uncertainties

The principal risks and uncertainties affecting the Group and the actions taken are as follows:

Risks

Brexit

The final implications of the 2016 UK referendum and subsequent changes to its relationship with the European Union are still to be determined.

Negotiations between the EU and the UK and the evolving political situations are being monitored by a TSE Brexit Working Group, which includes an assessment of the threats and opportunities that Brexit may impose on the EU steel market and TSE customers. This has included the identification of various scenarios to estimate potential impacts on TSE's business and the identification of suitable controls and contingencies to mitigate these impacts.

TSE is also actively working with its suppliers and shipping and logistic partners to ensure that any impacts from changes in processes are prepared for and to minimise the impacts on its supply chain and customers. This has involved early engagement and a collaborative approach to risk management.

The changes that will follow Brexit has required TSE to review the existing risks in its risk register. A specific example of this is in relation to the European Union Emissions Trading Scheme ('EUETS'). The management of this risk has involved an increase in advocacy to maintain carbon leakage protection and compliance during the transition period.

TSE is committed to maintaining close dialogue with its customers and partners to ensure that all potential Brexit scenarios are planned for, short term disruption is minimised and opportunities for the realignment of supply chains are identified.

Health, safety, environmental and other compliance matters

TSE's priority at all times is the health, safety and wellbeing of staff and contractors. Available capital funding is therefore prioritised on these schemes. The Group has policies, systems and procedures in place aimed at ensuring compliance and there is a strong commitment from the TSE Board and Executive Committee to continuously improve health and safety performance, enforce compliance and to minimise the impact of the Group's operations on the environment.

The Group's businesses are subject to numerous laws, regulations and contractual commitments relating to health, safety, the environment and regulatory compliance in the countries in which it operates. The risk of substantial costs, liabilities and damage to reputation related to these laws and regulations are an inherent part of the Group's business.

Improving environmental performance and its linkage to "license to operate" are at risk from increased unit costs for the EU ETS and a reduction in the free allocation of CO_2 allowances (see Environment KPI on page 8). There is an expectation that after 2020 the allocation of CO_2 allowances under EU ETS are likely to be substantially lower than projected emissions. In addition, there are specific environmental performance targets linked to financial penalties in both the UK and Netherlands.

TSE deploys a positive culture of managing safety, health and environmental ('SHE') risks. This includes the escalation of these risks to a TSE SHE Committee.

A key area of focus for TSE's operations and procurement is to minimise environmental impacts by selecting raw material on its environmental credentials (as well as quality) in order to minimise landfill tonnages and to identify external opportunities for use/sale of by-products.

The Group continues to engage with EU legislators to secure a level playing field, for example in areas such as the REACH (Registration, Evaluation, Authorisation & restriction of Chemicals) scheme and EU ETS. The disparities in legislation across steel producers in different countries reinforce the continued need to build brand reputation and customer loyalty.

A2. Principal risks and uncertainties

Risks

Our workforce

Maintaining a critical mass of engineers and other specialist functions continues to be a challenge within TSE due to the demand for these skills in the locations in which the business operates. Strategic collaborations continue with Technical Universities and other relevant schools and talent programmes for graduates, functional trainees and apprentices to improve quality and retention.

The long-term success and competitiveness of steel making in the EU requires the ongoing partnership with trade bodies and continuance of beneficial industrial relations in the face of future uncertainties. Strong succession planning must be implemented to ensure continuity in the management of the complex challenges facing TSE.

Financing

TSE is financed in part through external bank facilities referred to as the senior facility agreement ('SFA'), which will require refinancing in the future. The SFA facility is provided by a syndicate of international banks and provides flexibility to fund future capital expenditure schemes. Servicing of interest payments in challenging trading conditions continues to represent a risk to the business.

A significant amount of funding continues to be provided to TSE from TSL Group companies.

In order to effectively manage this risk, the forecast requirements of the Group continue to be closely monitored and 'downside' sensitivities are undertaken regularly to ensure the adequacy of facilities.

Significant attack on Information or Operational Technology

The threat of cyber-attacks has continued as a genuine business risk due to large scale criminal activity targeting major businesses across all industries. TSE is committed to having the right cyber security standards and practices to ensure the company is equipped to defend itself from cyber incidents.

Two different types of technology are at risk from attack, that can be exploited intentionally or otherwise, and are owned and supported by a number of different functions; Operational Technology (OT) hardware and applications or "process controls" and shared Information Technology (IT).

Significant investment is committed to combat the threats that have emerged from cyber incidents under the IT security programme, including the development of a central Security Operations Centre for incident resolution, proactive and forensic capabilities, and ongoing emerging threat intelligence. Process control security projects are taking place in the business operations, including local security incident and event detection.

Trading in the global steel market

The Group's financial performance is influenced by the global steel market and the economic climate in Europe.

Regulators from around the world are protecting national steel industries from foreign competition, especially China and the US, with the US in particular imposing additional duties of 25% on imports of Steel from the European Union, Mexico and Canada. However, as US steel manufacturers cannot currently meet in full market demand in the US, TSE alongside US customers continues to lobby the US Government. These tougher international trade practices will impact the global market, further driving overcapacity and price pressures.

The EU ETS and UK energy costs continue to absorb additional resources when compared to competitors not subject to the same legislation. A CO_2 EU Border Tax as part of a drive to reduce CO_2 emissions from what the EU produces and consumes has continued. However, the impact of Brexit on this scheme and TSE is unknown.

Overcapacity remains, and the raw materials supply market has greater consolidation than steel, which suppliers with strong market power may use to their advantage.

The Group continues to invest in commercial and operational improvement initiatives, delivering significant cost savings and differentiated propositions in the market.

A2. Principal risks and uncertainties

Risks	
Long term competitiveness	
The Group's manufacturing facilities are largely based in Europe, which is a relatively high cost area and where demand growth for steel products is lower than in developing parts of the world. Increasing raw material costs and competing materials challenge the long-term competitiveness of TSE's strip products. In order to maintain its ability to successfully compete in the long term the Group is undertaking a number of initiatives, including cost reduction measures and business specific improvement plans.	Alongside other specific compliance controls TSE sets clear direction on specific behaviours and ethics expected of employees and how these link to achieving TSE objectives. The Group will continue to target and sell a high value, differentiated product mix.
Performance and operations	
Economic growth has recently been slowing globally due mainly to an economic slowdown in China and US protectionism. This has resulted in lower demand growth and margins for the steel industry. Industry forecasts are predicting that the EU steel market spread are likely to soften in 2019/20. Whilst the Group seeks to increase differentiated/premium business that is less dependent on steel market price movements, it still retains focus in both the UK and IJmuiden on improving its operations, consistency, and taking measures to protect against unplanned interruptions and property damage.	Best practices in asset management, enhancing technical knowledge and skills, improving process safety, targeted capital expenditure and focused risk management remain as priorities for the business.
Exchange rates	
The Group derives most of its revenue in the EU, but has substantial assets and sales in the UK. Major raw material purchases are denominated mainly in US dollars. As a result, the Group is impacted by the relationship between sterling, the Euro and the US dollar. In general, a strengthening of sterling reduces the sterling value of export revenues from the UK, it improves the relative competitiveness of steel producers in countries with weaker currencies enabling them to discount prices in the UK market, and it exposes customers to similar pressures leading to a reduction in demand for steel in the UK. In contrast, a strengthening of sterling reduces the sterling cost of the Group's raw materials, which are purchased predominantly in US dollars.	The Group operates a hedging policy to minimise the volatility of rapid and significant movements in these exchange rates. The Group is also actively diversifying its geographic customer base which helps mitigate dependence on particular currency zones.

A2. Principal risks and uncertainties

Risks
Raw materials and energy

The Group has limited access to captive iron ore and coal supplies, therefore access to and pricing of raw materials supplies depend, to a large extent, on worldwide supply and demand relationships, notably iron ore, metallurgical coal and scrap.

The Group maintains operations through strong supplier relationships and flexible sourcing. The Group continues to closely monitor market conditions and seeks to put in place contractual arrangements to ensure security of critical supplies.

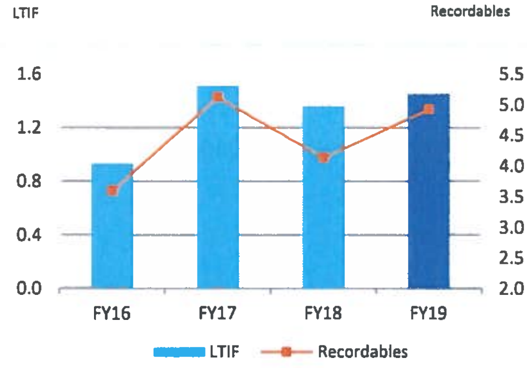
The Group is working with suppliers to agree competitive prices and has agreed a range of pricing bases, whilst adjusting its commercial portfolio to maximise opportunities presented by moves to shorter term pricing.

Exposure to energy shortages and price increases are mitigated by accelerating the implementation of self-generation of electricity and by initiatives to improve the Group's energy efficiency which requires capital expenditure.

A3. Key Performance Indicators (KPIs)

KPI	Rationale	Comments

Safety:



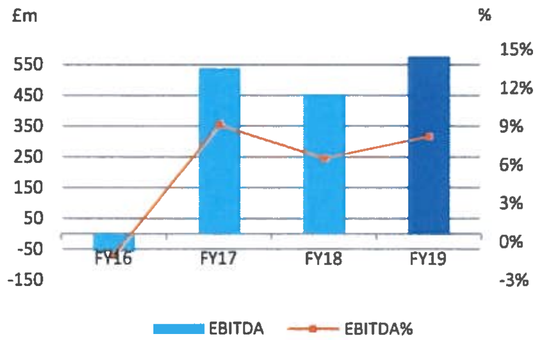
Rationale

- This shows the lost time injury frequency rate ('LTIF') from continuing operations to provide a basis of comparison with industry peers. The frequency rate (as with 'recordables') is reported per million hours worked as a rolling twelve-month average.
- Recordables are defined as all work related incidents resulting in harm to a person or persons excluding those that require no more than first aid treatment.

Comments

- LTIF was 1.45 in 2018/19, which compares to 1.36 in 2017/18.
- The recordables rate, which includes lost time injuries, increased from 4.13 in 2017/18 to 4.92 in 2018/19.
- There continued to be a high number of slips, trips and falls during the year. As part of an ongoing improvement programme, various initiatives were undertaken to understand mindset and behaviour to improve hazard awareness, to accelerate deployment of standards and to improve the maturity of the Group's health & safety management system.

EBITDA & EBITDA Margin:



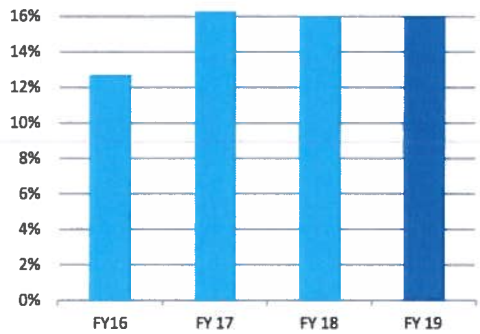
Rationale

- EBITDA is defined as earnings from continuing operations before restructuring, impairments, exceptional items, profit/loss on disposals, interest, tax, depreciation and amortisation. EBITDA margin shows EBITDA as a percentage of Group revenue.
- EBITDA margin measures how efficiently revenue is converted into EBITDA.

Comments

- EBITDA in 2018/19 increased to £576m (2017/18: £453m) and the EBITDA margin to 8% (2017/18: 6%) due mainly to improved steel margins, which more than offsets lower production and sales volume.
- See page 14 for a reconciliation of statutory profit to the EBITDA Alternative Performance Measure (APM).

Working capital/turnover:



Rationale

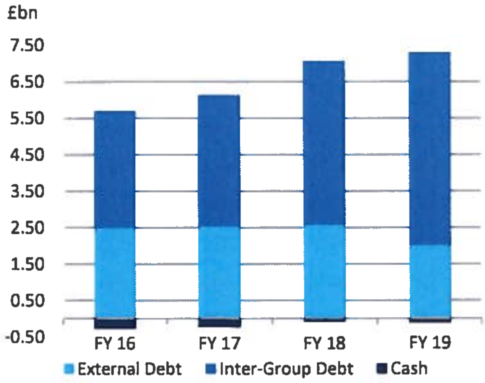
- This shows year-end working capital as a percentage of the annualised quarter 4 revenue for each relevant year.
- It measures how efficiently the Group manages its raw material, steel and other inventories, and payment terms and cash flow with suppliers and customers.
- It excludes the impact of arrangements with TSL group companies (see Note 35).

Comments

- The working capital to turnover ratio was 16.0% for 2018/19, unchanged from 2017/18.

A3. Key Performance Indicators (KPIs)

Net Debt:

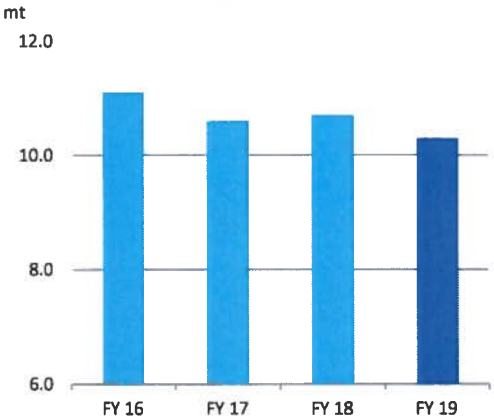


- This shows total debt less cash and cash equivalents, and short-term investments.
- It reflects the Group's overall funding position.
- Inter-group debt is not serviced.

- Net debt at 31 March 2019 was £7,180m (2017/18: £6,971m). see Note 33.
- The increase in net debt is due to an increase of £798m in inter-group debt offset by a reduction of £556m to external debt, an increase of £31m to cash and a £2m increase in the fair value of forward rate agreements.
- The arrangements with Tata Steel Global Procurement Co. Pte Limited ('Proco') (see Note 35) continued to favourably impact net debt levels.

KPI	Rationale	Comments

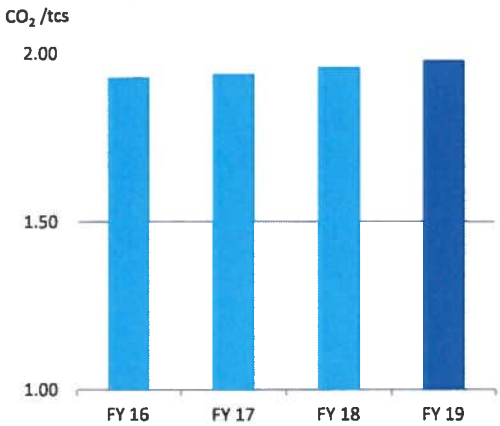
Volume Performance:



- Liquid steel production from operations. This reflects the level of physical activity and is a key indicator of the manufacturing performance of upstream assets.
- It is also a measure by which the steel industry compares the size of companies on a global scale.

- 10.3mt in 2018/19 (2017/18: 10.7mt) due mainly to an outage in Port Talbot to extend the life of Blast Furnace 5 and some operational issues in both IJmuiden and Port Talbot.
- During the year 7.1mt of liquid steel was produced at IJmuiden (2017/18: 7.1mt) and 3.2mt at Port Talbot (2017/18: 3.6mt).

Environment:



- The Group measures its CO_2 emissions per tonne of crude steel produced through the integrated steelmaking route, including direct and indirect emissions.

- Emissions were 1.98 in 2018/19 which represented a slight increase when compared to the previous year (2017/18: 1.96) due to of various operational issues and the outage associated with the BF5 life extension project at Port Talbot.

Business environment and prospects

Dynamics of the business

The steel industry is cyclical. Financial performance is affected by general macroeconomic conditions that set the demand for steel from downstream industries, as well as by available global production capacity, raw material prices and exchange rate relativities. As integrated steel players seek to maintain high capacity utilisation, changes in margins across regions lead to changes in the geographical sales pattern. As a result, in addition to market developments in the UK and mainland Europe, changes in the global market for steel influence the financial performance of TSE.

Economic climate

Global GDP growth in 2018 was 3.2%, unchanged from 2017. The eurozone economy grew by 1.8% in 2018 compared to 2.5% in 2017. Growth was negatively impacted by a slowing Chinese economy and US protectionism. Growth in the UK economy eased to 1.4% in 2018 (2017: 1.7%) due mainly to ongoing uncertainty towards Brexit which caused businesses to postpone decisions regarding future investment. GDP growth in China decelerated in 2018 to 6.6% (2017: 6.9%) due to lower domestic demand. The Chinese government is seeking to transform the economy from being investment led to become more consumer driven, as its cost advantage is being eroded.

Global steel market

Global steel demand growth in 2018 decreased to 3.9% (2017: 4.8%). Demand for steel in China increased by 6.0% (2017: 8.2%). Steel demand in the EU grew by 2.2% (2017: 3.4%). Output growth in the steel using sectors in the EU eased in the second half of 2018, especially in the automotive sector. Output of passenger cars was negatively impacted by the introduction of new emission testing procedures and a slowdown in demand both inside and outside the EU.

In 2018 global steel production increased by 5.5%, unchanged from 2017. Steel production in China increased by 8.7% (2017: 6.1%) and equated to 52% of global steel production. In the EU output decreased by 0.4% (2017: increase 3.9%).

In 2018 the EU was a net importer of steel at 16.9mt (imports: 46.3Mt, exports: 29.4Mt). Exports from China to the rest of world decreased again in 2018 to 68.8Mt (2017: 74.8Mt, 2016: 108.1Mt).

European steel spot prices, based on Hot Rolled Coil ("HRC") in Germany (parity point), weakened during the fiscal year from €568/t in the first quarter to €520/t in the final quarter. As economic growth weakened, capacity utilisation in the global steel industry reduced causing steel prices and margins to fall.

Raw materials

The principal raw materials used in TSE's carbon steelmaking processes are iron ore, metallurgical coal and steel scrap. The market reference price of iron ore fines (China CFR 62%) in 2018/19 at US$72/t remained broadly unchanged from the previous year. The hard coking coal spot price (Australia FOB) at US$202/t was also broadly unchanged compared to the previous year. The German benchmark E3 scrap price increased by €18/t to €288/t in 2018/19 compared to the previous year.

Trade

Changing trade flows in the global steel market have caused an increase in the amount of anti-dumping measures. Amongst others the US and EU have issued duties for a broad range of products. In 2018 the US government imposed a 25% tariff on steel imports as part of its "Section 232" ruling. In response, and to counter trade diversions resulting from the US measures, the EU imposed a 25% tariff on steel imports once a quota had been filled.

In 2018 steel demand in the EU increased by 5.1mt (2017: 2.0mt). Deliveries by EU mills increased by 2.5mt (2017: 2.2mt) whilst imports increased by 2.6mt (2017: decrease 0.2%). The market share for imports into the EU increased to 16.9% (2017: 15.7%).

Prospects for 2019

The World Steel Association predicts that growth of global steel demand will decelerate to 1.4% in 2019 in line with reduced economic growth. EU steel demand is expected to grow by only 0.5% in 2019. Margins are expected to remain under pressure in 2019 as further reductions to global overcapacity are unlikely.

Civil society advocacy

TSE continuously engages with Governments at various levels and other civil society stakeholders such as non-Governmental organisations to inform the elements of public policy and regulation relevant to its business. Its objective is to help create the right conditions for a sustainable steel industry in terms of a level playing field versus international competitors, a competitive cost base and attractive conditions for innovation and investment. Engagement is also essential in keeping stakeholders informed of key developments in the business, such as the proposed joint venture between TSL and tk.

Following the UK's decision to leave the European Union (EU), TSE is monitoring closely the UK's future trading relationships and is engaging with various political stakeholders to communicate the opportunities and challenges that these changes may present to TSE, and to provide input on future policies such as UK trade defence measures. Brexit, and the risk of a "no-deal" in particular, continues to set an uncertain environment for trade policy and therefore remains a major focus of TSE's advocacy agenda.

The fight for a level playing field against unfairly priced steel imports 'dumped' into Europe was an ongoing area of engagement in the last year, including a focus on the threat to steel trade that arose with the USA's imposition of 25% tariffs on steel imports from June 2018. Therefore, the need for a structural reform of trade policies, in particular to address global over capacity, continues to be a key part of TSE's advocacy agenda.

Another important area of engagement with civil society stakeholders at the EU level relates to climate change and the need for the steel industry to reduce its CO_2 emissions in order to meet the targets set by the EU and national governments following the 2015 Paris agreement. In particular, the focus has been on the facilitation of break-through technologies like HIsarna whilst remaining competitive (see page 13 for detail on the new HIsarna technology).

Employees

Health and safety

Health and safety continues to be the Group's first priority as it strives to achieve its ambition of being the benchmark for health and safety in the steel industry.

Following the tragic fatal injury to Mr Kari Laiho in July 2017 when working at the Naantali Service Centre in Finland, a Group-wide standard code of practice on coil banding and strapping has been developed and is currently being deployed across TSE.

Training for Group Senior Managers focusing on their leadership role related to health & safety has been completed. This was extended to more junior Business Senior Managers during 2018/19.

The combined lost time injury frequency ('LTIF') rate in 2018/19 for employees and contractors deteriorated to 1.45 compared to 1.36 in the previous year. The recordables rate, which includes lost time injuries as well as minor injuries, also deteriorated from 4.13 in 2017/18 to 4.92 in 2018/19. In response to the deterioration, and as part of an ongoing improvement programme, various initiatives were undertaken during the year to improve hazard awareness; to accelerate deployment of standards; to improve maturity of the Group's health & safety management system; and to understand mindset & behaviour in regard to health & safety. These will continue into 2019/20.

Employee numbers

At 31 March 2019 the number of employees in continuing operations in the Group increased to 21,300 compared to 21,100 at 31 March 2018.

On 8 May 2018 TSE announced its intention to divest its Cogent, Kalzip, Firsteel, Engineering Steels Service Centre (Wolverhampton), and Tata Steel Istanbul Metals (Colors) businesses. The Kalzip business has been divested which completed on 1 October 2018 and included 223 employees on the date of disposal, and on 4 June 2019 TSE signed a business purchase agreement to divest the Firsteel business.

Employment policies

There are well established and effective arrangements at each business location for communication and consultation with works councils and trade union representatives to systematically provide employees with information on matters of concern to them. Well-developed policies and procedures have been operating in all parts of the Group for a considerable time for the purpose of consulting and negotiating with trade unions, the European works council and employee representatives on a regular basis, so that views of employees can be considered in making decisions that are likely to affect their interests.

TSE, as part of a trans-national, multi-cultural group, is committed to providing an environment that recognises and values the differences in employee backgrounds and skills and to provide equality of opportunity for all employees regardless of gender, sexual orientation, part-time or fixed term status, parental responsibilities, marital status, race, disability, colour, national or ethnic and seeks to maximise the benefits available from a diverse workforce.

During the year ended 31 March 2019 there has been regular engagement with employee representatives of our European Works Council and across the organisation regarding the potential joint venture with tk and this dialogue will continue into the year ahead.

UK Steel Enterprise Limited ('UKSE') is the Company's subsidiary that helps the economic regeneration of communities affected by changes in the UK steel industry and it has delivered packages of support measures to a variety of businesses across all steel areas of the UK to help them create new job opportunities for steel communities. UKSE continues to be very active in response to the restructurings undertaken in the UK in recent years.

UK Gender pay

In the UK, under the Equality Act 2010 (Gender Pay Gap Information) Regulations 2017, employers with more than 250 employees are required to publish annually their gender pay gap information by reporting the percentage differences in pay between their male and female employees for the previous year. TSUK first published results in 2018 and again this year has published its results on the UK Government website and also included the full gender pay report on the company's external internet site.

Relative to national and industry statistics TSUK's gender pay gap (0.58% mean gender pay gap and 5.11% median gender pay gap) continues to be at the lower end. Compared to the previous year, female representation increased slightly in the business to approximately 11%. The company continues to focus on steps to further enhance the diversity in its organisation because it believes having the right people in the right job is important.

Pension arrangements

The principal defined benefit pension scheme in the Group at 31 March 2019 is the British Steel Pension Scheme ('BSPS') in the UK. This came into existence on 28 March 2018 as part of the regulated apportionment arrangement ('RAA') agreed between TSL, the Trustee of the old BSPS, the UK Pensions Regulator and the Pension Protection Fund ('PPF').

The principal pension scheme in the Netherlands is the Stichting Pensioenfonds Hoogovens scheme ('SPH') which is classified in the financial statements as a defined contribution scheme.

Further details on these schemes are provided in Note 21.

Modern Slavery Act

Section 54 of the Modern Slavery Act 2015 requires relevant organisations carrying on business in the UK to publish a statement setting out the steps taken to ensure that no slavery or human trafficking is taking place within the organisation or its supply chains. The TSE board has approved a statement setting out the measures taken by the Group during the financial year ended 31 March 2019. The statement will be issued by TSE on behalf of itself and its relevant UK subsidiary companies and published on the TSE website.

Environment

Policy

The Group is committed to minimising the environmental impact of its operations and its products through the adoption of sustainable practices and continuous improvement in environmental performance. As such, respect for the environment is critical to the success of the Group. To implement its environmental policy, systems are in place to manage and minimise the effects of the Group's operations. For example, 100% of manufacturing operations are certified to the independently verified international environmental management standard, ISO 14001.

Climate change is one of the most important issues facing the world today. The Group recognises that the steel industry is a significant contributor to man-made greenhouse gas emissions as the manufacture of steel currently unavoidably produces CO_2.

However, the Group's products are also part of the solution to climate change. Steel has inherent environmental advantages, as it is durable, adaptable, reusable and recyclable. It is used, for example, in lighter, stronger and safer transport systems, and in affordable and energy-efficient modular homes. As a result, CO_2 emissions in steel production can be offset by reductions in direct and indirect emissions through the life cycle of steel products, achieved through effective product development and design, and through recycling at end-of-life.

Furthermore, the Group aims to contribute positively to the communities around or near to its operations and encourages biodiversity and nature conservation.

Energy efficiency and CO_2 emissions

In the Netherlands, the Group participates in a voluntary agreement ('MEE Covenant') with the Dutch government regarding energy efficiency improvements over the period 2017 to 2020 (with the previous agreements extending from 2009 to 2012 and 2013 to 2016 inclusive). The primary requirement of the agreement is an energy efficiency improvement of 2% per annum, covering both energy used within the manufacturing process and energy saved across the product life cycle. The total energy efficiency improvement in 2018 was 6% (2017: 7%).

In the UK, as a result of being in a Climate Change Agreement ('CCA'), the Group has continued to benefit from reduced rates in relation to the Climate Change Levy ('CCL'). This CCA originally included a specific energy reduction target of 7% by 2020 (compared to 2008). However, a 'target stringency rule' in the scheme was triggered, with the need to vary the agreement and revise the baseline, as a result of the divestment of Speciality Steels in 2017. This assessment led to a tightening of the final milestone period (by 2020 compared to 2008) to 15.5% specific energy reduction. The third milestone period (2017 and 2018 inclusive) remained unchanged at 5.83%. Achievement of the remaining milestone targets through energy reduction or use of the buyout option will allow the Group to continue to benefit from reduced rates of CCL.

In April 2014, the UK Government introduced an exemption from CCL for certain metallurgical and mineralogical processes. As a result, exposure to CCL for TSE significantly reduced from 2014/15 onwards. However, the CCA (and the revised 15.5% reduction target) was retained in order to continue to allow a reduced rate of CCL for those processes not covered by the exemption. The Group's UK operations achieved an energy reduction of 12.1% in the second milestone period (2015 and 2016 inclusive) compared to a target of 4.7%. This over-achievement, together with the over-achievement in the first target period, will be used to support achievement of the third (2017 and 2018 inclusive) and the fourth (2019 and 2020 inclusive) milestone period targets. A clearer position with respect to the likely position will be available at the end of May 2019 following completion of the third milestone period report.

More generally, and as discussed elsewhere in this report, the Group continues to invest in short to medium term CO_2 emission reduction and energy efficiency improvements. In addition to these improvements, the Group is also working on a longer term major research and development project to develop a new smelting reduction technology ('HIsarna') to produce steel from lower grade raw materials without the need for coke making or agglomeration processes, thereby improving efficiency and reducing energy consumption as well as reducing CO_2 emissions.

The Group met its environmental obligations in Phase 1 (2005 to 2007) and Phase 2 (2008 to 2012) of the EU ETS and expects to do the same in Phase 3 (2013 to 2020). The Group was in surplus over Phase 2, primarily as a result of generally lower production levels since October 2008. The Group is on course to emit more CO_2 than the allowances granted to it in aggregate over Phase 3, but the effect of this will be limited by a number of mitigation actions taken, such as the carry-over of a retained surplus from Phase 2. The emission rights trading price at 31 March 2019 was €22 per tonne of CO_2 (31 March 2018: €13).

TSE CO_2 emissions (tonnes per tonne of crude steel) for continuing operations in 2018/19 increased to 1.98 compared to 1.96 in 2017/18 due to various operational issues and the outage associated with the BF5 life extension project at Port Talbot in late 2018.

Environmental complaints

The unusually dry summer in 2018, together with some operational issues, resulted in relatively high numbers of complaints (primarily in relation to dust) from communities close to our operations in IJmuiden (specifically Wijk an See) and Port Talbot. As part of its overall strategy to reduce environmental complaints the company organises regular meetings with citizens of local communities to listen to people's main issues and concerns regarding the Company's activities and to inform them about measures taken and to be taken by the Company to reduce emissions.

Climate change taxes, levies and compensation

In response to concerns being raised by energy intensive industries, including steel, in relation to the effects that climate change related taxes and levies such as the carbon price floor and the emission costs under Phase 3 of the EU ETS are having on international competitiveness, a compensation package for energy intensive industries was announced in principle by the UK Government in 2012. In the March 2014 Budget, the UK Government announced an extension of the already announced compensation package to 2019/20 and that the carbon price floor rate would be capped from 2016/17 to 2020. Furthermore, compensation to energy intensive industries for increased energy prices resulting from the Renewables Obligation & from Feed in Tariffs (FiTs) has been continued.

Research & development

Research & Technology programme

Approximately 80% of the TSE technology programme was developed under the governance of the Global Expert Committees ('GECs') of Tata Steel in the year, which cover process development and product market sector developments. The remaining capacity was primarily allocated to the Strategic Thrust programme for various projects including:

- HIsarna technology to produce steel from lower grade raw materials without the need for coke making or agglomeration processes. The operations of the pilot plant were transferred during the year to production, but research activity continued to focus on CO_2 reduction and capture. Successful research activities were undertaken in the year to test the use of charcoal, scrap and lower grade ores;
- Graphene based value added products focused on the development of high value niche products that need both corrosion protection as well as electrical conductivity. Graphene on nickel plated steel has become part of normal new product developments and upscaling is being investigated;
- Physical vapour deposition, a cold zinc coating technology that allows an extension of TSE's zinc coated product range towards the future UHSS automotive grades well above 1000 MPa;
- Laser texturing of strip surfaces to create unique roughness profiles that combine both formability and paint appearance;
- Ultra-flexible annealing of tubes that allows multiple end product specifications to be produced from a limited number of chemistries, whilst improving the properties of the end product. During the year this project progressed to the business phase of its development;
- Use of advanced analytics to introduce fundamental changes in manufacturing and all TSE business processes like sales and marketing;
- Collaborating with various selected Universities (DENS programme) to accelerate the development of new products in combination with a fully developed small scale route to perform small experiments to feed models that work on an operational scale (300 tonne); and
- Everlasting blast furnace which is a combination of various developments, including modelling and experimental testing of ceramic materials, to prolong the operating times for blast furnaces beyond current limits.

Process development

The process technology programme in 2018/19 was focused on lean and robust manufacturing processes, better use of raw materials and resolution of quality issues. The programme supports the Group's manufacturing and differentiated product strategy. Key achievements during 2018/19 were:

- Continued roll out of improved temperature control on TSE's annealing lines (including the zinc coating facilities) to facilitate the production of products within tighter tolerances and to enhance their capabilities, especially towards high end differentiated products;
- New coke making blend strategies that lower the amount of coking coal needed;
- Supporting high speed zinc coating processes without compromising product quality or coating thickness; and
- Improved models to predict process instabilities in the steel plant to improve yield and reduce environmental issues.

Product market sector developments

A key element of the Group's strategy is the development of new steel products. Structured programmes are initiated for all market segments identified by strategic marketing with particular emphasis on the automotive, construction, packaging, engineering and infrastructure sectors. During the year TSE celebrated the launch of its 200th new product since the programme started 10 years ago.

During 2018/19 a total of 22 (2017/18: 23) new products were introduced into the Group's product portfolio. These included:

- 'Colorcoat Prisma', which gives the customer a warranty of 40 years; and
- 'XPF1000' for the automotive chassis & suspension market, an ultra-high tensile strength hot-rolled grade steel with excellent formability and fatigue properties.

Post balance sheet events

On 26 April 2019 there was a spillage of liquid iron at the Port Talbot site resulting in an explosion. Some relatively minor injuries were suffered by 2 employees. However due to prompt actions taken by TSE employees the impact of this incident was minimised and was not material to the financial statements.

On 10 May 2019 TSL and tk announced that activities to complete the JV had been suspended due to the unlikelihood of obtaining merger control approval from the European Commission ('EC').

On 4 June 2019 TSE signed a business purchase agreement to divest the Firsteel business.

A5. Financial Review

£m	2018/19 Before exceptional items	2018/19 Exceptional items (Note 2)	2018/19 After exceptional items	2017/18 Before exceptional items	2017/18 Exceptional items	2017/18 After exceptional items
Liquid steel production (mt)	10.3	-	10.3	10.7	-	10.7
Steel deliveries (mt)	9.6	-	9.6	10.0	-	10.0
Revenue	**7,070**	-	**7,070**	**6,988**	-	**6,988**
EBITDA	**576**	**(9)**	**567**	**453**	**1,614**	**2,067**
Depreciation and amortisation (net of grants)	(221)	-	(221)	(206)	-	(206)
Operating profit/(loss) before restructuring, impairment and disposals from continuing operations	**355**	**(9)**	**346**	**247**	**1,614**	**1,861**
Restructuring, impairment and disposals	(3)	-	(3)	(38)	-	(38)
Operating profit/(loss)	**352**	**(9)**	**343**	**209**	**1,614**	**1,823**
Net finance costs	(500)	-	(500)	(450)	-	(450)
Share of post-tax results of joint ventures and associates	2	-	2	9	-	9
(Loss)/profit before taxation	**(146)**	**(9)**	**(155)**	**(232)**	**1,614**	**1,382**
Taxation charge	(36)	-	(36)	(42)	-	(42)
(Loss)/profit after taxation from continuing operations	**(182)**	**(9)**	**(191)**	**(274)**	**1,614**	**1,340**
Profit after taxation from discontinued operations	-	-	-	7	-	7
(Loss)/profit after taxation	**(182)**	**(9)**	**(191)**	**(267)**	**1,614**	**1,347**

Profit and loss

Group revenue from continuing operations of £7,070m in 2018/19 was 1% higher than the previous year due to a 5% increase in average revenue per tonne due to stronger EU selling prices, offset by a 4% reduction to deliveries caused mainly by lower liquid steel production.

The operating result before restructuring, impairment and disposals from continuing operations in 2018/19 was a profit of £346m but included an exceptional charge of £9m (2017/18: exceptional credit of £1,614m) in respect of provision adjustments for potential customer claims (£5m) and (£4m) for costs associated with the BSPS pension restructuring. The net exceptional credit in 2017/18 comprised a net pension credit of £1,640m arising from the BSPS RAA and an exceptional charge of £26m in respect of a provision for potential customer claims. Excluding these exceptional items the operating result before restructuring, impairment and disposals from continuing operations in 2018/19 was a profit of £355m, £108m higher than the previous year due to improved steel margins caused primarily by increased steel selling prices and from the sale of CO_2 allowances of £211m as part of preparations for the planned JV, offset by lower liquid steel production and sales volume caused mainly by a life extension repair to Blast Furnace 5 in Port Talbot and some operational issues in the heavy end area in IJmuiden.

Excluding the exceptional items, EBITDA in 2018/19 at £576m was £123m higher than the previous year due to the same reason. This equated to an EBITDA margin of 8% (2017/18: 6%).

The operating result before exceptional items from continuing operations was a profit of £352m in 2018/19, £143m higher than 2017/18 due to the improved trading result and lower restructuring and impairment charges in 2018/19. The restructuring and impairment charge of £3m in 2018/19 (2017/18: £38m) included some impairment charges against assets in mainly the UK (see Note 2).

Net finance costs in 2018/19 of £500m were £50m higher than the previous year due mainly to increased charges of £61m on increased intra-group borrowings, offset by lower charges of £13m on bank and other borrowings. The Group's share of post-tax results of joint ventures and associates in 2018/19 was a profit of £2m (2017/18: £9m) due to lower profitability in mainly Dutch based entities where TSE has a non-controlling interest.

Taxation from continuing operations was a net charge of £36m in 2018/19, £6m lower than 2017/18 due to a £24m reduction to UK deferred tax charges recognised in the income statement to offset a net deferred tax credit in reserves relating mainly to BSPS actuarial losses, offset by an increase of £18m to overseas deferred tax contained mainly in the Netherlands and France .

The loss after tax before exceptional items from continuing operations in 2018/19 was £182m, £85m better than 2017/18 due mainly to the higher operating result offset by increased finance charges.

The Group result after taxation and exceptional items in 2018/19 was a loss of £191m (2017/18: profit of £1,347m) with £63m (2017/18: £842m profit) attributable to the owners of the company and £128m (2017/18: £505m profit) attributable to the non-controlling interest in TSUK.

Financing

The majority of the external borrowings of the Group are accounted for by the SFA which was successfully refinanced in October 2014. The SFA is secured by guarantees and debentures granted by material subsidiaries of TSE (other than TSN and its subsidiaries) and by a share pledge over the shares in TSN. The SFA has a financial covenant which sets an annual maximum capital expenditure level. The SFA comprises:

- a bullet term loan facility of €370m for five years;
- an amortising term loan facility of €1,500m for seven years (amortisation starts from the end of year five);
- an amortising term loan facility of US$379.5m for seven years (amortisation starts from the end of year five); and
- a revolving credit facility of £700m for six years (this facility may be extended by a further year if certain conditions are satisfied).

The SFA term loans are denominated in euros and US dollars. However, 100% of the proceeds received in US dollars have been hedged into euros. The refinancing of the SFA was accompanied by a €800m subordinated loan injection into TSE from Tata Steel Global Holdings ('TSGH').

On 31 May 2018, TSE received an additional loan of €635m from TSGH. The proceeds from this loan were used to make a partial prepayment on the SFA. The loan from TSGH to TSE is a short term loan and interest is charged at Euribor +3.58% which is the same as the applicable rate on the SFA.

Acquisitions and Disposals

On 30 June 2018 TSL and tk signed definitive agreements to create a new 50:50 JV company called thyssenkrupp Tata Steel ('tkTS'). On 10 May 2019 TSL and tk announced that activities to complete the JV had been suspended, as it was anticipated that the JV would not receive merger control approval from the European Commission ('EC').

On 8 May 2018 TSE announced its intention to divest its Cogent, Kalzip, Firsteel, Engineering Steels Service Centre (Wolverhampton), and Tata Steel Istanbul Metals (Colors) businesses. The disposal of the Kalzip business to Donges SteelTec GmbH completed on 1 October 2018 and on 4 June 2019 TSE signed a business purchase agreement to divest the Firsteel business. Discussions to divest the other businesses remain ongoing.

Cash flow

Net cash flow from operating activities in 2018/19 was an inflow of £344m (2017/18: outflow of £461m) but included a net cash inflow of £44m (2017/18: £73m outflow) from working capital financing arrangements with Proco. The previous year included as part of the RAA a one-off payment of £550m to the BSPS.

The working capital/turnover ratio (excluding the impact of arrangements with TSL Group companies) remained the same at 16.0% at 31 March 2019 (31 March 2018: 16.0%).

Net cash flow used in investing activities was an outflow of £346m (2017/18: £372m) due mainly to property, plant and equipment capital expenditure of £386m (2017/18: £384m). After a net cash inflow of £35m from financing activities (2017/18: inflow of £685m) arising from increased funds from borrowings, this gave a net increase in cash and cash equivalents of £33m (2017/18: decrease of £148m).

Capital expenditure

Capital expenditure on property, plant and equipment in 2018/19 at £386m (2017/18: £384m) included spend on a number of major capital projects in both the Netherlands and the UK. In the Netherlands, these included in the Strip Products Mainland Europe business, significant capital expenditure on the Strategic Asset Roadmap Programme (STAR) to support the strategic growth of differentiated, high value products in the automotive, lifting and excavating, and energy and power market sectors. Key STAR activities during 2018/19 included further progress towards the installation of a new caster to allow enhanced casting capabilities for advanced products and the commissioning of a heavy duty coiler at the hot strip mill. In the Packaging business the introduction of Protact®, a multi-layered polymer system that meets increasingly stringent food requirements was progressed.

The main projects within the UK in 2018/19 included within the Strip Products UK business life-extension works on Blast Furnace 5 in order to secure the long term production capacity of the Port Talbot works, the installation of an automotive finishing line which is key to the strategic development of the UK's automotive full finish capability and the ongoing essential replacement of the Basic Oxygen Steelmaking (BOS) converter vessel replacement.

Balance sheet

TSE's consolidated net liabilities at 31 March 2019 were £2,575m (31 March 2018: net liabilities of £2,348m). The deterioration of £227m was due to the loss after taxation of £191m and other comprehensive losses of £36m (2017/18: £203m) caused mainly by actuarial losses of £77m (2017/18: £202m) on defined benefit pension and other post-retirement plans (see page 25), offset by gains of £19m (2017/18: £13m losses) on cash flow hedges and foreign exchange rate gains of £16m (2017/18: £27m losses).

Net debt at 31 March 2019 amounted to £7,180m (31 March 2018: £6,971m). Of the gross debt, approximately 73% (31 March 2018: 65%) related to borrowings from within the TSL Group which includes £5,021m (31 March 2018: £4,060m) of subordinated debt. Cash and short term deposits at 31 March 2019 amounted to £130m (31 March 2018: £99m). Further details on borrowings can be found in Note 19.

Financial risk management

TSE's financial risk management is based upon sound economic objectives and good corporate practice. The Group's main financial risks are related to the availability of funds to meet its business needs, and movements in interest rates, exchange rates and commodity costs. Derivative and other financial instruments are used to manage any exposures where considered appropriate. Further details of its financial risks, and the way the Group mitigates them, are set out in Note 24.

A6. Approval of Strategic Report

Section A of this Annual Report comprises a strategic report for the Group which has been prepared in accordance with, and in reliance upon, applicable English and Welsh company law, in particular Chapter 4A of the Companies Act 2006, and the liabilities of the directors in connection with this report shall be subject to the limitations and restrictions provided by the law. It should be noted that the strategic report has been prepared for the Group as a whole, and therefore gives greater emphasis to those matters which are significant to the Company and its subsidiaries when viewed as a whole.

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

N K Misra
Executive Director
6 June 2019

The Board

The directors of the Company who served throughout the period from 1 April 2018 to the date of this report (unless otherwise stated) were as follows:

A M Robb (Non-Executive Chairman)
J L M Fischer (Chief Executive Officer)
P M M Blauwhoff (Director of TSL)
K Chatterjee (Director of TSL)
B Jha (Executive Director – resigned 6 February 2019)
N K Misra (Executive Director)
T V Narendran (Director of TSL)

There are established Board committees for audit, remuneration and pension matters, and regular meetings are held during the year. Health, safety and environment matters are considered by the SHE committee established for the TSL Group.

Directors' indemnity

The Company's articles of association provide, subject to the provisions of UK legislation, that the Company may indemnify any director or former director of the Company in respect of any losses or liabilities he or she may incur in connection with any proven or alleged negligence, default, breach of duty or breach of trust in relation to the Group (including by funding any expenditure incurred or to be incurred by him or her). In addition, directors and officers of the Company and its subsidiaries are covered by Directors & Officers liability insurance.

Dividends

The directors do not recommend that a dividend be paid, and no dividends were paid or proposed during the year (2017/18: nil).

Political donations

The Company does not make any donations to political parties and none were made during the year.

Statement as to disclosure of information to the Company's auditors

Each director in office at the date of this Directors' report confirms that:

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

This confirmation is given and should be interpreted in accordance with the provisions of section 418 of the Companies Act 2006.

Independent Auditors

PricewaterhouseCoopers LLP have indicated their willingness to be reappointed as auditor to the Company for another term and appropriate arrangements are being made for them to be deemed reappointed as auditors in the absence of an AGM. Price Waterhouse & Co Chartered Accountants LLP in India is the auditors of the ultimate parent company, TSL.

Company's financial position

The Directors note that the Company balance sheet as at 31 March 2019 was in a net liability position of £1,630m. This is predominantly the result of non-cash impairments charges made against the carrying value of the Company's investments in subsidiary undertakings which total £2,547m at 31 March 2019. The Company's net liabilities include £4,320m of sub-ordinated loans from its immediate parent company on which cash interest is not paid and is therefore similar in nature to equity. The Directors intend to request the immediate parent company to convert some of this non performing debt into equity in the near future in order to restore a net asset position.

Going concern

The directors have assessed the future funding requirements of the Group and the Company, in the expected event that the previously proposed joint venture with thyssenkrupp is not completed, and have compared these funding requirements to the level of borrowing facilities which are assumed to be available, including working capital facilities. The directors have assessed future financial performance against the borrowing facilities as set out in Note 19 to the financial statements and acknowledge that there are facility repayments due in October 2019 of €370m and in July 2020 of €38.8m and $9.8m.

As part of these assessments, the directors considered a number of scenarios including the impact of lower steel margins than had been assumed in the Group's Annual Plan, which may be caused by the introduction of trade barriers and tariffs, UK economic growth being impacted by a no-deal Brexit, the possible impact of Chinese government action on supply and demand for steel, or by an increase in raw material costs, or a combination of any of these factors, and the mitigating actions the Group could take to limit any adverse consequences.

The directors have taken into account that the Company will benefit from an on-going commitment from its ultimate parent, Tata Steel Limited, provided in part by way of direct commitment and in part through a comfort letter provided in traditional form by its affiliate company, Tata Steel Global Holdings. The directors have made some assumptions as to the continued availability of debt financing, including that a further refinancing will be achieved of the Group's existing debt funding facilities, as has been achieved successfully in 2010 and 2014. The directors have assured themselves sufficiently of and taken into account that the Company has historically benefitted from and would continue to benefit from support from its parent and the parent's subsidiaries, including if so required, an injection of funds in an amount which is materially more than the scheduled debt service obligations of the Group over the projected period. The directors have also satisfied themselves that the ultimate parent has, or will have access to, sufficient funds in relation to the above.

Having undertaken this work, the directors are of the opinion that the Group has access to adequate resources to fund its operations for the foreseeable future, and so determine that it is appropriate for the financial statements to be prepared on a going concern basis.

Information provided in the Strategic report

In accordance with section 414C of the Companies Act 2006 the directors have chosen to disclose the following information in the Group's strategic report:

- Principal risks and uncertainties (see page 3);
- Business review (see page 9);
- Factors likely to affect the Group's future development, performance and position (see page 9);
- Policies on employment of disabled persons, employee involvement, communication, consultation, recruitment and training (see page 10);
- Research & development activities (see page 12 and 13);
- Particulars of any events affecting the Company (or any of its subsidiary undertakings) which have occurred since the end of the financial year (see page 14); and
- An indication of exposure to price, credit, liquidity and cash flow risk (see page 16).

Corporate Governance

During the year the Group commenced its preparations to address the new UK corporate governance reporting requirements. Appropriate disclosures will be included in the 2019/20 Directors' or Strategic Report of relevant entities.

By order of the Board
N K Misra
Executive Director
6 June 2019

C. Directors Responsibilities Statement

The directors are responsible for preparing the Annual Report and the financial statements in accordance with applicable law and regulation.

Company law requires the directors to prepare financial statements for each financial year. Under that law the directors have prepared the group financial statements in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union and company financial statements in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards, comprising FRS 101 "Reduced Disclosure Framework", and applicable law). 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 group and company and of the profit or loss of the group and company for that period. In preparing the financial statements, the directors are required to:

- select suitable accounting policies and then apply them consistently;
- state whether applicable IFRSs as adopted by the European Union have been followed for the group financial statements and United Kingdom Accounting Standards, comprising FRS 101, have been followed for the company financial statements, subject to any material departures disclosed and explained in the financial statements;
- make judgements and accounting estimates that are reasonable and prudent; and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the group and company will continue in business.

The directors are responsible for keeping adequate accounting records that are sufficient to show and explain the group and company's transactions and disclose with reasonable accuracy at any time the financial position of the group and company and enable them to ensure that the financial statements comply with the Companies Act 2006 and, as regards the group financial statements, Article 4 of the IAS Regulation.

The directors are also responsible for safeguarding the assets of the group and company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The directors of the ultimate parent company are responsible for the maintenance and integrity of the of the ultimate parent company's website. Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

By order of the Board
N K Misra
Executive Director
6 June 2019

Report on the audit of the financial statements

Opinion

In our opinion:

- Tata Steel Europe Limited's group financial statements and parent company financial statements (the "financial statements") give a true and fair view of the state of the group's and of the parent company's affairs as at 31 March 2019 and of the group's loss and cash flows for the year then ended;
- the group financial statements have been properly prepared in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union;
- the parent company financial statements have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards, comprising FRS 101 "Reduced Disclosure Framework", and applicable law); and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006.

We have audited the financial statements, included within the Report & Accounts (the "Annual Report"), which comprise: the Consolidated and Parent Company balance sheets as at 31 March 2019; the Consolidated income statement, the Consolidated statement of comprehensive income, the Consolidated statement of cash flows, and the Consolidated and Parent Company statements of changes in equity for the year then ended; the presentation of the accounts and accounting policies; and the notes to the financial statements, which include a description of the significant accounting policies.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) ("ISAs (UK)") and applicable law. Our responsibilities under ISAs (UK) are further described in the Auditors' responsibilities for the audit of the financial statements section of our report. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We remained independent of the group in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, which includes the FRC's Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

Conclusions relating to going concern

ISAs (UK) require us to report to you when:

- 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 group's and parent 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.

We have nothing to report in respect of the above matters.

However, because not all future events or conditions can be predicted, this statement is not a guarantee as to the group's and parent company's ability to continue as a going concern. For example, the terms on which the United Kingdom may withdraw from the European Union are not clear, and it is difficult to evaluate all of the potential implications on the group's trade, customers, suppliers and the wider economy.

Reporting on other information

The other information comprises all of the information in the Annual Report other than the financial statements and our auditors' report thereon. The directors are responsible for the other information. Our opinion on the financial statements does not cover the other information and, accordingly, we do not express an audit opinion or, except to the extent otherwise explicitly stated in this report, any form of assurance 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 an apparent material inconsistency or material misstatement, we are required to perform procedures to conclude whether there is a material misstatement of 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 this other information, we are required to report that fact. We have nothing to report based on these responsibilities.

With respect to the Strategic Report and Directors' Report, we also considered whether the disclosures required by the UK Companies Act 2006 have been included.

Based on the responsibilities described above and our work undertaken in the course of the audit, ISAs (UK) require us also to report certain opinions and matters as described below.

Strategic Report and Directors' Report

In our opinion, based on the work undertaken in the course of the audit, the information given in the Strategic Report and Directors' Report for the year ended 31 March 2019 is consistent with the financial statements and has been prepared in accordance with applicable legal requirements.

In light of the knowledge and understanding of the group and parent company and their environment obtained in the course of the audit, we did not identify any material misstatements in the Strategic Report and Directors' Report.

Responsibilities for the financial statements and the audit

Responsibilities of the directors for the financial statements

As explained more fully in the Directors' Responsibilities Statement set out on page 20, the directors are responsible for the preparation of the financial statements in accordance with the applicable framework and for being satisfied that they give a true and fair view. The directors are also responsible for such internal control as they 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 group's and the parent 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 group or the parent company or to cease operations, or have no realistic alternative but to do so.

Auditors' 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 auditors' 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 FRC's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditors' report.

Use of this report

This report, including the opinions, has been prepared for and only for the parent company's members as a body in accordance with Chapter 3 of Part 16 of the Companies Act 2006 and for no other purpose. We do not, in giving these opinions, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

Other required reporting

Companies Act 2006 exception reporting

Under the Companies Act 2006 we are required to report to you if, in our opinion:

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

We have no exceptions to report arising from this responsibility.

K E Finn

Katharine Finn (Senior Statutory Auditor)
for and on behalf of PricewaterhouseCoopers LLP
Chartered Accountants and Statutory Auditors
Cardiff
6 June 2019

E1. Consolidated income statement

For the financial year ended 31 March

	Note	2019 Before exceptional items £m	2019 Exceptional items (Note 2) £m	2019 Total after exceptional items £m	2018 Before exceptional items £m	2018 Exceptional items (Note 2) £m	2018 Total after exceptional items £m
Revenue	1	**7,070**	-	**7,070**	6,988	-	6,988
Operating costs	2	**(6,718)**	(9)	**(6,727)**	(6,779)	1,614	(5,165)
Operating profit/(loss)		**352**	(9)	**343**	209	1,614	1,823
Finance costs	5	**(505)**	-	**(505)**	(456)	-	(456)
Finance income	5	**5**	-	**5**	6	-	6
Share of post-tax results of joint ventures and associates	11 (iv)	**2**	-	**2**	9	-	9
(Loss)/profit before taxation		**(146)**	(9)	**(155)**	(232)	1,614	1,382
Taxation charge	6	**(36)**	-	**(36)**	(42)	-	(42)
(Loss)/profit after taxation from continuing operations		**(182)**	(9)	**(191)**	(274)	1,614	1,340
Profit after taxation from discontinued operations	7	-	-	-	7	-	7
(Loss)/profit after taxation		**(182)**	(9)	**(191)**	(267)	1,614	1,347
Attributable to:							
Owners of the Company				**(63)**			842
Non-controlling interests	27			**(128)**			505

All references to 2019 in the Financial Statements, the Presentation of accounts and accounting policies and the related Notes 1 to 38 refer to the financial period ended 31 March 2019 or as at 31 March 2019 as appropriate (2018: the financial period ended 31 March 2018 or as at 31 March 2018).

Notes and related statements forming part of these accounts appear on pages 37 to 80.

E2. Consolidated statement of comprehensive income

For the financial year ended 31 March

	Note	2019 £m	2018 £m
(Loss)/profit after taxation		**(191)**	1,347
Items that will not be reclassified subsequently to the income statement:			
Actuarial losses on defined benefit pension and other post-retirement plans	21	**(77)**	(202)
Income tax relating to items that will not be reclassified	6	**11**	35
Items that may be reclassified subsequently to the income statement:			
Gains/(losses) arising on cash flow hedges	24	**19**	(13)
Income tax relating to items that may be reclassified	6	**(5)**	4
Foreign exchange on currency net investments		**16**	(27)
Other comprehensive loss for the year net of tax		**(36)**	(203)
Total comprehensive (loss)/profit for the year		**(227)**	1,144
Attributable to:			
Owners of the Company		**(82)**	422
Non-controlling interests	27	**(145)**	722

The Company has taken advantage of the exemption under section 408 of the Companies Act 2006 allowing it not to present its own statement of comprehensive income.

Notes and related statements forming part of these accounts appear on pages 37 to 80.

E3. Consolidated and Parent Company balance sheets

As at 31 March		Group		Company	
		2019	2018	**2019**	2018
	Note	**£m**	£m	**£m**	£m
Non-current assets					
Goodwill	8	**405**	405	**-**	-
Other intangible assets	9	**104**	102	**-**	131
Property, plant and equipment	10	**2,397**	2,242	**-**	-
Equity accounted investments	11	**36**	40	**-**	-
Investments in subsidiary and fellow group undertakings	11	**-**	-	**2,547**	1,493
Other investments	12	**24**	33	**-**	-
Long term receivables	13	**28**	37	**-**	-
Retirement benefit assets	21	**2,205**	2,229	**-**	-
Deferred tax assets	14	**73**	98	**8**	8
Other tax assets		**2**	-	**-**	-
		5,274	5,186	**2,555**	1,632
Current assets					
Inventories	15	**1,515**	1,492	**-**	-
Trade and other receivables	16	**747**	818	**296**	203
Current tax assets	17	**5**	7	**-**	-
Cash and short-term deposits	18	**130**	99	**3**	1
		2,397	2,416	**299**	204
TOTAL ASSETS		**7,671**	7,602	**2,854**	1,836
Current liabilities					
Inter-group borrowings	19	**(660)**	(279)	**(660)**	(279)
External borrowings	19	**(940)**	(637)	**-**	-
Trade and other payables	20	**(2,520)**	(2,423)	**(116)**	(145)
Current tax liabilities	17	**(11)**	(15)	**-**	-
Retirement benefit obligations	21	**(6)**	(3)	**-**	-
Short-term provisions and other liabilities	22	**(47)**	(51)	**(1)**	-
		(4,184)	(3,408)	**(777)**	(424)
Non-current liabilities					
Inter-group borrowings	19	**(4,652)**	(4,235)	**(3,707)**	(3,334)
External borrowings	19	**(1,060)**	(1,919)	**-**	-
Deferred tax liabilities	14	**(1)**	(2)	**-**	-
Retirement benefit obligations	21	**(119)**	(123)	**-**	-
Provisions and other liabilities	22	**(214)**	(239)	**-**	-
Other non-current liabilities	23	**(9)**	(14)	**-**	-
Deferred income	25	**(7)**	(10)	**-**	-
		(6,062)	(6,542)	**(3,707)**	(3,334)
TOTAL LIABILITIES		**(10,246)**	(9,950)	**(4,484)**	(3,758)
NET LIABILITIES		**(2,575)**	(2,348)	**(1,630)**	(1,922)
Equity					
Called up share capital	26	**4,139**	4,139	**4,139**	4,139
Accumulated deficit		**(6,999)**	(6,713)	**(5,769)**	(6,061)
Other components of equity		**285**	256	**-**	-
Equity attributable to owners of the Company		**(2,575)**	(2,318)	**(1,630)**	(1,922)
Non-controlling interests	27	**-**	(30)	**-**	-
TOTAL EQUITY		**(2,575)**	(2,348)	**(1,630)**	(1,922)

The Company recorded a profit of £292m (2018: profit of £51m) and has taken advantage of the exemption under section 408 of the Companies Act 2006 allowing it not to present its own income statement. For further information on the Company's net liability position, please refer to page 19.

Approved and authorised for issue by the Board and signed on its behalf by:

N K Misra
Executive Director, Finance
6 June 2019
Tata Steel Europe Limited
Registered No: 05957565

E4. Consolidated and Parent Company statements of changes in equity

Group:

	Share capital £m	Accumulated deficit £m	Hedging reserve £m	Translation reserves £m	Investment revaluation reserves £m	Total £m	Non-controlling interests £m	Total equity £m
Balance as at 1 April 2017	**4,139**	**(7,926)**	**9**	**288**	**(2)**	**(3,492)**	**-**	**(3,492)**
Profit for the year	-	842	-	-	-	**842**	505	**1,347**
Other comprehensive (loss)/income for the year	-	(381)	(12)	(27)	-	**(420)**	217	**(203)**
Total comprehensive income for the year	-	461	(12)	(27)	-	**422**	722	**1,144**
Adjustment arising from the issue of a non-controlling interest in TSUK to the BSPS	-	752	-	-	-	**752**	(752)	**-**
Balance as at 31 March 2018	**4,139**	**(6,713)**	**(3)**	**261**	**(2)**	**(2,318)**	**(30)**	**(2,348)**
Loss for the year	-	(63)	-	-	-	**(63)**	(128)	**(191)**
Other comprehensive loss for the year	-	(48)	13	16	-	**(19)**	(17)	**(36)**
Total comprehensive loss for the year	-	(111)	13	16	-	**(82)**	(145)	**(227)**
Other transactions with non-controlling interests	-	(11)	-	-	-	**(11)**	11	**-**
Dilution of non-controlling interests (Note 27)	-	(164)	-	-	-	**(164)**	164	**-**
Balance as at 31 March 2019	**4,139**	**(6,999)**	**10**	**277**	**(2)**	**(2,575)**	**-**	**(2,575)**

Company:

	Share capital £m	Accumulated deficit £m	Total equity £m
Balance as at 1 April 2017	**4,139**	**(6,112)**	**(1,973)**
Profit for the year	-	51	51
Balance as at 31 March 2018	**4,139**	**(6,061)**	**(1,922)**
Profit for the year	-	292	292
Balance as at 31 March 2019	**4,139**	**(5,769)**	**(1,630)**

Notes and related statements forming part of these accounts appear on pages 37 to 80.

E5. Consolidated statement of cash flows

For the financial year ended 31 March	Note	2019 £m	2018 £m
Operating activities			
Cash generated from operations	31	**587**	328
Interest paid		**(229)**	(231)
Interest element of finance lease rental payments		**(3)**	(4)
BSPS RAA Payment	21	**-**	(550)
UK corporation tax		**(2)**	(2)
Overseas taxation		**(9)**	(2)
Net cash flow generated from/(used in) operating activities		**344**	(461)
Investing activities			
Purchase of property, plant and equipment		**(386)**	(384)
Sale of property, plant and equipment		**37**	5
Purchase of other intangible assets		**(28)**	(22)
Purchase of other fixed asset investments		**(1)**	-
Sale of other fixed asset investments		**10**	20
Deferred proceeds on prior sale of subsidiary		**10**	-
Sale of businesses and subsidiary undertakings	34	**(2)**	(3)
Sale of investments in joint ventures	11	**3**	-
Dividends from joint ventures and associates	11	**8**	3
Dividends received from investments		**1**	1
Interest received		**1**	5
Cash placed on deposit		**1**	3
Net cash flow used in investing activities		**(346)**	(372)
Financing activities			
New loans (including drawdowns of revolving credit facility)		**1,381**	1,089
Repayment of borrowings (including repayments of revolving credit facility)		**(1,336)**	(397)
Capital element of finance lease rental payments		**(10)**	(12)
Proceeds from sale and leaseback		**-**	5
Net cash flow generated from financing activities		**35**	685
Increase/(decrease) in cash and cash equivalents	33	**33**	(148)
Cash and cash equivalents at beginning of period	33	**92**	237
Effect of foreign exchange rate changes	33	**(1)**	3
Cash and cash equivalents at end of period	**33**	**124**	92
Cash and cash equivalents consist of:			
Cash and short-term deposits	18	**130**	99
Bank overdrafts	19	**(6)**	(7)
		124	92

The consolidated statement of cash flows is presented on a total operations basis, which includes continuing and discontinued operations. For cash flows relating to discontinued operations, refer to note 7 (iii).

Notes and related statements forming part of these accounts appear on pages 37 to 80.

I Basis of preparation

TSE is a private limited company incorporated in the United Kingdom under the Companies Act 2006. The consolidated financial statements of the Group for the year ended 31 March 2019 comprise the Company and its subsidiaries and the Group's interest in its joint ventures and associated undertakings.

The functional and presentational currency of the Company and the presentational currency of the Group is sterling. The Group has prepared its Report & Accounts in accordance with International Financial Reporting Standards ('IFRS') as adopted by the EU, interpretations issued by the International Financial Reporting Interpretations Committee ('IFRIC') and in accordance with the provisions of the Companies Act 2006 applicable to companies reporting under IFRS. IFRS as adopted by the EU differs in certain respects from IFRS as issued by the International Accounting Standards Board ('IASB').

TSE meets the definition of a qualifying entity under FRS 100 *'Application of Financial Reporting Requirements'* issued by the Financial Reporting Council. As such the Company's financial statements have been prepared in accordance with FRS 101 *'Reduced Disclosure Framework'* ('FRS 101').

As permitted by FRS 101, the Company has taken advantage of the disclosure exemptions available under that Standard in relation to financial instruments, presentation of comparative information in respect of certain assets, presentation of a cash-flow statement, standards not yet effective, impairment of assets and related party transactions. Where relevant, equivalent disclosures have been included as part of the Group's consolidated financial statements.

The financial statements for the Company and Group have been prepared under the historical cost convention, with the exception of the Group's financial statements which have been modified by the revaluation of financial assets at Fair Value through Other Comprehensive Income (FVOCI) and financial assets at Fair Value Through Profit and Loss (FVTPL).

As set out in the Directors Report on pages 18-19, the Board of Directors have assessed the ability of the Group to continue as a going concern and these financial statements have been prepared on a going concern basis.

All accounting policies used in the preparation of the financial statements remained consistent with those applied in the preparation of the Annual Report in 2018 except for the application of new International Financial Reporting Standards (IFRS) 9 and 15 which have been applied as a difference in accounting policy in the current year.

II New Standards and interpretations applied

The following new International Accounting Standards ('IAS') and new IFRSs have been adopted in the current year:

		Effective Date*
IFRS 9	Financial Instruments	1 Jan 2018
IFRS 15	Revenue from Contracts with Customers	1 Jan 2018
IFRS 2 (Amendments)	Classification and Measurement of Share-based Payment Transactions	1 Jan 2018
IAS 40 (Amendments)	Transfers of Investment Property	1 Jan 2018
IFRIC 22	Foreign currency Transactions and Advance Consideration	1 Jan 2018
IAS 28 (Amendments)	Investments in Associates and Joint Ventures	1 Jan 2019

** periods commencing on or after*

The Amendments to the above Standards did not have a material impact on the TSE financial statements.

IFRS 9 replaces the provisions of IAS 39 that relate to the recognition, classification and measurement of financial assets and financial liabilities, derecognition of financial instruments, impairment of financial assets and hedge accounting. In the current year, the Group has applied IFRS 9 Financial Instruments (as revised in July 2014) and the related consequential amendments to other IFRS Standards that are effective for an annual period that begins on or after 1 January 2018. The transition provisions of IFRS 9 allow an entity not to restate comparatives. The Group has not restated comparatives.

IFRS 9 introduced new requirements for:

1) The classification and measurement of financial assets and financial liabilities,
2) Impairment of financial assets, and
3) General hedge accounting

Applying the new requirements has not had a material impact on the Group's consolidated financial statements.

The application of IFRS 9 has had no impact on the consolidated cash flows of the Group.

Applying the revised Expected Credit Losses (ECL) methodology did not result in any material change to the loss allowance recorded under IAS 39 since the Group's exposure to credit losses is limited through insurance (see note 16).

Except for the changes to impairment methodology as noted above, the remainder of the differences as a result of adoption of IFRS 9 are limited to immaterial presentational and disclosure changes. Refer to note VI for the revised accounting policy applied across the group.

IFRS 15 "*Revenue from Contracts with Customers*" was issued on 28 May, 2014 and provides a unified five step model for determining the timing, measurement and recognition of revenue. The focus of the new standard is to recognise revenue as performance obligations are met rather

than based on the transfer of risks and rewards. IFRS 15 includes a comprehensive set of disclosure requirements including qualitative and quantitative information about contracts with customers to understand the nature, amount, timing and uncertainty of revenue. The standard supersedes IAS 18 "*Revenue*", IAS 11 "*Construction Contracts*" and a number of revenue-related interpretations. On 12 April, 2016, the IASB issued amendments to IFRS 15 which clarify how to identify a performance obligation and determine whether a company is a principal or an agent.
The Group's revenue is predominantly derived from the single performance obligation to transfer steel products under arrangements in which the transfer of risks and rewards of ownership and the fulfilment of the Group's performance obligation occur at the same time. As part of the adoption process, the Group assessed its performance obligations underlying the revenue recognition and assessed variable considerations including rebates, methods for estimating warranties, customised products and principal versus agent considerations. The adoption of this standard did not have a material impact on the consolidated financial statements of the Group.

The additional required disclosures are presented in note 1.

III New Standards and interpretations not applied

The International Accounting Standards Board ('IASB') has issued the following Standards, which are relevant to the Group's reporting but have either not been applied as they have not been adopted for use in the EU in the year ended 31 March 2019, or have an effective date after the date of these financial statements:

		Effective Date*
IFRS 16	Leases	1 Jan 2019
IFRS 17	Insurance Contracts	1 Jan 2021
IFRS 9 (Amendments)	Prepayment Features with Negative Compensation	1 Jan 2019
IAS 28 (Amendments)	Long-term Interests in Associates and Joint Ventures	1 Jan 2019
IAS 19 (Amendments)	Plan Amendment, Curtailment or Settlement	1 Jan 2019
IFRIC 23 (Revised Interpretation)	Uncertainty over Income Tax Treatments	1 Jan 2019
IFRS 3, IFRS 11, IAS 12 & IAS 23 (Amendments)	2015-2017 Annual Improvements cycle	1 Jan 2019

** periods commencing on or after*

IFRS 16 Leases

IFRS 16, which was endorsed by the EU on 9 November 2017, provides a comprehensive model for the identification of lease arrangements and their treatment in the financial statements for both lessors and lessees. IFRS 16 will supersede the current lease guidance IAS 17 '*Leases*' and IFRIC 4 '*Determining Whether an Arrangement Contains a Lease*' when it becomes effective for accounting periods beginning on or after 1 January 2019. The date of initial application of IFRS 16 for the Group will be 1 April 2019.

In preparation for the first-time application of IFRS 16, the Group has recently concluded an implementation project which it initiated in 2017. The project has concluded that IFRS 16 will not change significantly the scope of contracts that meet the definition of a lease for the Group.

The Group has chosen to apply this standard retrospectively by applying the modified-retrospective approach with asset amounts set equal to the lease liability on transition on 1 April 2019. The comparative year's lease liabilities will not be restated.
In contrast to lessee accounting, IFRS 16 substantially carries forward the lessor accounting requirements in IAS 17.
Transition approach and exemptions
The Group has chosen the following:

- Not to make use of the 'grandfather' practical expedient available on transition to IFRS 16, which requires the Group to reassess whether a contract is or contains a lease;
- Not to make use of the practical expedient in IFRS 16 to account for each lease component within the contract as a lease separately from non-lease components; and
- Make use of the practical expedient available to place reliance upon the assessment for onerous leases and transferring the provision currently recognised to impairment of right-of-use assets;

On application of IFRS 16 on 1 April 2019, the Group will apply the following exemptions;

- Exclude short term leases (lease term of 12 months or less); and
- Exclude low-value assets (such as personal computers and office equipment).

Impact on Lessee Accounting
As at 31 March 2019, the Group has non-cancellable operating lease commitments on an undiscounted basis of c.£271m.

Impact on Lessor Accounting
IFRS 16 requires an intermediate lessor to account for the head lease and the sublease as two separate contracts. The intermediate lessor is required to classify the sublease as a finance or operating lease by reference to the right-of-use asset arising from the head lease (and not by reference to the underlying asset as was the case under IAS 17). Consequently, the Group will reclassify some of its sublease agreements as finance leases following the adoption of IFRS 16 on 1 April 2019.

Estimated financial impact
TSE has estimated that the adoption of IFRS 16 is likely to include the following impact on its financial statements:

- *Consolidated balance sheet* - recognise on 1 April 2019 right-of-use assets of c.£138m - £152m (after deducting impairments of c.£8m against some of the assets), sublease investments of c.£30m - £33m and lease liabilities of £176m to £193m. In addition, provisions of £8m for onerous lease contracts previously recognised at 31 March 2019 under IAS 17 and IAS 37 will be de-recognised on 1 April 2019.

- *FY20 consolidated income statement* – decrease the result before tax by c.£3m - £4m. This comprises a decrease of £63m - £69m to operating costs, an increase of £58m - £63m to depreciation and an increase of £9m - £10m to the interest expense
- *FY20 consolidated cash flow statement* – The net impact on the presentation of the cash flow statement from adoption of IFRS 16 is expected to be £nil.

Impact of other standards and interpretations not applied

Management have performed a review of the expected impact from other standards and interpretations not applied as shown above. Apart from the impacts noted for IFRS 16, management do not expect a material impact as a result of other new standards and interpretations not applied.

IV Use of estimates and critical accounting judgements

In the application of the Group's accounting policies, which are described in section V, the directors are required to make judgements (other than those involving estimations) that have a significant impact on the amounts recognised and to make estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period, or in the period of revision and future periods if the revision affects both current and future periods.

Critical judgements in applying the Group's accounting policies

The critical judgements, apart from those involving estimations (which are presented separately below), that the directors have made in the process of applying the Group's accounting policies and that have the most significant effect on the amounts recognised in the financial statements are presented below.

1) Non-current assets held for sale

The recognition of non-current assets (or disposal groups) as 'held for sale' is dependent upon whether its carrying amount will be recovered principally through a sale transaction rather than through continuing use. Significant judgement is required to assess whether the sale of the assets (or disposal group) is highly probable.

2) Presentation of exceptional items

Judgement has been exercised by the Company when interpreting the requirement to present separately exceptional items. Items of income and expense which, because of the nature and expected infrequency of the events giving rise to them, merit separate presentation to allow users of the accounts to better understand the elements of financial performance in the year, so as to facilitate comparison with prior periods and to assess better trends in financial performance. Further information surrounding exceptional items can be found in note 2.

Key sources of estimation uncertainty

The key assumptions concerning the future and other key sources of estimation uncertainty at the reporting period end that may have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year, are discussed below.

1) Recognition of deferred tax assets

The recognition of deferred tax assets is subject to estimations of the future available taxable profits that the directors consider to be more likely than not to occur, based on the Group's annual plans and future forecasts. Further information can be found in note 14.

2) Post-retirement benefits

The Group's retirement benefit obligations are assessed by selecting key assumptions. The selection of inflation, salary growth, and mortality rates are key sources of estimation uncertainty which could lead to a material adjustment in the defined benefit obligations within the next financial year. The Group sets these judgements with close reference to market conditions and third party actuarial advice.

The Group's defined benefit obligations are discounted at a rate set by reference to market yields at the end of the reporting period on high quality corporate bonds. The most significant criteria considered for the selection of bonds include the issue size of the corporate bonds, quality of the bonds and the identification of outliers which are excluded.

The Group's main defined benefit scheme, being BSPS in the UK, is in a net surplus position at the balance sheet date on an IAS 19 basis. The surplus in the BSPS is not immediately realisable. The final amount realised may differ from the amount recognised in the balance sheet. Further details on the Group's retirement benefit obligations, including a sensitivity analysis of key judgements are included within note 21 and note V(e).

The possibility of a "no deal" Brexit has created economic uncertainties for business. The TSE Executive Committee has taken action to mitigate these uncertainties as outlined in page 3. The Group has also prepared for the application of tariffs for goods moving in and out of Europe as disclosed in the Business Review. This planning will allow the Company to take advantage of opportunities that may arise from these changes and mitigate any adverse trading impact on the Group. The Group's view is that this does not represent a material estimation uncertainty.

The detailed accounting policies for each of these areas are outlined in section V below.

V Critical accounting policies

(a) Property, plant and equipment

Property, plant and equipment is recorded at fair value on acquisition less accumulated depreciation and any recognised impairment loss. Cost includes professional fees and, for assets constructed by the Group, any related works to the extent that these are directly attributable to the acquisition or construction of the asset. From 1 April 2009 this includes borrowing costs capitalised in respect of qualifying assets in accordance with the Group's policy. Amounts incurred in connection with capital projects that are not directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended (which the Group refers to as 'commissioning costs' and which include expenses such as initial operating losses incurred while technical deficiencies on new plant are rectified and incremental operating costs that are incurred while the new plant is operating at less than full capacity) are written off to profit and loss as incurred. Assets in the course of construction are depreciated from the date on which they are ready for their intended use.

The gain or loss arising on disposal of an asset is determined as the difference between the sale proceeds and the carrying amount of the asset, and is recognised in profit and loss. Included in property, plant and equipment are loose plant and tools which are stated at cost less amounts written off related to their expected useful lives and estimated scrap value and also spares, against which impairment provisions are made where necessary to cover slow moving and obsolete items.

Subsequent costs are included in the carrying value of an asset when it is probable that additional future economic benefits will flow to the Group and the cost of the item can be measured reliably. All other repairs and renewals are charged to profit and loss as incurred.

(b) Depreciation, amortisation and impairment of property, plant and equipment and other intangible assets (including goodwill)

Depreciation or amortisation is provided so as to write off, on a straight-line basis, the cost of property, plant and equipment and other intangible assets, including those held under finance leases, to their residual value. These charges are commenced from the dates the assets are available for their intended use and are spread over their estimated useful economic lives or, in the case of leased assets, over the lease period if shorter. The estimated useful lives of assets and residual values are reviewed regularly and, when necessary, revised. Accelerated depreciation or amortisation is provided where an asset is expected to become obsolete before the end of its normal useful life or if events or changes in circumstances indicate that an impairment loss needs to be recognised, as discussed below. No further charges are provided in respect of assets that are fully written down but are still in use.

The estimated useful lives for the main categories of property, plant and equipment and other intangible assets are:

		Life Years
Freehold and long leasehold buildings that house plant and other works buildings		25
Other freehold and long leasehold buildings		50
Plant and machinery:		
Iron and steelmaking	(maximum)	25
IT hardware and software	(maximum)	8
Office equipment and furniture		10
Motor vehicles		4
Other	(maximum)	15
Patents and trademarks		4
Product and process development costs		5

At each reporting period end, the Group reviews the carrying amounts of its property, plant and equipment and other intangible assets (including goodwill) to determine whether there is any indication that the carrying amount of those assets may not be recoverable through continuing use. If any such indication exists, the recoverable amount of the asset is reviewed in order to determine the extent of the impairment loss (if any). Where the asset does not generate cash flows that are independent from other assets, the Group estimates the recoverable amount of the CGU to which the asset belongs. Other intangible assets with indefinite useful lives are tested for impairment annually and whenever there is an indication that the asset may be impaired.

Recoverable amount is the higher of fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate, based upon the Group's long-term weighted average cost of capital ('WACC'), which also recognises the comparative WACCs of its European peers, with appropriate adjustments for the risks associated with the relevant units. If the recoverable amount of an asset (or CGU) is estimated to be less than its carrying amount, the carrying amount of the asset (or CGU) is reduced to its recoverable amount. An impairment loss is recognised as an expense immediately.

Where an impairment loss subsequently reverses, the carrying amount of the asset (or CGU) 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 (or CGU) in prior years. A reversal of an impairment loss is recognised as income immediately, although impairments of goodwill are not subject to subsequent reversal.

(c) Non-current assets and disposal groups held for sale and discontinued operations

Non-current assets and disposal groups classified as held for sale are measured at the lower of their carrying amount and fair value less costs to sell. Assets and disposal groups are classified as held for sale if their carrying amount will be recovered through a sale transaction rather than through continuing use. This condition is only met when the sale is highly probable and the asset, or disposal group, is available for immediate sale in its present condition and is marketed for sale at a price that is reasonable in relation to its current fair value. The Group must also be committed to the sale, which should be expected to qualify for recognition as a completed sale within one year from the date of classification.

Non-current assets classified as held for sale and the assets of a disposal group classified as held for sale are presented separately from the other assets in the balance sheet. The liabilities of a disposal group classified as held for sale are presented separately from other liabilities in the balance sheet.

Non-current assets (including those that are part of a disposal group) are not depreciated or amortised while they are classified as held for sale. An impairment loss is recognised for any initial or subsequent write-down of a disposal group to fair value less costs to sell.

Where a disposal group represents a separate major line of business or geographical area of operation, or is part of a single coordinated plan to dispose of a separate major line of business or geographical area of operation, then it is treated as a discontinued operation. The post-tax profit or loss of this discontinued operation together with the gain or loss recognised on its disposal are disclosed as a single amount on the face of the income statement, with all prior periods being presented on this basis.

Where intercompany transactions have occurred between continuing and discontinued operations, these have been eliminated against discontinued operations except for interest costs on intercompany financing arrangements that will not continue after disposal which have been eliminated against continuing operations.

(d) Taxation

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

The tax currently payable is based on taxable profit for the year. Taxable profit differs from net profit as reported in the income statement because it excludes items of income or expense that are taxable or deductible in other years and it further excludes items that are never taxable or deductible.

Deferred tax is the tax expected to be payable or recoverable on differences between the carrying amounts 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. In contrast, deferred tax assets are only recognised to the extent that it is probable that future taxable profits will be available against which the temporary differences can be utilised. Liabilities are not recognised for taxable temporary differences arising on investments in subsidiaries, joint ventures and associates where the Group is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future.

Both current and deferred tax items are calculated using the tax rates that are expected to apply in the period when the liability is settled or the asset is realised. This means using tax rates that have been enacted or substantially enacted by the end of the reporting period. Deferred tax is charged or credited in 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.

Deferred tax assets and liabilities are offset to the extent that they relate to taxes levied by the same tax authority and they are in the same taxable entity, or a group of taxable entities where the tax losses of one entity are used to offset the taxable profits of another and there are legally enforceable rights to set off current tax assets and current tax liabilities within that jurisdiction.

(e) Retirement benefit costs

Payments to defined contribution retirement benefit schemes are charged as an expense as they fall due. Payments made to state managed retirement benefit schemes are dealt with as payments to defined contribution schemes where the Group's obligations under the schemes are equivalent to those arising in a defined contribution retirement benefit scheme.

For defined benefit retirement schemes the cost of providing benefits is determined using the Projected Unit Credit Method, with actuarial valuations being carried out at each reporting period end. The Group applies IAS 19 *'Employee Benefits'* to recognise all actuarial gains and losses directly within retained earnings, presenting those arising in any one reporting period as part of the relevant statement of comprehensive income. In applying IAS 19, in relation to retirement benefits costs, the current service cost and net interest cost have been treated as a net expense within employment costs. Past service cost is recognised immediately.

The retirement benefit asset or liability recognised in the balance sheet represents the fair value of scheme assets less the present value of the defined benefit obligation, plus the present value of available refunds and reductions in future contributions to the plan.

The Company has assessed the International Accounting Standards Board's exposure draft on proposed amendments to IFRIC 14 *IAS 19 - The Limit on a Defined Benefit Asset, Minimum Funding Requirements and their Interaction*, which was issued in June 2015 on its main defined pension scheme, the BSPS. This provides additional clarity on the role of Trustees' rights in an assessment of the recoverability of a surplus in an employee pension fund. Based on the BSPS scheme rules as at 31 March 2019 the assessment concluded that the Company has an unconditional right to a refund of any surplus after a full run-off, or in the event of a wind-up as the BSPS Trustee does not have any unilateral power to wind-up the scheme or to augment benefits during the life of the plan.

(f) Provisions

Provisions for rationalisation and related measures, environmental remediation and legal claims are recognised when the Group has a present legal or constructive obligation as a result of past events, it is more likely than not that an outflow of resources will be required to settle the obligation, and the amount can be reliably estimated. This involves a series of management judgements and estimates that are based on past experience of similar events and third party advice where applicable. Where appropriate and relevant those provisions are discounted to take into consideration the time value of money.

In particular, redundancy provisions are made where the plans are sufficiently detailed and well advanced, and where appropriate communication to those affected has been made at the end of the reporting period. These provisions also include charges for any termination costs arising from enhancement of retirement or other post-employment benefits for those employees affected by these plans.

Provisions are also created for long-term employee benefits that depend on the length of service, such as long service and sabbatical awards, disability benefits and long-term compensated absences such as sick leave. The amount recognised as a liability is the present value of benefit obligations at the end of the reporting period, and all movements in the provision (including actuarial gains and losses or past service costs) are recognised immediately within profit and loss.

TSE participates in the EU ETS, initially measuring any rights received or purchased at cost, and recognises a provision in relation to carbon dioxide quotas if there is any anticipated shortfall in the level of quotas received or purchased when compared with actual emissions in a given period. Any surplus is only recognised once it is realised in the form of an external sale.

VI Other accounting policies

(a) Basis of consolidation

The consolidated income statement, statement of comprehensive income, balance sheet, statement of changes in equity and statement of cash flows include the Company and its subsidiaries. They also include the Group's share of the profits, net assets and retained post acquisition reserves of joint ventures and associates that are consolidated using the equity method of consolidation. The profits or losses of subsidiaries, joint ventures and associates acquired or sold during the period are included from the date of acquisition or up to the date of their disposal. All intra-group transactions, balances, income and expenses are eliminated on consolidation, including unrealised profits on such transactions.

(b) Business combinations

On the acquisition of a subsidiary, joint venture or associate, fair values are attributed to the net assets acquired. Any excess of the fair value of consideration given (including the fair value of any contingent consideration) over the fair values of the Group's share of the identifiable net assets acquired is treated as goodwill. The costs of acquisition are charged to profit and loss in the period in which they are incurred. If the fair value of the net assets acquired exceeds the fair value of consideration then these fair values are reassessed before taking the remainder as a credit to profit and loss in the period of acquisition.

Goodwill is recognised as an asset. Although it is not amortised, it is reviewed for impairment annually and whenever there is a possible indicator. Any impairment is recognised immediately in profit and loss and cannot subsequently be reversed. On disposal of a subsidiary, joint venture or associate any residual amount of goodwill is included in the determination of the profit or loss on disposal.

Where an acquisition is achieved in stages, upon obtaining control the previously held equity interest is reassessed at fair value and any resulting gain or loss is recognised in profit and loss.

The Group has applied IFRS 3 (Revised) 'Business Combinations' to business combinations after 1 April 2010. The accounting for business combinations transacted prior to this date has not been restated.

(c) Revenue

The Group's revenue is primarily derived from the single performance obligation to transfer steel products under arrangements in which the transfer of control of the products and the fulfilment of the Group's performance obligation occur at the same time. Revenue from the sale of goods is recognised when the Group has transferred control of the goods to the buyer and the buyer obtains the benefits from the goods, the potential cash flows and the amount of revenue (the transaction price) can be measured reliably, and it is probable that the Group will collect the consideration to which it is entitled to in exchange for the goods.

(i) Sale of goods

The group manufactures and sells a range of steel products. Sales are recognised when control of the products has transferred, being when the products are delivered to the customer. Delivery occurs when the products have been shipped to the specific location, the risks of obsolescence and loss have been transferred, and either the customer has accepted the products in accordance with the sales contract, or the group has objective evidence that all criteria for acceptance have been satisfied.

The steel is often sold with volume discounts based on aggregate sales over a 12 month period. Revenue from these sales is recognised based on the price specified in the contract, net of the estimated volume discounts. Accumulated experience is used to estimate and provide for the discounts, using the expected value method, and revenue is only recognised to the extent that it is highly probable that a significant reversal will not occur. A contract liability is recognised for expected volume discounts payable to customers in relation to sales made until the end of the reporting period. No element of financing is deemed present as the sales are made with a credit term of 60 days, which is consistent with market practice. Any obligation to provide a refund is recognised as a provision.

A receivable is recognised when the goods are delivered as this is the point in time that the consideration is unconditional because only the passage of time is required before the payment is due.

The Group does not expect to have any contracts where the period between the transfer of the promised goods or services to the customer and payment by the customer exceeds one year. As a consequence, the group does not adjust any of the transaction prices for the time value of money.

(ii) Rendering of services

In addition to the sale of steel, the Group provides the following post-sale services which have been identified as distinct performance obligation under IFRS 15:

1) Bill and Hold Arrangements

A bill and hold arrangement arises when a customer is invoiced for steel that are ready for delivery but are not shipped to the customer until a later date. These sales are recognised when the following criteria are met:

a. the reason for the bill-and-hold arrangement must be substantive (for example, the customer has requested the arrangement);
b. the product must be identified separately as belonging to the customer;
c. the product currently must be ready for physical transfer to the customer; and
d. the entity cannot have the ability to use the product or to direct it to another customer.

Any significant custodial element included in the sales price should be separately recognised over the term of the holding period. On assessment of this requirement, the Group has noted that the effect was immaterial and no adjustment is required.

2) Shipping and Handling Activity

Some shipping arrangements result in the Group incurring the costs to deliver goods to the named port of destination (which include insurance and freight) which are considered to be distinct performance obligations under IFRS 15 as control of the goods passes at the port of shipment but the seller still has a separate obligation to arrange and pay for the freight and/or insurance to the port of destination.
The majority of steel supply contracts will include charges in relation to shipping and handling. There may be a separate fee for shipping and handling costs or shipping and handling might be implicit in the price per ton of the product.

The estimated impact of the deferral of shipping revenue is not sufficiently material to warrant the business to make a regular adjustment in respect of this.

3) Hire Work (Customer Own Material Processing)

The title of ownership has passed at the point of sale, before commencing the hire work. This is therefore considered a distinct performance obligation. Hire work generally only takes a matter of days therefore any adjustment to revenue under IFRS 15 is deemed immaterial.

(d) Government grants

Grants related to expenditure on property, plant and equipment are credited to the income statement over the useful lives of qualifying assets. Grants related to revenue are credited to the income statement in line with the timing of when costs associated with the grants are incurred. Total grants received less the amounts credited to income statement at the end of the reporting period are included in the balance sheet as deferred income.

(e) Insurance

Certain aspects of the Group's insurances are handled by its captive insurance company, Crucible Insurance Company Limited, which accounts for all insurance business on an annual basis and the net consolidated result is dealt with as part of the operating costs in these accounts. Insurance premiums in respect of insurance placed with third parties and reinsurance premiums in respect of risks not retained by the Group's captive insurance company are charged to profit and loss in the period to which they relate.

(f) Financing items

Interest income is accrued on a time basis, by reference to the principal outstanding and at the effective interest rate applicable.

Interest expense, excluding that related to financing the construction of qualifying property, plant and equipment from 1 April 2009, is expensed as incurred. Discounts or premiums and expenses on the issue of debt securities are amortised over the term of the related security and included within interest expense. Unamortised amounts are shown in the balance sheet as part of the outstanding balance of the related security. Premiums payable on early redemptions of debt securities, in lieu of future interest costs, are written off as interest expense when paid.

(g) Foreign currencies

Monetary assets and liabilities in foreign currencies are translated into sterling at the quoted rates of exchange ruling at the end of each reporting period. Income statement items and cash flows are translated into sterling at the average rates for the financial period. In order to hedge its exposure to certain foreign exchange transaction risks, the Group enters into forward contracts and options (see (h) below for details of the Group's accounting policies in respect of such derivative financial instruments). In preparing the financial statements of the individual companies, transactions in currencies other than the entity's functional currency are recognised at the rates of exchange prevailing on the dates of the transactions.

Exchange differences on the retranslation of the opening net investment in foreign enterprises and the retranslation of profit and loss items from average to closing rate are recorded as movements on reserves. Such cumulative exchange differences are transferred to profit and loss on subsequent disposal of the foreign enterprise and for other substantial reductions in capital in these enterprises during the period. Under IAS 21, cumulative translation differences on the consolidation of subsidiaries are only being accumulated for each individual subsidiary from the date of acquisition.

Goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as assets and liabilities of the foreign entity and translated at the closing rate.

(h) Financial instruments

Financial assets and financial liabilities are recognised on the Group's balance sheet when the Group becomes a party to the contractual provisions of the instrument.

Financial assets and financial liabilities are initially measured at fair value. The detailed accounting treatment for such items can differ, as described in the following sections:

(i) Financial assets

All regular way purchases or sales of financial assets are recognised and derecognised on a trade date basis. Regular way purchases or sales are purchases or sales of financial assets that require delivery of assets within the time frame established by regulation or convention in the marketplace.
All recognised financial assets are measured subsequently in their entirety at either amortised cost or fair value, depending on the classification of the financial assets.

Classification of financial assets

Debt instruments that meet the following conditions are measured subsequently at amortised cost:

- the financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows; and
- the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Debt instruments that meet the following conditions are measured subsequently at fair value through other comprehensive income (FVTOCI):

- the financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling the financial assets; and
- the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

By default, all other financial assets are measured subsequently at fair value through profit or loss (FVTPL).

(ii) Impairment of financial assets

The Group recognises a loss allowance for expected credit losses on investments in debt instruments that are measured at amortised cost or at FVTOCI, lease receivables, trade receivables and contract assets. The amount of expected credit losses is updated at each reporting date to reflect changes in credit risk since initial recognition of the respective financial instrument.
The Group always recognises lifetime ECL for trade receivables, contract assets and lease receivables.

For all other financial instruments and in the case of the company intercompany receivables, the Group recognises lifetime ECL when there has been a significant increase in credit risk since initial recognition. However, if the credit risk on the financial instrument has not increased significantly since initial recognition, the Group measures the loss allowance for that financial instrument at an amount equal to 12-month ECL.

The measurement of expected credit losses is a function of the probability of default, loss given default (i.e. the magnitude of the loss if there is a default) and the exposure at default. The assessment of the probability of default and loss given default is based on historical data adjusted by forward-looking information.

(iii) Financial liabilities

All financial liabilities are measured subsequently at amortised cost using the effective interest method or at FVTPL.

Financial liabilities are classified as at FVTPL when the financial liability is (i) contingent consideration of an acquirer in a business combination, (ii) held for trading or (iii) it is designated as at FVTPL.

Financial liabilities at FVTPL are measured at fair value, with any gains or losses arising on changes in fair value recognised in profit or loss to the extent that they are not part of a designated hedging relationship (see Hedge accounting policy). The net gain or loss recognised in profit or loss incorporates any interest paid on the financial liability and is included in profit or loss.

Financial liabilities that are not (i) contingent consideration of an acquirer in a business combination, (ii) held-for-trading, or (iii) designated as at FVTPL, are measured subsequently at amortised cost using the effective interest method.

(iv) Derivative financial instruments and hedge accounting

In the ordinary course of business the Group uses certain derivative financial instruments to reduce business risks which arise from its exposure to foreign exchange, base metal prices and interest rate fluctuations. The instruments are confined principally to forward foreign exchange contracts, forward rate agreements, interest rate swaps and London Metal Exchange (LME) contracts. The instruments are employed as economic hedges of transactions included in the accounts or forecast for firm contractual commitments. Contracts do not generally extend beyond 6 months, except for certain interest rate swaps and commodity contracts.

Derivatives are initially accounted for and measured at fair value from the date the derivative contract is taken out. Following this, at each subsequent reporting period end the derivative is re-measured at its current fair value. For forward currency contracts, interest rate swaps and commodity contracts the fair values are determined based on market forward rates at the end of the reporting period. The Group seeks to adopt hedge accounting for these currency, interest rate and commodity contracts. At inception of the hedge relationship, the group documents the economic relationship between hedging instruments and hedged items including whether changes in the cash flows of the hedging instruments are expected to offset changes in the cash flows of hedged items. This documentation includes, inter alia, items such as identification of the hedged item or transaction and the nature of the risk being hedged. At inception each hedge is expected to be highly effective in achieving an offset of changes in fair value or cash flows attributable to the hedged risk. The methodology of testing the effectiveness and the reliability of this approach for testing is also considered and documented at inception. This effectiveness is assessed on an ongoing basis throughout the life cycle of the hedging relationship. In particular, only forecast transactions that are highly probable are subject to cash flow hedges. 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 and the ineffective portion is recognised immediately in profit and loss. If the cash flow hedge of a firm commitment or forecasted transaction results in the recognition of a non-financial asset or liability, then, at the time the asset or liability is recognised, the associated gains or losses on the derivative that had previously been recognised in equity are included in the initial measurement of the asset or liability. For hedges that do not result in the recognition of a non-financial asset or a liability, amounts deferred in equity are recognised in profit and loss in the same period in which the hedged item affects profit and loss.

For an effective hedge of an exposure to changes in fair value, the hedged item is adjusted for changes attributable to the risk being hedged with the corresponding entry in profit and loss. Gains or losses from re-measuring the associated derivative are also recognised in profit and loss.

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

Hedge accounting is discontinued when the hedging instrument expires or is sold, terminated, 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 forecasted transaction occurs. If a hedged transaction is no longer expected to occur, the net cumulative gain or loss recognised in equity is reclassified to net profit or loss for the period.

(v) Embedded derivatives

An embedded derivative is a component of a hybrid contract that also includes a non-derivative host – with the effect that some of the cash flows of the combined instrument vary in a way similar to a stand-alone derivative.

Derivatives embedded in hybrid contracts with a financial asset host within the scope of IFRS 9 are not separated. The entire hybrid contract is classified and subsequently measured as either amortised cost or fair value as appropriate.

Derivatives embedded in hybrid contracts with hosts that are not financial assets within the scope of IFRS 9 (e.g. financial liabilities) are treated as separate derivatives when they meet the definition of a derivative, their risks and characteristics are not closely related to those of the host contracts and the host contracts are not measured at FVTPL.

If the hybrid contract is a quoted financial liability, instead of separating the embedded derivative, the Group generally designates the whole hybrid contract at FVTPL.

An embedded derivative is presented as a non-current asset or non-current liability if the remaining maturity of the hybrid instrument to which the embedded derivative relates is more than 12 months and is not expected to be realised or settled within 12 months.

(i) Other intangible assets

Patents, trademarks and software are included in the balance sheet as intangible assets where they are clearly linked to long-term economic benefits for the Group. In this case they are measured initially at fair value on acquisition or purchase cost and then amortised on a straight-line basis over their estimated useful lives. All other costs on patents, trademarks and software are expensed in profit and loss as incurred.

Expenditure on research activities is recognised as an expense in the period in which it is incurred. Costs incurred on individual development projects are recognised as intangible assets from the date that all of the following conditions are met:
(i) completion of the development is technically feasible;
(ii) it is the intention to complete the intangible asset and use or sell it;
(iii) it is clear that the intangible asset will generate probable future economic benefits;
(iv) adequate technical, financial and other resources to complete the development and to use or sell the intangible asset are available; and
(v) it is possible to reliably measure the expenditure attributable to the intangible asset during its development.

Costs are no longer recognised as an asset when the project is complete and available for its intended use, or if these criteria no longer apply. The approach to amortisation and impairment of other intangible assets is described in section V (b) above.

Where development activities do not meet the conditions for recognition as an asset, any associated expenditure is treated as an expense in the period in which it is incurred.

(j) Leases

The Group determines whether an arrangement contains a lease by assessing whether the fulfilment of a transaction is dependent on the use of a specific asset and whether the transaction conveys the right to use that asset to the Group in return for payment. Where this occurs, the arrangement is deemed to include a lease and is accounted for as such.

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

Assets held under finance leases are recognised as assets of the Group at their fair value or, if lower, at the present value of the minimum lease payments, each determined at the inception of the lease. The corresponding liability to the lessor is included in the balance sheet as a finance lease obligation. Lease payments are apportioned between finance charges and reduction of the lease obligation so as to achieve a constant rate of interest on the remaining balance of the liability. Finance charges are charged directly against income over the period of the lease.

(k) Joint ventures, joint operations and associates

The results and assets and liabilities of joint ventures and associates are incorporated in the accounts using the equity method of accounting, except where classified as held for sale (see section V(c) above).

Investments in joint ventures and associates are initially measured at cost. Any excess of the cost of acquisition over the Group's share of the fair values of the identifiable net assets acquired, being goodwill, is included within the carrying value of the joint venture or associate and is subsequently tested for impairment on an annual basis. Any deficiency of the cost of acquisition below the Group's share of the fair values of the identifiable net assets acquired is credited to profit or loss in the period of acquisition. The Group's share of post-acquisition profits and losses is recognised in profit and loss, and its share of post-acquisition movement in reserves are recognised directly in reserves. Losses of associates in excess of the Group's interest in those associates are not recognised, unless the Group has incurred obligations or made payments on behalf of the associate.

Unrealised gains on transactions with joint ventures or associates are eliminated to the extent of the Group's interest in those entities and, where material, the results of joint ventures and associates are modified to conform to the Group's policies.

A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets and obligations for the liabilities relating to the arrangement. Joint operations are accounted for by recognising the share of assets, liabilities, expenses and income relating to the joint operation.

(l) Inventories

Inventories of raw materials are valued at the lower of cost and net realisable value. Inventories of partly processed materials, finished products and stores are individually valued at the lower of cost and net realisable value. Cost comprises direct materials and, where applicable, direct labour costs and those overheads that have been incurred in bringing the inventories to their present location and condition. Net realisable value is the price at which the inventories can be realised in the normal course of business after allowing for the cost of conversion from their existing state to a finished condition and for the cost of marketing, selling and distribution. Provisions are made to cover slow moving and obsolete items based on historical experience of utilisation on a product category basis, which involves individual businesses considering their local product lines and market conditions.

(m) Cash and cash equivalents

Cash and cash equivalents includes cash in hand, deposits held at call with banks, other short-term highly liquid investments with original maturities of three months or less, and bank overdrafts. Bank overdrafts are shown within borrowings in current liabilities on the balance sheet.

For the financial year ended 31 March

1. Revenue

The Group derives its revenue from contracts with customers for the transfer of goods and services over time and at a point in time in the following major geographic regions. This disaggregation is consistent with the information regularly reviewed by the Chief Executive Officer in order to evaluate the financial performance of the Group.

	2019 £m	2018 £m
Revenue by destination:		
UK	**1,616**	1,600
The Netherlands	**661**	687
Europe excluding UK and The Netherlands	**3,613**	3,731
North America	**792**	690
Rest of the world	**388**	280
	7,070	6,988

2. Operating costs

	2019 £m	2018 £m
Costs by type:		
Raw materials and consumables	**3,377**	3,508
Maintenance costs (excluding own labour)	**552**	467
Other external charges (including fuels & utilities, hire charges and carriage costs)	**1,034**	951
Employment costs (Note 4)	**1,330**	(333)
Depreciation, amortisation and impairments (Notes 9 and 10)	**244**	243
Regional development and other grants relating to property, plant and equipment released (Note 25)	**(1)**	(2)
Other operating items (including rents, rates, insurance and general expenses)	**459**	421
Income on emissions rights sales	**(211)**	(11)
Changes in inventory of finished goods and work in progress	**16**	(42)
Own work capitalised	**(45)**	(39)
Profit on disposal of property, plant and equipment	**(28)**	(1)
Loss on disposal of group undertakings (Note 34)	**-**	3
	6,727	5,165

	Operating items before restructuring, impairment and disposals £m	Restructuring, impairment and disposals (i) £m	Exceptional items (ii) £m	Total £m
The above cost in 2019 include:				
Raw materials and consumables	**3,377**	-	-	**3,377**
Maintenance costs (excluding own labour)	**552**	-	-	**552**
Other external charges (including fuels & utilities, hire charges and carriage costs)	**1,034**	-	-	**1,034**
Employment costs (Note 4)	**1,321**	5	4	**1,330**
Depreciation, amortisation and impairments (Notes 9 and 10)	**221**	23	-	**244**
Regional development and other grants relating to property, plant and equipment released (Note 25)	**(1)**	-	-	**(1)**
Other operating items (including rents, rates, insurance and general expenses)	**451**	3	5	**459**
Income on emissions rights sales	**(211)**	-	-	**(211)**
Changes in inventory of finished goods and work in progress	**16**	-	-	**16**
Own work capitalised	**(45)**	-	-	**(45)**
Profit on disposal of property, plant and equipment	**-**	(28)	-	**(28)**
	6,715	3	9	6,727

(i) Further analysis of restructuring and impairment costs is presented in Note 3.
(ii) Further details regarding the net exceptional cost of £9m can be found in the financial review (page 14), Note 21, and Note 22(v).

	2019 £m	2018 £m
The above costs are stated after including:		
Amortisation of other intangible assets (Note 9)	**16**	14
Depreciation of owned assets (Note 10)	**201**	194
Impairment losses relate to other intangible assets (Note 9)	**10**	-
Impairment losses related to property, plant and equipment (Note 10)	**13**	35
Depreciation of assets held under finance leases	**4**	6
Net exchange rate gains	**(32)**	(6)
Operating leases:		
Plant and machinery	**22**	22
Leasehold property	**31**	30
Costs of research and development (gross)	**61**	65
Recoveries on research and development	**(3)**	(28)
Profit on release of grants (Note 25)	**(1)**	(3)
Income on emissions rights sales	**(211)**	(11)
Charge on emissions rights deficit	**2**	-
Impairments against trade receivables (Note 16 (ii))	**2**	3

The analysis of the Group auditors' remuneration is as follows:

	2019 £m	2018 £m
Fees payable to the Group's auditors and their associates for the audit of the Group	**1.8**	1.4
Audit-related assurance services	**0.8**	0.4
Taxation services	**0.2**	0.1
Total non-audit fees	**1.0**	0.5
Total Group auditors' remuneration	**2.8**	1.9

Fees payable in respect of the audit of the Company were £7,600 (2018: £7,600). Fees payable 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. Fees payable in respect of audit-related assurance services of £0.8m (2018: £0.4m) primarily relate to quarterly reviews undertaken by the Group's auditors.

3. Net restructuring and impairment costs

	2019 £m	2018 £m
Provision for restructuring and related measures:		
Redundancy and related costs	**5**	1
Impairment losses related to property, plant and equipment (Note 9)	**13**	35
Impairment losses related to intangible fixed assets (Note 8)	**10**	-
Other rationalisation costs	**3**	1
	31	37
Credits for restructuring and related measures:		
Other rationalisation costs	**-**	(1)
	-	(1)
Total net restructuring and impairment costs	**31**	36

The provision for redundancy and related costs of £5m (2018: £1m) related to restructuring measures across many units within the Group.

4. Employees

	2019 £m	2018 £m
The total employment costs of all employees (including directors) in the Group were:		
Wages and salaries	**1,083**	1,046
Social security costs	**149**	139
Pension costs (Note 21)	**89**	121
Exceptional pension items (Note 2)	**4**	(1,640)
Redundancy and related costs (Note 2)	**5**	1
	1,330	(333)

(i) Exceptional pensions items includes a net pension charge of £4m (2018: credit of £1,649m) in respect of changes to the BSPS (see Note 21).

(ii) The average number of employees during the year for continuing operations was 21,400 (2018: 21,100). This total includes operations staff of 17,500 (2018: 17,400), sales and marketing staff of 1,200 (2018: 1,200) and other staff of 2,700 (2018: 2,500).

(iii) Directors' remuneration

	2019 £m	2018 £m
The total employment costs of the directors in the Group were:	**2.7**	3.7

There are no retirement benefits accruing to any directors under defined benefit schemes (2018: nil).

The emoluments of Mr T V Narendran and Mr K Chatterjee are paid by TSL which makes no recharge to TSE. Mr T V Narendran and Mr K Chatterjee are directors of TSL, TSE and a number of fellow subsidiaries of TSL and it is not possible to make an accurate apportionment of their emoluments in respect of each of the subsidiaries. Accordingly, the above details include no emoluments for the aforementioned, whose emoluments are disclosed in the financial statements of TSL with whom they have their primary employment contract.

(iv) Highest paid director

	2019 £m	2018 £m
Total amount of emoluments	**1.0**	1.5

There is no accrued lump sum falling due under a defined benefit pension scheme (2018: nil).

(v) Other pension costs can be further analysed as follows:

	2019 £m	2018 £m
Other defined benefit scheme costs (Note 21)	**(35)**	3
Other defined contribution scheme costs (Note 21)	**126**	118
Costs for setting up the new BSPS scheme borne directly by the company (Note 21)	**2**	-
	93	121

(vi) The Company has no employees. No director received any remuneration during the year in respect of their services to the Company (2018: nil).

5. Financing items

	2019 £m	2018 £m
Interest expense:		
Bank and other borrowings	**98**	111
Finance leases	**3**	4
Interest on loans from immediate parent company (Note 35)	**256**	196
Interest on loans from other Group companies (Note 35)	**75**	74
Effective interest on redeemable non-cumulative preference shares issued to immediate parent company (Note 35)	**2**	2
Discount on disposal of trade receivables within purchase agreement with Group company (Note 35)	**71**	69
Finance costs	**505**	456
Interest income:		
Cash and short-term deposits and short-term investments	**(2)**	(3)
Interest receivable on deferred proceeds	**(3)**	(3)
Finance income	**(5)**	(6)
	500	450

6. Taxation charge

	2019 £m	2018 £m
UK current year charge	**2**	1
Overseas current year charge	**3**	4
UK prior year (credit)/charge	**(2)**	5
Overseas prior year charge/(credit)	**2**	(5)
Current tax charge	**5**	5
UK deferred tax	**11**	35
Overseas deferred tax	**20**	2
Total tax charge	**36**	42

The total income statement charge for the year can be reconciled to the accounting (loss)/profit as follows:

	2019 £m	2018 £m
(Loss)/profit before taxation	**(155)**	1,382
(Loss)/profit multiplied by the applicable corporation tax rate of 19.07% (2018: 19.17%)	**(30)**	265
Effects of:		
Re-measurement of deferred tax balances arising from changes in tax rates	**4**	3
Utilisation of tax losses not previously recognised	**(4)**	(3)
Previously unrecognised tax losses that are expect to be used in the future	**-**	(233)
Previously unrecognised other temporary difference that are expected to be used in the future	**-**	(76)
Current year temporary differences (including losses) that we currently do not expect to use	**66**	88
De-recognition of previously recognised losses	**5**	-
Other permanent differences	**(5)**	(2)
	36	42

The applicable corporation tax rate is the average tax rate weighted in proportion to the accounting profits earned in each geographical area. The decrease in the rate is caused by a change in the profitability and statutory tax rates in the various geographical areas.

Remeasurement of deferred tax balances arising from changes in tax rates of £4m mainly represents the remeasurement of Dutch deferred tax assets following the enactment on 18 December 2018 of a reduction in the Dutch corporate income tax rates, effective from 1 January 2019. The prior year charge of £3m represents a similar revaluation of US deferred tax assets following the reduction in the US federal corporate income tax effective from 1 January 2018.

In addition to the total taxation charge recognised in the income statement, the following credits relating to tax have been recognised directly in other comprehensive income:

	2019 £m	2018 £m
Relating to components of other comprehensive income:		
Actuarial movements on defined benefit pension plans and other post-retirement plans	11	35
Revaluation of financial instruments treated as cash flow hedges	(5)	4
	6	39

7. Discontinued operations

On 1 May 2017, the Group disposed of the trade and assets of its Speciality Steels business to Liberty House Group. On 4 July 2017, the Group subsequently disposed of the trade and assets of its Speciality Chinese Business to Liberty House Group.

In accordance with IFRS 5 'Non-current Assets Held for Sale and Discontinued Operations', these businesses were classified as discontinued operations. The results of the discontinued operations in each of the periods are set out below:

		2019 £m	2018 £m
Revenue		-	19
Operating costs	(i)	-	(13)
Operating profit		-	6
Finance costs		-	-
Profit before taxation		-	6
Taxation charge		-	-
Profit after taxation		-	6
Profit from disposal of discontinued operations		-	1
Profit after taxation from discontinued operations		-	7

In 2019 there has been £nil impact in total comprehensive income in relation to discontinued operations.

In 2018, a profit of £1m arose on the disposal of the Speciality Steels business, being the difference between the fair value of consideration received and the carrying amount of the net assets of the disposal group as at 1 May 2017 (Note 34).

In 2018 a gain of £nil was recognised in other comprehensive income during the year.

(i) Operating costs

	2019 £m	2018 £m
Costs by type:		
Raw materials and consumables	-	10
Maintenance costs (excluding own labour)	-	2
Other external charges (including fuels & utilities, hire charges and carriage costs)	-	9
Employment costs	-	6
Other operating items (including rents, rates, insurance and general expenses)	-	(11)
Changes in inventory of finished goods and work in progress	-	(3)
	-	13

(ii) Employees

	2019 £m	2018 £m
The total employment costs were:		
Wages and salaries	-	5
Social security costs	-	1
	-	6

In 2018, the average number of employees employed during the year to the point of sale within discontinued operations was 1,681.

(iii) There were no cash flows in discontinued operations in 2019. During 2018 discontinued operations resulted in an outflow of £11m to the Group's net operating cash flows, an outflow of £nil in respect of investing activities and an outflow of £nil in respect of financing activities. These movements decreased cash and cash equivalents by £11m.

8. Goodwill

As at 31 March	2019 £m	2018 £m
Net book value	**405**	405

The total net book value predominantly relates to the goodwill that arose on the acquisition of Corus Group PLC ('Corus') and has been tested in both periods against the recoverable amount of the Strip Products Mainland Europe CGU. This goodwill related to expected synergies from combining Corus' activities with those of TSL and to assets, which could not be recognised as separately identifiable intangible assets. Goodwill acquired through this and other acquisitions is tested annually for impairment or more frequently if there are any indications that goodwill may be impaired.

The recoverable amount of the Strip Products Mainland Europe CGU has been determined from a value in use calculation. The calculation uses cash flow forecasts based on the most recently approved financial budgets and strategic forecasts which cover a period of three years and future projections taking the analysis out to 15 years, which equates to the average remaining economic life of the assets. Key assumptions for the value in use calculation are those regarding expected changes to selling prices and raw material costs, EU steel demand, exchange rates, and a discount rate of 8.2% (2018: 8.2%). Changes in selling prices, raw material costs, exchange rates and EU steel demand are based on expectations of future changes in the steel market based on external market sources. A nil growth rate is used to extrapolate the cash flow projections beyond the three-year period of the financial budgets. The pre-tax discount rate of 8.2% (2018: 8.2%) is derived from the Group's weighted average cost of capital ('WACC') and the WACCs of its main European steel competitors. The outcome of the Group's goodwill impairment test as at 31 March 2019 for the Strip Products Mainland Europe CGU resulted in no impairment of goodwill (2018: £nil). The directors believe that no reasonable possible change in any of the key assumptions used in the value in use calculation would cause the carrying value of the CGU to materially exceed its value in use.

9. Other intangible assets

Group:

2019	Computer software £m	Development costs £m	Patents and Trademark £m	Total £m
Cost as at 1 April 2018	283	33	-	**316**
Additions	28	-	-	**28**
Disposals	(1)	-	-	**(1)**
Disposal of group companies	(3)	-	-	**(3)**
Exchange rate movements	-	(2)	-	**(2)**
Reclassification	6	-	-	**6**
Transfer to assets under construction	1	(2)	1	**-**
Cost as at 31 March 2019	314	29	1	**344**
Amortisation as at 1 April 2018	190	24	-	**214**
Charge for the period	12	3	1	**16**
Impairment for the period	10	-	-	**10**
Disposals	(1)	-	-	**(1)**
Disposal of group companies	(3)	-	-	**(3)**
Reclassification	4	-	-	**4**
Amortisation as at 31 March 2019	212	27	1	**240**
Net book value as at 31 March 2019	102	2	-	**104**

The Group recognised an impairment charge of £10m in the current year (2018: £nil) against computer software.

E7. Notes to the financial statements

Group:

2018	Computer software £m	Development costs £m	Patents and Trademark £m	Total £m
Cost as at 1 April 2017	263	32	-	295
Additions	21	-	-	21
Disposals	(1)	-	-	(1)
Exchange rate movements	-	1	-	1
Transfer to assets held for sale	-	-	-	-
Cost as at 31 March 2018	283	33	-	316
Amortisation as at 1 April 2017	183	20	-	203
Charge for the period	10	4	-	14
Disposals	(1)	-	-	(1)
Exchange rate movements	(2)	-	-	(2)
Transfer to assets held for sale	-	-	-	-
Amortisation as at 31 March 2018	190	24	-	214
Net book value as at 31 March 2018	93	9	-	102

The remaining amortisation period for computer software is approximately 7 years (2018: 8 years).

Company:

2019	Emission rights £m
Cost as at 1 April 2018	131
Disposals during the period	(131)
Cost as at 31 March 2019	-
Accumulated impairment losses as at 31 March 2019	-
Net book value as at 31 March 2019	**-**
Net book value as at 31 March 2018	131

During the year, the Company disposed of 22.5mt of emission rights to TSUK at an average price of €20.64 (£18.13) per tonne resulting in a profit on disposal of £277m.

10. Property, plant and equipment

2019	Land and buildings £m	Plant and machinery £m	Loose plant and tools £m	Assets in course of construction £m	Total £m
Cost or valuation as at 1 April 2018	729	3,774	192	648	**5,343**
Additions	-	10	51	344	**405**
Disposals	(8)	(34)	(37)	-	**(79)**
Disposal of group undertakings	(10)	(24)	-	-	**(34)**
Exchange rate movements	(11)	(50)	(2)	(8)	**(71)**
Reclassification	-	-	-	(2)	**(2)**
Transfers	59	300	1	(360)	**-**
Cost or valuation as at 31 March 2019	759	3,976	205	622	**5,562**
Depreciation as at 1 April 2018	308	2,734	137	45	**3,224**
Charge for the period	19	157	28	-	**204**
Impairment losses recognised during the period	-	7	2	4	**13**
Disposals	(3)	(33)	(33)	-	**(69)**
Disposal of group undertakings	(9)	(24)	-	-	**(33)**
Exchange rate movements	(4)	(30)	(1)	(1)	**(36)**
Reclassification	-	-	-	(4)	**(4)**
Transfers	-	4	-	(4)	**-**
Depreciation as at 31 March 2019	311	2,815	133	40	**3,299**
Net book value as at 31 March 2019	448	1,161	72	582	**2,263**
Spares (net book value)					**134**
Net book value as at 31 March 2019					**2,397**

Reclassifications comprise movements between property, plant and equipment and intangible assets, and also transfers into Spares.

2018	Land and buildings £m	Plant and machinery £m	Loose plant and tools £m	Assets in course of construction £m	Total £m
Cost or valuation as at 1 April 2017	724	3,572	191	515	**5,002**
Additions	3	27	41	374	**445**
Disposals	(9)	(30)	(33)	-	**(72)**
Disposal of group undertakings	(6)	(70)	(7)	(2)	**(85)**
Exchange rate movements	7	40	-	6	**53**
Transfers	10	235	-	(245)	**-**
Cost or valuation as at 31 March 2018	729	3,774	192	648	**5,343**
Depreciation as at 1 April 2017	292	2,649	145	39	**3,125**
Charge for the period – continuing operations	19	147	28	-	**194**
Impairment losses recognised during the period – continuing operations	4	16	4	8	**32**
Disposals	(5)	(31)	(33)	-	**(69)**
Disposal of group undertakings	(5)	(70)	(7)	(2)	**(84)**
Exchange rate movements	3	23	-	-	**26**
Depreciation as at 31 March 2018	308	2,734	137	45	**3,224**
Net book value as at 31 March 2018	421	1,040	55	603	**2,119**
Spares (net book value)					**123**
Net book value as at 31 March 2018					**2,242**

The Group recognised an impairment charge of £13m in the current year (2018: £35m) against specific items of property, plant and equipment, with £nil of this impairment charge being allocated against spares (2018: £3m).

Consistent with the annual test for impairment of goodwill as at 31 March 2019 (Note 8), property, plant and equipment was also tested for impairment at that date where indicators of impairment existed. The outcome of this test indicated that, using a discount rate of 8.2% (2018: 8.2%), none of the Group's CGUs held a value in use which was lower than its carrying value. Accordingly, no impairment charge has been recognised against the Group's CGU's in the year (2018: £35m recognised mainly against downstream assets in the UK).

The Group has conducted sensitivity analysis on the impairment tests of the carrying value of the Group's CGUs against which property, plant and equipment is allocated. The directors believe that no reasonable possible change in any of the key assumptions used in the value in use calculations (see Note 8) would cause the carrying value of property, plant and equipment in any CGU to materially exceed its value in use.

Spares are shown at net book value. Due to the substantial number of items involved, and the many variations in their estimated useful lives, it is impracticable to give details of the movements normally disclosed in respect of property, plant and equipment.

(i)

As at 31 March	**2019** **£m**	2018 £m
The net book value of land and buildings comprises:		
Freehold	**390**	380
Long leasehold (over 50 years unexpired)	**13**	16
Short leasehold	**45**	25
	448	421
Which may be further analysed as:		
Assets held under finance leases:		
Cost	**73**	53
Accumulated depreciation	**(29)**	(27)
	44	26
Owned assets	**404**	395
	448	421

(ii)

As at 31 March	**2019** **£m**	2018 £m
The net book value of plant and machinery comprises:		
Assets held under finance leases:		
Cost	**164**	164
Accumulated depreciation and impairment losses	**(144)**	(140)
	20	24
Owned assets	**1,137**	1,016
	1,157	1,040

(iii)

As at 31 March	**2019** **£m**	2018 £m
The net book value of spares comprises:		
Cost	**475**	454
Accumulated depreciation and impairment losses	**(341)**	(331)
	134	123

(iv) There was £nil (2018: £nil) borrowing costs capitalised in the period.

11. Equity accounted investments

Group:

As at 31 March	Interests in joint ventures £m	Investments in associates £m	2019 Total £m	2018 Total £m
Cost				
At beginning of period	10	10	**20**	29
Disposals	(1)	-	**(1)**	(9)
At end of period	9	10	**19**	20
Post acquisition reserves				
Share at beginning of period	10	10	**20**	10
Share of retained results in the period	-	(4)	**(4)**	6
Disposals	1	-	**1**	4
Share at end of period	11	6	**17**	20
Net book value at end of period	20	16	**36**	40
Net book value at beginning of period	20	20	40	34

(i) The Group's equity accounted investments are listed in Note 38.

(ii) Summarised information in respect of the Group's joint ventures is presented below:

As at 31 March	2019 £m	2018 £m
Share of the assets and liabilities of the Group's joint ventures:		
Non-current assets	**25**	32
Current assets	**24**	32
Current liabilities	**(15)**	(25)
Non-current liabilities	**(14)**	(19)
Group's share of net assets	**20**	20
Share of the revenue and expenses of the Group's joint ventures:		
Revenue	**61**	60
Expenses	**(58)**	(57)
Group's share of joint ventures' profit for the period after taxation	**3**	3
Dividends received	**(3)**	(1)
Group's share of retained results in the period	**-**	2

(iii) Summarised information in respect of the Group's associates is presented below:

As at 31 March	2019 £m	2018 £m
Summarised balance sheet information:		
Total assets	**86**	96
Total liabilities	**(36)**	(36)
Net assets	**50**	60
Group's share of net assets	**16**	20
Summarised income statement information:		
Revenue	**252**	313
Profit for the period	**3**	16
Group's share of associate's profit for the period after taxation	**1**	6
Dividends received	**(5)**	(2)
Group's share of retained results in the period	**(4)**	4

(iv) The share of post-tax profits of joint ventures and associates as disclosed in the income statement arose as follows:

	2019 £m	2018 £m
Group's share of joint ventures' profit for the period	**3**	3
Group's share of associates' profit for the period	**1**	6
Profit on disposal	**3**	-
Sale adjustment	**(5)**	-
Share of post-tax results of joint ventures and associates	**2**	9

(v) On 6 August 2018 the Group completed the sale of Afon Tinplate which resulted in a profit on disposal of £3m and a cash inflow of £3m.

(vi) On 10 July 2017 the Group completed the sale of Tata Elastron S.A., which resulted in a profit on disposal of £nil and a cash inflow of £nil.

(vii) On 23 June 2017, TSE transferred its 25% shareholding in Caparo Merchante Bar to Caparo Steel Products as a result of the liquidation of Caparo Steel Products. This holding had previously been impaired to nil value. Therefore, the profit on disposal was £nil and the cash inflow was £nil.

Company:

	Shares in subsidiary undertakings £m	Loans to subsidiary undertakings £m	Total £m
Cost at 1 April 2018	3,503	3,905	**7,408**
Additions	-	1,054	**1,054**
Cost at 31 March 2019	3,503	4,959	**8,462**
Impairment as at 1 April 2018	3,503	2,412	**5,915**
Impairment losses recognised in the period	-	-	**-**
Impairment as at 31 March 2019	3,503	2,412	**5,915**
Net book value at 31 March 2019	**-**	**2,547**	**2,547**
Net book value at 31 March 2018	-	1,493	1,493

During the year ended 31 March 2019, the company loaned £864m to Tulip UK Holdings No.3 Limited. Interest is charged at rates between LIBOR +3-5% and is rolled into the principal when due.

The Company's subsidiaries and investments are listed in Note 38 of the consolidated accounts.

The carrying values of the Company's investments are tested annually for impairment using an enterprise value calculation. The calculation uses cash flow forecasts based on the most recently approved financial budgets and strategic forecasts which cover a period of three years and future projections taking the analysis out into perpetuity. Key assumptions for the value in use calculation are those regarding expected changes to selling prices and raw material costs, EU steel demand, exchange rates, and a discount rate of 8.2% (2018: 8.2%). Changes in selling prices, raw material costs, exchange rates and EU steel demand are based on expectations of future changes in the steel market based on external market sources. A nil growth rate is used to extrapolate the cash flow projections beyond the three-year period of the financial budgets to perpetuity and also nil for the period thereafter for the non-UK based businesses. The pre-tax discount rate of 8.2% is derived from the Group's WACC and the WACCs of its main European steel competitors. The outcome of the test at 31 March 2019 resulted in no further permanent diminution (2018: no further permanent diminution) in the value of the Company's equity investment in Tulip UK Holdings No.2 Limited, and no further permanent diminution (2018: no further permanent diminution) in the Company's loan investment in Tulip Holdings No.3 Limited.

The Company has conducted sensitivity analysis on the impairment tests of the carrying value of the Company's investment in Tulip UK Holdings No. 2 Limited. The directors believe that no reasonable possible change in any of the key assumptions used in the Enterprise Value calculations would cause the carrying value of the investment to exceed its EV.

12. Other investments

	Loans and receivables £m	Investments £m	2019 Total £m	2018 Total £m
Carrying value as at 1 April 2018	10	23	**33**	45
Additions	2	1	**3**	12
Disposals	(2)	(10)	**(12)**	(24)
Carrying value as at 31 March 2019	10	14	**24**	33

None of the loans and receivables or investments at Fair Value Through Other Comprehensive Income (FVTOCI) are either overdue or impaired.

(i) The currency and interest exposure of other investments of the Group is as follows:

	2019			2018		
	Fixed rate long-term financial assets £m	Floating rate long-term financial assets £m	Total £m	Fixed rate long-term financial assets £m	Floating rate long-term financial assets £m	Total £m
Sterling	**12**	**6**	**18**	13	14	27
Euros	**4**	**2**	**6**	4	2	6
	16	**8**	**24**	17	16	33
Disclosed as:						
Loans and receivables	**8**	**2**	**10**	8	2	10
Investments	**8**	**6**	**14**	9	14	23

	2019		2018	
	Weighted average effective fixed interest rate %	Weighted average time for which rate is fixed Years	Weighted average effective fixed interest rate %	Weighted average time for which rate is fixed Years
Sterling	**8.2**	**2.9**	5.6	3.9

(ii) Contractual maturities of other investments are as follows:

As at 31 March	2019 £m	2018 £m
Within one year	**1**	1
Between two and five years	**5**	9
Greater than five years	**-**	4
No contractual maturity date	**18**	19
	24	33

(iii) Of the investments of £14m above (2018: £23m), £nil (2018: £10m) are held by TSE's subsidiary company Crucible Insurance Company Limited to fund insurance liabilities of the Group analysed as shown below. These investments held to fund insurance liabilities were liquidated during the year.

As at 31 March	2019 £m	2018 £m
UK listed investments	**-**	3
Overseas listed investments	**-**	6
Other investments	**-**	1
	-	10

13. Long term receivables

	2019 £m	2018 £m
Deferred proceeds on sale of business	**28**	37
	28	37

14. Deferred tax

	2019 £m	2018 £m
Deferred tax assets	**73**	**98**
Deferred tax liabilities	**(1)**	**(2)**
	72	**96**

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

2019	Accelerated tax depreciation £m	Tax losses £m	Retirement benefit obligations £m	Inventory £m	Provisions £m	Interest £m	Other £m	Total £m
At 1 April 2018	23	342	(313)	2	10	33	(1)	**96**
Credited/(charged) to income statement	44	(78)	(27)	-	(3)	33	-	**(31)**
Exchange rate movements	-	(1)	-	-	-	-	2	**1**
Credited/(charged) to other comprehensive income	-	-	11	-	-	-	(5)	**6**
At 31 March 2019	**67**	**263**	**(329)**	**2**	**7**	**66**	**(4)**	**72**

2018	Accelerated tax depreciation £m	Tax losses £m	Retirement benefit obligations £m	Inventory £m	Provisions £m	Interest £m	Other £m	Total £m
At 1 April 2017	(14)	129	(38)	4	12	-	2	**95**
Credited/(charged) to income statement	38	211	(310)	(2)	(2)	33	(5)	**(37)**
Exchange rate movements	(1)	2	-	-	-	-	(2)	**(1)**
Credited to other comprehensive income	-	-	35	-	-	-	4	**39**
At 31 March 2018	**23**	**342**	**(313)**	**2**	**10**	**33**	**(1)**	**96**

Deferred tax assets of £73m (2018: £98m) have been recognised at 31 March 2019. In evaluating whether it is probable that taxable profits will be earned in future accounting periods, all available evidence was considered, including TSE Board approved budgets and forecasts. Following this evaluation, it was determined there would be sufficient taxable income generated to realise the benefit of the deferred tax assets. Deferred tax assets have not been recognised in respect of total tax losses of £3,708m (2018: £3,912m). These losses comprise UK losses of £2,806m (2018: £2,779m) and non-UK losses of £902m (2018: £1,133m). Included in unrecognised tax losses are losses of £26m (2018: £nil) that will expire within one year, £298m (2018: £602m) that will expire between one and five years, losses of £192m (2018: £208m) that will expire between five and ten years and £nil (2018: £1m) that will expire between ten and twenty years. Other losses may be carried forward indefinitely.

Deferred tax assets have also not been recognised in respect of deductible temporary differences and unused tax credits of £334m (2018: £171m), of which £223m (2018: £77m) will expire within five years and the remainder do not carry an expiry date.

At the end of the reporting period, the aggregate amount of temporary differences associated with undistributed earnings of subsidiaries, joint ventures and associates for which deferred tax liabilities have not been recognised is £233m (2018: £214m). No liability has been recognised in respect of these differences because the Group is in a position to control the timing of the reversal of the temporary differences and it is probable that such differences will not reverse in the foreseeable future.

The Finance (No. 2) Act 2017 (substantively enacted 15 November 2017), which restricts the Group's ability to deduct interest in the UK and restrict the use of losses, is reflected in the deferred tax asset position at 31 March 2019.

Company:

Movement on deferred tax assets:	2019 £m	2018 £m
At beginning of period	8	8
Credited to the income statement	-	-
	8	8

Deferred tax assets of £8m (2018: £8m), in respect of tax losses, have been recognised at 31 March 2019. In evaluating whether it is probable that taxable profits will be earned in future accounting periods, all available evidence was considered, including TSE Board approved budgets and forecasts. Following this evaluation, it was determined there would be sufficient taxable income generated to realise the benefit of the deferred tax assets.

There is no material reversal of the deferred tax asset expected in the next 12 months.

15. Inventories

As at 31 March	2019 £m	2018 £m
Raw materials and consumables	533	477
Work in progress	492	544
Finished goods and goods for resale	490	471
	1,515	1,492

The value of inventories above is stated after impairment of £42m (2018: £43m) for obsolescence and write-downs to net realisable value.

16. Trade and other receivables

Group:

As at 31 March	2019 £m	2018 £m
Trade receivables	576	618
Less provision for impairment of receivables	(6)	(6)
	570	612
Amounts owed by ultimate parent company (Note 35)	4	-
Amounts owed by other Group companies (Note 35)	9	6
Amounts owed by joint ventures (Note 35)	8	4
Amounts owed by associates (Note 35)	-	8
Derivative financial instruments (Note 24)	20	9
Other taxation	17	49
External interest receivable	2	1
Prepayments	30	36
Deferred proceeds on sale of business	12	15
Other receivables	75	78
	747	818

(i) Trade receivables are further analysed as follows:

As at 31 March 2019	Gross credit risk amount £m	Subject to credit insurance cover £m	Impairment provision made £m	Net credit risk amount £m
Amounts not yet due	511	(479)	(1)	31
One month overdue	38	(34)	-	4
Two months overdue	7	(6)	-	1
Three months overdue	3	(2)	-	1
Greater than three months overdue	17	(5)	(5)	7
	576	(526)	(6)	44

As at 31 March 2018	Gross credit risk amount £m	Subject to credit insurance cover £m	Impairment provision made £m	Net credit risk amount £m
Amounts not yet due	552	(523)	(1)	28
One month overdue	34	(26)	-	8
Two months overdue	6	(5)	-	1
Three months overdue	8	(7)	-	1
Greater than three months overdue	18	(6)	(5)	7
	618	(567)	(6)	45

The Group considers its maximum exposure to credit risk with respect to customers at 31 March 2019 to be £44m (2018: £45m), which is the fair value of trade receivables (after impairment provisions) less those that are subject to credit insurance cover as shown in the table above. The other classes of financial assets within trade and other receivables do not contain impaired assets. There is no concentration of credit risk with any particular customers.

Credit risk management is discussed further in Note 24.

(ii) Movements in the provision for impairment of receivables are as follows:

As at 31 March	**2019** £m	2018 £m
At beginning of period	**6**	6
Impairments in the period – continuing operations (Note 2)	**2**	2
Impairments in the period – discontinued operations (Note 7)	**-**	1
Amounts utilised, exchange rate and other movements	**(2)**	(3)
At end of period	**6**	6

Company:

As at 31 March	**2019** £m	2018 £m
Trade receivables	**1**	-
Amounts owed by subsidiary undertakings	**239**	169
Interest owed by subsidiary undertakings	**53**	34
Other taxation	**3**	-
	296	203

Details of the Company's credit risk are not disclosed because the financial statements of TSE disclose such details on a consolidated basis. There was no impact recorded as a result of applying the ECL methodology under IFRS 9.

17. Current tax

	Assets £m	Liabilities £m
2019		
UK corporation tax	**1**	**8**
Overseas taxation	**4**	**3**
	5	**11**
2018		
UK corporation tax	1	11
Overseas taxation	6	4
	7	15

18. Cash and short-term deposits

As at 31 March	2019 £m	2018 £m
Cash at bank and in hand	**118**	94
Short-term deposits	**12**	5
Cash and short-term deposits	**130**	99

The currency and interest exposure of cash and short-term deposits of the Group is as follows:

As at 31 March	2019				2018			
	Cash £m	Short-term deposits £m	Short-term investments £m	Total £m	Cash £m	Short-term deposits £m	Short-term investments £m	Total £m
Sterling	**70**	**12**	**-**	**82**	30	5	-	35
Euros	**11**	**-**	**-**	**11**	37	-	-	37
US Dollars	**18**	**-**	**-**	**18**	9	-	-	9
Other	**19**	**-**	**-**	**19**	18	-	-	18
	118	**12**	**-**	**130**	94	5	-	99
Floating interest rate	**118**	**12**	**-**	**130**	94	5	-	99
Fixed interest rate	**-**	**-**	**-**	**-**	-	-	-	-

Short-term deposits are highly liquid investments with original maturities of three months or less. The weighted average interest rate across both these types of investment was 0.6% (2018: 0.6%). During each of the periods above cash earned interest based on LIBOR or other official local rates.

19. Borrowings

Group:

As at 31 March	2019 £m	2018 £m
Current:		
Inter-group:		
Amounts owed to immediate parent company (Note 35)	**545**	-
Amounts owed to other Group companies (Note 35)	**115**	279
	660	279
External:		
Bank loans	**318**	-
Bank overdrafts	**6**	7
Floating rate guaranteed Loan Notes	**1**	1
Revolving credit facility	**601**	600
Obligations under finance leases	**14**	12
Other loans	**-**	17
	940	637
	1,600	916

As at 31 March	2019 £m	2018 £m
Non-current:		
Inter-group:		
Amounts owed to immediate parent company (Note 35)	**4,476**	**4,060**
Amounts owed to Group companies (Note 35)	**129**	**131**
Redeemable non-cumulative preference shares (Note 35)	**47**	**44**
	4,652	**4,235**
External:		
Bank loans	**1,029**	**1,908**
Obligations under finance leases	**62**	**55**
Capitalisation of transaction costs	**(31)**	**(44)**
	1,060	**1,919**
	5,712	**6,154**
Total borrowings	**7,312**	**7,070**

Interest payable on the above borrowings is included within trade and other payables (Note 20).

(i) The currency and interest exposure of gross borrowings of the Group at the end of the period is as follows:

As at 31 March	2019			2018		
	Fixed rate borrowings £m	Floating rate borrowings £m	Total £m	Fixed rate borrowings £m	Floating rate borrowings £m	Total £m
Sterling	**62**	**3,884**	**3,946**	66	3,694	3,760
Euros	**60**	**3,145**	**3,205**	62	3,019	3,081
US Dollars	**-**	**189**	**189**	-	270	270
Other	**-**	**3**	**3**	-	3	3
Capitalisation of transaction costs	**-**	**(31)**	**(31)**	-	(44)	(44)
	122	**7,190**	**7,312**	128	6,942	7,070

	2019		2018	
	Weighted average effective fixed interest rate %	Weighted average time for which rate is fixed Years	Weighted average effective fixed interest rate %	Weighted average time for which rate is fixed Years
Sterling	**7.1**	**2.9**	7.1	3.8
Euros	**5.0**	**4.9**	5.3	5.5

The majority of floating rate borrowings are bank borrowings bearing interest rates based on EURIBOR or official local rates. Of the total floating rate borrowings of £7,190m (2018: £6,942m), £nil (2018: £984m) has been converted into fixed rates with interest rate swaps, with contracts covering a period less than 1 year. Interest rate risk management is discussed further in Note 24.

The weighted average interest rate on current borrowings was 3.47% (2018: 3.94%) and on non-current borrowings was 5.41% (2018: 4.95%).

(ii) The maturity of borrowings is as follows:

As at 31 March	2019 £m	2018 £m
In one year or less or on demand	**1,603**	920
Between one and two years	**451**	540
Between two and three years	**5,077**	801
Between three and four years	**8**	4,660
Between four and five years	**136**	6
More than five years	**101**	221
	7,376	7,148
Less: future finance charges on finance leases	**(17)**	(15)
Less: capitalisation of transaction costs	**(31)**	(44)
Less: future finance charges on preference shares	**(16)**	(19)
	7,312	7,070
Analysed as:		
Current liabilities	**1,600**	916
Non-current liabilities	**5,712**	6,154

Amounts payable under finance leases are as follows:

	Minimum lease payments		Present value of minimum lease payments	
	2019 £m	2018 £m	**2019** £m	2018 £m
Not later than one year	**18**	16	**14**	12
Later than one year but not more than five years	**39**	39	**30**	31
More than five years	**36**	27	**32**	24
	93	82	**76**	67
Less: future finance charges on finance leases	**(17)**	(15)	**-**	-
Present value of lease obligations	**76**	67	**76**	67

(iii) The maturity of undrawn committed borrowing facilities of the Group is as follows:

As at 31 March	2019 £m	2018 £m
Between one and two years	**100**	-
More than two years	**-**	100

The Group's senior facility limits the amount of other uncommitted, unsecured credit facilities to £430m (2018: £430m) with a sub-limit of £55m (2018: £55m) for overdrafts, bill discounting, financial guarantees and other debt classed as such on the balance sheet.

(iv) The majority of the external borrowings of the Group are accounted for by the SFA which was successfully refinanced in October 2014. The transaction costs of £72m arising from the refinancing have been capitalised and are amortised over the term of the loan. The SFA is secured by guarantees and debentures granted by material subsidiaries of TSE (other than Tata Steel Nederland B.V. ('TSN') and its subsidiaries) and by a share pledge over the shares in TSN. The SFA has a financial covenant which sets an annual maximum capital expenditure level. The SFA comprises:

- A - a bullet term loan facility of €370m for five years (matures on 28 October 2019);
- B1 - an amortising term loan facility of €1,500m for seven years (matures on 28 October 2021. Amortisation starts in April 2020;
- an amortising term loan facility of US$379.5m for seven years (matures on 28 October 2021. Amortisation starts in April B2 - 2020; and
- B2 - a revolving credit facility of £700m for six years (matures on 28 October 2020). This facility may be extended by a further year if certain conditions are satisfied.

On 31 May 2018 TSGH infused a short term loan of €635m at Euribor +3.58% into TSE to prepay €524m and USD132m against Facility B1 and B2 respectively in the SFA. This was funded via a €635m loan from TSE's immediate parent company.

The SFA term loans are denominated in euros and US dollars. However, 100% of the proceeds received in US dollars have been hedged into euros. The refinancing of the SFA in October 2014 was accompanied by a €800m subordinated loan injection into TSE from TSGH. The balance on the term loan tranches in the currency of their denomination remains unchanged from the prior year. In addition, £601m (31 March 2018: £600m) of the revolving credit facility was drawn down at 31 March 2019.

Company:

As at 31 March	2019 £m	2018 £m
Current:		
Inter-group:		
Amounts owed to immediate parent company	**545**	-
Amounts owed to other Group companies	**115**	279
	660	279

As at 31 March	2019 £m	2018 £m
Non-current:		
Inter-group:		
Redeemable non-cumulative preference shares	**47**	44
Amounts owed to immediate parent company	**3,660**	3,290
	3,707	3,334

Redeemable non-cumulative preference shares of £63m were issued in 2012 at an issue price of £1 per share. The shares have a 20 year term and can be redeemed at any point between 1 July 2022 and 30 June 2032. The shares attract a non-cumulative 3.5% dividend, payable each year if there are sufficient distributable reserves available. The shares have been recognised at £47m at 31 March 2019 (2018: £44m), consisting of an initial fair value of £31m and accrued effective interest of £16m.

As at 31 March 2019, the total amount outstanding with TSGH, including principal and rolled interest, is £4,205m (2018: £3,290m). On the current element of £545m (2018: nil) interest is charged at LIBOR + 3.58%. This loan balance is due for repayment in May 2019. On the non-current portion of £3,660m (2018: £3,290m) interest is charged at LIBOR +5% and is rolled into the loan on a 6 monthly basis. This balance is due for repayment in December 2021.

20. Trade and other payables

Group:

As at 31 March	2019 £m	2018 £m
Trade payables	801	810
Amounts owed to ultimate Parent company (Note 35)	1	1
Amounts owed to other Group companies (Note 35)	1,046	970
Amounts owed to associates (Note 35)	3	2
Other taxation and social security	59	63
Interest payable to immediate parent company (Note 35)	54	34
Interest payable to other Group companies (Note 35)	7	9
Interest payable	6	2
Capital expenditure creditors	157	144
Derivative financial instruments (Note 24)	23	38
Advances from customers	10	8
Other payables	353	342
	2,520	2,423

Other payables include amounts provided in respect of insurances, holiday pay, other employment costs and sundry other items.

Company:

As at 31 March	2019 £m	2018 £m
Trade creditors	28	28
Other taxation and social security	-	19
Interest payable to immediate parent company	48	29
Interest payable to other Group companies	3	5
Amounts owed to subsidiary undertakings	37	64
	116	145

21. Pensions and post-retirement benefits

Defined contribution schemes

The Group participates in a number of defined contribution plans on behalf of relevant personnel. Any expense recognised in relation to these schemes represents the value of contributions payable during the period by the Group at rates specified by the rules of those plans. The only amounts included in the balance sheet are those relating to the prior month's contributions that were not due to be paid until after the end of the reporting period. The total cost charged to the income statement in 2019 amounted to £126m (2018: £118m). Of the total cost of £126m, £77m (2018: £70m) related to payments to the Stichting Pensioenfonds Hoogovens ('SPH') Pension Scheme which is the main scheme for historic and present employees in the Netherlands.

Defined benefit schemes

The Group operates a number of defined benefit pension and post-retirement schemes. Benefits offered by these schemes are largely based on pensionable pay and years of service at retirement. With the exception of certain unfunded arrangements, the assets of these schemes are held in administered funds that are legally separated from the Group. For those pension schemes set up under a trust, the trustees are required by law to act in the best interests of the schemes beneficiaries in accordance with the scheme rules and relevant pension legislation. The trustees are generally responsible for the investment policy with regard to the assets of the fund, after consulting with the sponsoring employer.

The Group accounts for all pension and post-retirement defined benefit arrangements using IAS 19 *'Employee Benefits'*, with independent actuaries being used to calculate the costs, assets and liabilities to be recognised in relation to these schemes. The present value of the defined benefit obligation, the current service cost and past service costs are calculated by these actuaries using the projected unit credit method. However, the ongoing funding arrangements of each scheme, in place to meet their long-term pension liabilities, are governed by the individual scheme documentation and national legislation. The accounting and disclosure requirements of IAS 19 do not affect these funding arrangements.

The principal defined benefit pension scheme of the Group at 31 March 2019 is the BSPS, which is the main scheme for historic and present employees based in the UK.

BSPS

In line with the conditions agreed as part of a Regulated Apportionment Arrangement ('RAA') on 11 September 2017, assets and liabilities in respect of approximately 80,000 electing members of the BSPS were transferred from the old scheme on 28 March 2018 ahead of that scheme entering a Pension Protection Fund ('PPF') assessment period the following day. The new scheme (which retains the title 'British Steel Pension Scheme') is sponsored by TSUK. Although TSUK has a legal obligation to fund any future deficit, a key condition of the new BSPS going forward was that it was sufficiently well funded to meet the scheme's modified liabilities on a self-sufficiency basis with a buffer to cover residual risks. With the assets that were transferred, the new scheme is well positioned to pay benefits securely on a low risk basis without recourse to TSUK. This risk includes economic risks (such as interest rate risk and inflation risk), demographic risks (for example members living longer than expected), and legal risks (for example changes in legislation that may increase liabilities). TSUK has worked with the Trustee to develop and implement an Integrated Risk Management ('IRM') framework to manage these risks. The framework provides ongoing monitoring of the key investment, funding and covenant risks facing the scheme and tracks progress against the scheme's journey plan and target. Measures taken by the Trustee to manage risk include the use of asset-liability matching techniques to reduce interest rate risk, and investment in assets that are expected to be correlated to future inflation in the longer term to mitigate inflation risk. In particular, the scheme's investment policy has regard for the maturity and nature of the scheme's liabilities and seeks to match a large part of the scheme's liabilities with secure bonds, whilst achieving a higher long term return on a small proportion of equity and other investments. However, the scheme's interest rate risk is hedged on a long term funding basis linked to gilts whereas AA corporate bonds are implicit in the IAS 19 discount rate and so there is some mismatching risk to the TSE financial statements should yields on gilts and corporate bonds diverge.

The BSPS and Open Trustee Limited ('OTL'), acting on behalf of the members who transferred to the PPF, hold an anti-embarrassment non-controlling interest in TSUK agreed as part of the RAA. The total non-controlling interest in TSUK reduced from 33.33% at 31 March 2018 (split BSPS 27.70%; OTL 5.63%) to 0.32% at 31 March 2019 (split BSPS 0.27%; OTL 0.05%) due to an equity issuance of £102.5m made by TSUK on 20 March 2019 to strengthen TSUK's financial position. No value has been included in the BSPS's assets at 31 March 2019 (2018: £nil) for its interest in TSUK as the estimated equity value of TSUK is zero (2018: zero).

At 31 March 2019 the new scheme had an IAS 19 surplus of £2,205m (2018: £2,229m). In accordance with IFRIC 14, the company has recognised 100% (2018: 100%) of the surplus as it has an unconditional right to a refund of the surplus. The new scheme is fully funded on a low-risk technical provisions ('TP') basis and TSUK is working with the Trustee to explore options to increase security for members and to work towards an ultimate winding up of the scheme in which all benefits are fully secured. The 31 March 2018 valuation was agreed between TSUK and the BSPS Trustee on 11 April 2019. This was a surplus of £668m on a TP (more prudent) basis equating to a funding ratio of 106.3%. The agreed Schedule of Contributions confirmed that neither ordinary nor deficit recovery contributions are due from the Company.

The weighted average duration of the scheme's liabilities at 31 March 2019 was 15 years (2018: 15 years). On 26 October 2018 the High Court ruled that UK pension schemes would be required to equalise guaranteed minimum pensions ('GMP'). The ruling also provided guidance on how this equalisation should be undertaken. Following this ruling, TSE recognised in the year an increase of £50m to the BSPS liabilities in respect of the estimated impact of this equalisation with the related charge recognised in OCI.

In the previous year the income statement included a net credit of £1,640m comprising a past service credit of £1,828m in respect of members who chose to transfer to the new BSPS due to the less valuable benefit structure in the new scheme compared to the old scheme, a settlement charge of £158m for those members who opted to join the PPF, costs of £21m in respect of legal, advisory and communication expenditure for the RAA process and for the formation of the new scheme, and £9m for the PPF assessment of member benefits who opted to transfer to the PPF. The net credit of £1,640m was recognised in the financial statements as an exceptional item.

In the current year the income statement includes a charge of £4m in relation to costs associated with the RAA.

Actuarial assumptions

A range of assumptions must be used to determine the IAS 19 amounts and the values to be included in the balance sheet and income statement can vary significantly with only small changes in these assumptions. Furthermore the actuarial assumptions used may vary according to the country in which the plans are situated.

The key assumptions applied at the end of the reporting period for the purposes of the actuarial valuations were as follows:

2019	BSPS %	Other %
Salary growth[1]	n/a	1.00 to 2.00
Pension increases[2]	2.20	1.30 to 1.75
Discount rate	2.30	0.80 to 3.95
Inflation	3.20	1.00 to 3.00

1 The BSPS is closed to future accrual.
2 Where applicable a CPI assumption of 2.20% has been applied within the BSPS.

2018	BSPS %	Other %
Salary growth [3]	n/a	1.00 to 2.00
Pension increases[4]	2.10	1.75
Discount rate	2.60	1.37 to 4.10
Inflation	3.10	1.00 to 3.00

3 The BSPS is closed to future accrual.
4 Where applicable a CPI assumption of 2.10% was applied within the BSPS.

The discount rate is set with reference to the current rate of return on AA rated corporate bonds (excluding government backed bonds) of equivalent currency and term to the scheme liabilities. Projected inflation rate and pension increases are long-term predictions based mainly on the yield gap between long-term fixed interest and index-linked gilts.

Demographic assumptions are set having regard to the latest trends in life expectancy, plan experience and other relevant data, including externally published actuarial information within each national jurisdiction. The assumptions are reviewed and updated as necessary as part of the periodic actuarial funding valuations of the individual pension and post-retirement plans. For the BSPS the liability calculations as at 31 March 2019 use the Self-Administered Pension Schemes 2 (SAPS 2) base tables, S2NMA/S2DFA with the 2015 CMI projections with a 1.50% pa long-term trend applied from 2007 to 2016 (adjusted by a multiplier of 1.15 for males and 1.21 for females). In addition, future mortality improvements are allowed for in line with the 2018 CMI Projections with a long-term improvement trend of 1% per annum and a smoothing parameter of 7.0. This indicates that today's 65 year old male member is expected to live on average to approximately 86 years of age and a male member reaching age 65 in 15 years time is then expected to live on average to 86 years of age.

Sensitivities

Significant actuarial assumptions for the determination of the defined benefit obligation are discount rate, inflation, salary growth and mortality. The sensitivity analysis below for the BSPS has been determined based on reasonable possible changes of the assumptions occurring at the end of the reporting period:

Assumption	Change in assumption	Impact on scheme liabilities
Discount rate	Increase/decrease by 10bps	Decrease/increase by 1.4%
Inflation	Increase/decrease by 10bps	Increase/decrease by 1.0%
Mortality	1 year increase/decrease in life expectancy	Increase/decrease by 3.0%

Sensitivities for the BSPS have been provided as it is a material scheme.

The above sensitivities may not be representative of the actual change in the defined benefit obligation as it is unlikely that the change in assumptions would occur in isolation of one another as some of the assumptions may be correlated. In presenting the above sensitivity analysis, the present value of the defined benefit obligation has been calculated using the projected unit credit at the end of the reporting period, which is the same as that applied in calculating the defined benefit liability recognised in the balance sheet.

Income statement costs

Under IAS 19, costs in relation to pension and post-retirement plans mainly arise as follows:

- The current service cost is the actuarially determined present value of the pension benefits earned by employees in the current period. No charge or credit is reflected here for any surplus or deficit in the scheme and so the cost is unrelated to whether, or how, the scheme is funded.
- Net interest cost/(income) on the liability or asset recognised in the balance sheet.

These items are treated as a net operating cost in the income statement within employment costs.

Variations from expected costs, arising from the experience of the plans or changes in actuarial assumptions, are recognised immediately in the statement of other comprehensive income. Examples of such variations are differences between the discount rate used for calculating the return on scheme assets (credited to the income statement) and the actual return, the re-measurement of scheme liabilities to reflect changes in discount rates, changes in demographic assumptions such as using updated mortality tables, or the effect of more employees leaving service than forecast.

Income statement pension costs arose as follows:

2019	**BSPS £m**	**SPH £m**	**Other £m**	**Total £m**
Current service cost	15	-	3	**18**
Cost for setting up the new BSPS scheme	2	-	-	**2**
Net interest (income)/cost	(58)	-	3	**(55)**
Defined benefit schemes	(41)	-	6	**(35)**
Defined contribution schemes	44	77	5	**126**
Total charge for the period	3	77	11	**91**

2018	**BSPS £m**	**SPH £m**	**Other £m**	**Total £m**
Current service cost	11	-	4	**15**
Costs in respect of the RAA	19	-	-	**19**
Cost for setting up the new BSPS scheme	2	-	-	**2**
Net interest (income)/cost	(12)	-	2	**(10)**
Past service credit	(1,828)	-	(2)	**(1,830)**
Settlement costs	158	-	-	**158**
Defined benefit schemes	(1,650)	-	4	**(1,646)**
Defined contribution schemes	42	70	6	**118**
Total charge for the period	(1,608)	70	10	**(1,528)**

Total pension costs disclosed above and included in the income statement are as follows:

	2019 £m	2018 £m
Pension costs (Note 4)	**89**	121
Exceptional pension items (Note 4)	**-**	(1,649)
Exceptional costs for setting up the new BSPS scheme borne by the scheme (Note 4)	**2**	-
Exceptional costs for setting up the new BSPS scheme borne directly by the Company (Note 4)	**2**	-
Total charge/(credit) for the period	**93**	(1,528)

Plan assets

The asset classes include national and international stocks, fixed income government and non-government securities and real estate. The majority of the reported plan assets are located in UK and EU. The pension funds invest in diversified asset classes to maximise returns while reducing volatility. The percentage of total plan assets for each category of investment was as follows:

2019	BSPS %	Other %
Quoted:		
Equities – UK Entities	0.6	-
Equities – Non-UK Entities	7.0	52.2
Bonds – Fixed Rate	50.1	23.2
Bonds – Index Linked	28.3	-
Other	0.3	3.4
	86.3	**78.8**
Unquoted:		
Real estate	12.5	7.5
Derivatives	(1.0)	-
Cash and cash equivalents	1.4	10.5
Other	0.8	3.2
	13.7	**21.2**
Total	**100.0**	**100.0**

2018	BSPS %	Other %
Quoted:		
Equities – UK Entities	0.7	-
Equities – Non-UK Entities	7.3	49.0
Bonds – Fixed Rate	45.7	27.6
Bonds – Index Linked	32.0	-
Derivatives	0.2	-
Other	-	4.6
	85.9	**81.2**
Unquoted:		
Real estate	11.5	7.1
Derivatives	(0.7)	-
Cash and cash equivalents	0.9	11.7
Other	2.4	-
	14.1	**18.8**
Total	**100.0**	**100.0**

Balance sheet measurement

In determining the amounts to be recognised in the balance sheet the following approach has been adopted:

• Pension scheme assets are measured at fair value (for example for quoted securities this is the bid-market value on the relevant public exchange).

• Pension liabilities include future benefits that will be paid to pensioners and deferred pensioners, and accrued benefits which will be paid in the future for members in service taking into account projected earnings. As noted above, the pension liabilities are discounted with reference to the current rate of return on AA rated corporate bonds of equivalent currency and term to the pension liability.

Amounts recognised in the balance sheet arose as follows:

2019	**BSPS £m**	**Other £m**	**Total £m**
Fair value of plan assets	10,598	95	**10,693**
Present value of obligation	(8,393)	(220)	**(8,613)**
Defined benefit asset/(liability) at end of period	2,205	(125)	**2,080**
Disclosed as:			
Defined benefit asset	2,205	-	**2,205**
Defined benefit liability – current	-	(6)	**(6)**
Defined benefit liability – non-current	-	(119)	**(119)**
Arising from:			
Funded schemes	2,205	(50)	**2,155**
Unfunded schemes	-	(75)	**(75)**

2018	BSPS £m	Other £m	Total £m
Fair value of plan assets	11,205	92	**11,297**
Present value of obligation	(8,976)	(218)	**(9,194)**
Defined benefit asset/(liability) at end of period	2,229	(126)	**2,103**
Disclosed as:			
Defined benefit asset	2,229	-	**2,229**
Defined benefit liability – current	-	(3)	**(3)**
Defined benefit liability – non-current	-	(123)	**(123)**
Arising from:			
Funded schemes	2,229	(44)	**2,185**
Unfunded schemes	-	(82)	**(82)**

The movements in the present value of plan assets and defined benefit obligations in 2019 and 2018 were as follows:

2019	**BSPS £m**	**Other £m**	**Total £m**
Plan assets:			
As at 1 April 2018	11,205	92	**11,297**
Interest income on plan assets	284	3	**287**
Return on plan assets greater/(less than) than the discount rate	264	(3)	**261**
Contributions from the employer	-	5	**5**
Benefits paid	(1,155)	(8)	**(1,163)**
Exchange rate movements	-	6	**6**
As at 31 March 2019	10,598	95	**10,693**
Defined benefit obligations:			
As at 1 April 2018	8,976	218	**9,194**
Current service cost	15	3	**18**
Costs of setting up new BSPS scheme	2	-	**2**
Interest cost on the defined benefit obligation	226	6	**232**
Actuarial loss due to actuarial experience	47	3	**50**
Actuarial loss due to financial assumption changes	411	6	**417**
Actuarial gain due to demographic assumption changes	(129)	-	**(129)**
Benefits paid	(1,155)	(11)	**(1,166)**
Exchange rate movements	-	8	**8**
Disposal of group company	-	(13)	**(13)**
As at 31 March 2019	8,393	220	**8,613**

Benefits paid in the year included £647m (2018: £2,120m) in respect of transfers out of the BSPS. The benefits paid out of the BSPS in the year and in 2018 are significantly higher than usual due to an increased number of members deciding to transfer out of the scheme during the RAA period.

Included within other schemes above are post-retirement medical and similar net obligations of £6m (2018: £6m).

2018	BSPS £m	Other £m	Total £m
Plan assets:			
As at 1 April 2017	15,032	108	**15,140**
Interest income on plan assets	358	3	**361**
Return on plan assets (less than)/greater than the discount rate	(207)	5	**(202)**
Contributions from the employer	569	3	**572**
Benefits paid	(2,730)	(11)	**(2,741)**
Exchange rate movements	-	(12)	**(12)**
Settlements	(1,817)	-	**(1,817)**
Curtailments	-	(4)	**(4)**
As at 31 March 2018	11,205	92	**11,297**
Defined benefit obligations:			
As at 1 April 2017	14,816	242	**15,058**
Current service cost	11	4	**15**
Costs in respect of RAA	19	-	**19**
Costs of setting up new BSPS scheme	2	-	**2**
Interest cost on the defined benefit obligation	346	5	**351**
Past service cost - plan amendments	(1,828)	(2)	**(1,830)**
Actuarial loss due to actuarial experience	472	2	**474**
Actuarial gain due to financial assumption changes	(473)	(1)	**(474)**
Benefits paid	(2,730)	(14)	**(2,744)**
Exchange rate movements	-	(14)	**(14)**
Settlements	(1,659)	-	**(1,659)**
Curtailments	-	(4)	**(4)**
As at 31 March 2018	8,976	218	**9,194**

Actuarial losses recorded in the statement of comprehensive income for the period were £77m (2018: losses of £202m).

22. Provisions for liabilities and charges

	Rationalisation costs (i) £m	Insurance (ii) £m	Employee benefits (iii) £m	Other (iv), (v) £m	**Total 2019** £m	Total 2018 £m
At beginning of period	32	93	58	107	**290**	292
Charged to income statement	9	8	6	35	**58**	52
Released to income statement						
Continuing operations	(2)	(23)	(6)	(25)	**(56)**	(28)
Discontinued operations	-	-	-	-	**-**	(10)
Utilised in period						
Continuing operations	(8)	(5)	-	(15)	**(28)**	(15)
Discontinued operations	-	-	-	-	**-**	(2)
Disposal of Group undertakings	-	-	-	(1)	**(1)**	-
Exchange rate movements	-	-	-	(2)	**(2)**	1
At end of period	**31**	**73**	**58**	**99**	**261**	290
Analysed as:						
Current liabilities					**47**	51
Non-current liabilities					**214**	239

(i) Rationalisation costs include redundancy provisions as follows:

	2019 £m	2018 £m
At beginning of period	**1**	3
Charged to income statement	**5**	1
Utilised during the period	**(3)**	(3)
At end of period	**3**	1

	2019 £m	2018 £m
Other rationalisation provisions arise as follows:		
Onerous lease payments relating to unutilised premises	**15**	20
Environmental and other remediation costs at sites subject to restructuring/closure	**9**	9
Other	**4**	2
	28	31

Although the precise timing in respect of utilising the redundancy provisions is not known, the majority is expected to be incurred within one year. At 31 March 2019 the rationalisation provision included £15m (2018: £20m) in respect of onerous leases on a discounted basis. This provision would have amounted to £15m (2018: £21m) on an undiscounted basis. The outstanding term on these leases ranges between 1 and 14 years.

(ii) The insurance provisions currently held by the Group cover its historical liability risks, including those covered by its captive insurance company (Crucible Insurance Company Limited) in respect of its retrospective hearing impairment policy and those for which it is now responsible for under its current insurance arrangements. The provisions include a suitable amount in respect of its known outstanding claims and an appropriate amount in respect of liabilities that have been incurred but not yet reported. The provisions are subject to regular review and are adjusted as appropriate. The value of the final insurance settlements is uncertain and so is the timing of the expenditure.

(iii) Provisions for employee benefits include long-term benefits such as long service and sabbatical leave, disability benefits and sick leave. All items are subject to independent actuarial assessments.

(iv) Other provisions include environmental provisions of £28m (2018: £29m), early retirement provisions of £23m (2018: £22m), product warranty claims of £7m (2018: £7m) and potential customer claims of £20m (2018: £26m). The timing in respect of utilising these provisions is uncertain.

(v) During the year a net charge of £5m was included in Other provisions in respect of potential customer claims. This charge has been disclosed as an exceptional item within the income statement (see Note 2).

23. Other non-current liabilities

As at 31 March	2019 £m	2018 £m
Other creditors	**9**	14
	9	14

As at 31 March	2019 £m	2018 £m
An analysis of other creditors by currency is set out below:		
Sterling	**7**	12
Euros	**2**	2
	9	14

Other creditors, which predominantly relate to long-term insurance liabilities, are due for repayment within five years and are not subject to interest.

24. Financial instruments and risk management

(i) Capital risk management
The Group manages its capital with the aim of ensuring that the entities in the Group are able to continue as a going concern. Further details are included in the basis of preparation on page 28. The Group's overall category risk strategy remains unchanged from 2018. The capital structure of the Group consists of net debt, which includes the borrowings disclosed in Note 19, after deducting cash and cash equivalents, and equity attributable to equity holders of the parent, comprising issued capital, reserves and retained earnings. Net debt has increased in the year to £7,180m at 31 March 2019 from £6,971m at 31 March 2018 (note 32) due to an increase of £798m to inter-group debt offset by a reduction of £556m to external debt and an increase of £31m to cash and short term deposits.

(ii) The carrying amounts of the Group's financial assets and financial liabilities (excluding derivative assets and liabilities) are:

As at 31 March	2019 £m	2018 £m
Financial assets:		
Loans and receivables:		
Other investments (Note 12)	**10**	10
Long term receivables (Note 13)	**28**	37
Trade receivables (Note 16)	**570**	612
Other receivables [1] (Note 16)	**110**	112
Cash and short-term deposits (Note 18)	**130**	99
	848	870
Financial liabilities:		
Financial liabilities held at amortised cost:		
Trade and other payables [2] (Note 20)	**(2,429)**	(2,314)
Current borrowings (Note 19)	**(1,600)**	(916)
Non-current borrowings (Note 19)	**(5,712)**	(6,154)
Other non-current liabilities (Note 23)	**(9)**	(14)
	(9,750)	(9,398)
	(8,902)	(8,528)

[1] Excludes derivatives, other taxation and prepayments
[2] Excludes other taxation and social security, derivatives and advances from customers

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 except for current and non-current borrowings. The fair values of these are £1,574m (2018: £900m) and £5,562m (2018: £5,924m) respectively. The fair value of borrowings would be classified as Level 3 within the fair value hierarchy. The fair value is based on discounted cash flows and reflects the credit risk of counterparties.

(iii) Fair value measurements recognised in the balance sheet
The following table categorises the Group's financial instruments held at fair value by the valuation methodology applied in determining this value. Where possible, quoted prices in active markets for identical assets and liabilities are used (Level 1 and this includes the Group's holdings of listed investments). Where such prices are not available, the asset or liability is classified as Level 2, provided all significant inputs to the valuation model used are based on observable market data (this includes the Group's forward currency, commodity contracts and interest rate swaps). The Group's derivative financial assets and liabilities are also categorised as Level 2 and their valuation is based on future cash flows (estimated from observable data such as forward exchange rates and yield curves) which are, where material, discounted at a rate which reflects the credit risk of counterparties. If one or more of the significant inputs to the valuation model is not based on observable market data, the instrument is classified as Level 3.

As at 31 March	2019			
	Level 1 £m	Level 2 £m	Level 3 £m	Total £m
Financial assets at fair value through other comprehensive income:				
Derivative financial assets (Note 16)	-	**20**	-	**20**
Investments (Note 12)	-	-	**14**	**14**
Financial liabilities at fair value through other comprehensive income:				
Derivative financial liabilities (Note 20)	-	**(23)**	-	**(23)**

As at 31 March	2018 Level 1 £m	Level 2 £m	Level 3 £m	Total £m
Financial assets at fair value through other comprehensive income:				
Derivative financial assets (Note 16)	-	9	-	9
Investments (Note 12)	10	-	13	23
	10	9	13	32
Financial liabilities at fair value through other comprehensive income:				
Derivative financial liabilities (Note 20)	-	(38)	-	(38)
	-	(38)	-	(38)

There were no transfers between any of the levels during the periods presented above.

(iv) Financial risk management
The Group uses a variety of financial instruments, including derivatives, to finance its operations and to manage risks arising from those operations. The principal financial risks to which the Group is exposed are those of foreign exchange, commodity, interest rate and liquidity which are largely managed by the centralised Group treasury functions whose activities are governed by policies and procedures approved by the TSE Executive committee. The TSE Treasury committee meet at least quarterly to review activities and to monitor treasury performance against policies.

(a) Market risk: foreign exchange risk and management
At 31 March 2019, the Group had £7,312m (2018: £7,070m) in borrowings, of which £3,174m (2018: £3,037m) net of capitalised transaction costs of £31m (2018: £44m) is denominated in euros, £3,946m (2018: £3,760m) is denominated in sterling, £189m (2018: £270m) is denominated in US dollars, and £3m (2018: £3m) is denominated in other currencies. As described in Note 19, the majority of the Group's borrowings relate to the SFA which are held by TSE's euro-denominated subsidiary company Tata Steel Netherlands Holdings BV ('TSNH'). As at 31 March 2019, to reduce the Group's exposure to foreign exchange risk, all the US dollar borrowings had been covered by a euro short-term forward rate agreement.

It is the Group's policy that substantially all the net currency transaction exposure arising from contracted sales and purchases over an approximate 6-month time horizon is covered by selling or purchasing foreign currency forwards. At 31 March 2019, the Group held forward currency sales of principally Euros and US dollars amounting to £361m (2018: £270m) and purchases of principally Euros, GBP and US dollars amounting to £2,083m (2018: £1,406m).

A 10% appreciation of sterling at 31 March 2019 would increase the Group's net assets by approximately £304m (2018: £296m), increase equity by approximately £304m (2018: £296m) and decrease operating profit by approximately £nil (2018: £nil). This sensitivity analysis has been based on the composition of the Group's financial assets and liabilities at 31 March, excluding trade payables, trade receivables, other non-derivative financial instruments not in net debt and finance lease obligations which do not present a material exposure.

(b) Market risk: commodity risk and management
The Group makes use of commodity futures contracts and options to manage its purchase price risk for certain commodities. Across the Group, forward purchases are also made of zinc, tin and nickel to cover sales contracts with fixed metal prices.

At 31 March 2019, a 10% appreciation of market prices would decrease the Group's equity by approximately £7m (2018: £8m). There was no significant market risk relating to the income statement since the majority of commodity derivatives are treated as cash flow hedges with movements being reflected in equity and the timing and recognition in the income statement would depend on the point at which the underlying hedged transactions were also recognised.

(c) Market risk: interest risk and management
The objective of the Group's interest risk management is to reduce its exposure to the impact of changes in interest rates in the currencies in which debt is borrowed.

Based on the composition of net debt at 31 March 2019, a 100 basis points increase in interest rates over the 12-month period would increase the Group's net finance expense by approximately £72m (2018: £72m) and decrease equity by approximately £54m (2018: £7m).

(d) Credit risk
Cash deposits, trade receivables and other financial instruments give rise to credit risk for the Group arising from the amounts and obligations due from counter-parties. The credit risk on short-term deposits is managed by limiting the aggregate amounts and duration of exposure to any one counter party, depending on its credit rating and other credit information, and by regular reviews of these ratings. The possibility of material loss arising in the event of non-performance is considered unlikely.

Individual operating units are responsible for controlling their own credit risk arising from the Group's normal commercial operations, although they must act within a series of centrally agreed guidelines. Trade receivables are, where appropriate, subject to a credit insurance programme, and regular reviews are undertaken of exposure to key customers and those where known risks have arisen or persist. Any impairment to the recoverability of debtors is reflected in the income statement.

Credit risk also arises from the possible failure of counter-parties to meet their obligations under currency and commodity hedging instruments, and interest rate swaps. However, counter parties are established banks and financial institutions with high credit ratings and the Group continually monitors each institution's credit quality and limits as a matter of policy the amount of credit exposure to any one of them. The Group's theoretical risk is the cost of replacement at current market prices of these transactions in the event of default by counter-parties. The Group believes that the risk of incurring such losses is remote and underlying principal amounts are not at risk.

(e) Liquidity risk

The management of liquidity risk is co-ordinated and controlled centrally by the Group's treasury operations. Liquidity risk is managed by maintaining access to a level of committed and uncommitted borrowing facilities to ensure liquidity is appropriate to forecasted cash flows to satisfy general corporate or working capital requirements. As shown in Note 19(iii), the total undrawn committed borrowing facilities at 31 March 2019 is £100m (2018: £100m).

The TSE Board and Executive committee review the Group's liquidity and any associated risk monthly, which includes a review of the Group's funding position and cash flow forecasts.

The following table is a maturity analysis of the anticipated contractual cash flows including interest payable for the Group's derivative and non-derivative financial liabilities on an undiscounted basis, which therefore differs from both the carrying value and fair value. Floating rate interest is estimated using the prevailing interest rate at the end of the reporting period. Cash flows in foreign currencies are translated using the period end spot rates at 31 March 2019.

As at 31 March	2019			
	Contractual cashflows £m	Less than 1 year £m	Between 1 – 5 years £m	More than 5 years £m
Non-derivative financial liabilities:				
Trade and other payables [1]	(2,429)	(2,429)	-	-
Floating rate guaranteed loan notes	(1)	(1)	-	-
Finance lease obligations	(92)	(18)	(38)	(36)
Bank and other loans	(8,102)	(1,633)	(6,406)	(63)
Other creditors	(9)	(9)	-	-
Bank overdraft	(6)	(6)	-	-
	(10,639)	(4,096)	(6,444)	(99)
Derivative financial liabilities:				
Foreign currency contracts:				
Payables	(2,459)	(2,459)	-	-
Receivables	2,444	2,444	-	-
Commodity contracts	10	10	-	-
Forward rate agreement				
Payables	(186)	(186)	-	-
Receivables	188	188	-	-
	(3)	(3)	-	-
Total financial liabilities	(10,642)	(4,099)	(6,444)	(99)

[1] Excludes other taxation and social security, derivatives and advances from customers

As at 31 March	2018			
	Contractual cashflows	Less than 1 year	Between 1 – 5 years	More than 5 years
	£m	£m	£m	£m
Non-derivative financial liabilities:				
Trade and other payables [1]	(2,314)	(2,314)	-	-
Floating rate guaranteed loan notes	(1)	(1)	-	-
Finance lease obligations	(82)	(16)	(39)	(27)
Bank and other loans	(8,192)	(965)	(7,028)	(199)
Bank overdraft	(7)	(7)	-	-
Other creditors	(7)	-	(7)	-
	(10,603)	(3,303)	(7,074)	(226)
Derivative financial liabilities:				
Foreign currency contracts:				
Payables	(1,704)	(1,704)	-	-
Receivables	1,680	1,680	-	-
Commodity contracts	2	2	-	-
Forward rate agreement				
Payables	(273)	(273)	-	-
Receivables	266	266	-	-
	(29)	(29)	-	-
Total financial liabilities	(10,632)	(3,332)	(7,074)	(226)

[1] Excludes other taxation and social security, derivatives and advances from customers

(v) Derivative financial instruments

Derivative financial instruments used by the Group include forward exchange contracts, commodity contracts and interest rate swaps. These financial instruments are utilised to hedge significant future transactions and cash flows, and, in most cases, these are subject to hedge accounting under IFRS 9. The Group does not hold or issue derivative financial instruments for trading purposes. All transactions in derivative financial instruments are undertaken to manage risks arising from underlying business activities.

The following table sets out the fair values of derivatives held by the Group at the end of the reporting period:

	2019		2018	
	Assets	**Liabilities**	Assets	Liabilities
	£m	£m	£m	£m
Non-current:				
Interest rate swaps	-	-	-	-
	-	-	-	-
Current:				
Interest rate swaps	-	-	-	-
Foreign currency contracts	**9**	**(23)**	5	(36)
Commodity contracts	**10**	**-**	4	(2)
Forward rate agreements	**1**	-	-	-
	20	**(23)**	9	(38)
	20	**(23)**	9	(38)

The fair value of derivative financial instruments that were designated as cash flow hedges at the end of the reporting period were:

	Foreign currency contracts £m	Commodity contracts £m	Interest rate swap £m	Taxation £m	2019 £m
Cash flow hedge reserve net of taxation at beginning of period	(8)	4	-	1	(3)
Fair value recognised	13	6	-	(5)	14
Non-controlling interest movement	-	(1)	-	-	(1)
Cash flow hedge reserve net of taxation at end of period	5	9	-	(4)	10

	Foreign currency contracts £m	Commodity contracts £m	Interest rate swap £m	Taxation £m	2018 £m
Cash flow hedge reserve net of taxation at beginning of period	14	-	(2)	(3)	9
Fair value recognised	(19)	4	2	4	(9)
Non-controlling interest movement	(3)	-	-	-	(3)
Cash flow hedge reserve net of taxation at end of period	(8)	4	-	1	(3)

At the end of the reporting period the total notional amount of outstanding foreign currency, commodity contracts and interest rate swaps that the Group has committed to are as follows:

	2019 £m	2018 £m
Foreign currency contracts	2,415	1,678
Commodity futures and options	83	106
Interest rate swaps	-	984
Forward rate agreements	189	270

There was no significant ineffectiveness on cash flow hedges recognised in the income statement in 2019 (2018: £nil).

25. Deferred income

	Grants relating to revenue £m	Grants relating to property, plant & equipment £m	2019 £m	2018 £m
At 1 April 2018	1	9	10	14
Exchange rate movements	-	(1)	(1)	(1)
Released to income statement	-	(1)	(1)	(3)
Disposal of group undertaking	-	(1)	(1)	-
At 31 March 2019	1	6	7	10

26. Called up share capital

Group and Company:

The share capital of the Company is shown below as at 31 March:

Authorised	2019 £m	2018 £m
5,000,000,000 ordinary shares of £1 each	5,000	5,000

Allotted, called up and fully paid	2019 £m	2018 £m
4,138,894,347 (2018: 4,138,894,347) ordinary shares of £1 each	4,139	4,139

The Company has one class of ordinary shares which carry no right to fixed income.

Company reconciliation of share capital and equity:

	Ordinary share capital £m	Profit and loss reserves £m	Total £m
At 1 April 2018	4,139	(6,061)	**(1,922)**
Profit for the year	-	292	**292**
At 31 March 2019	**4,139**	**(5,769)**	**(1,630)**

	Ordinary share capital £m	Profit and loss reserves £m	Total £m
At 1 April 2017	4,139	(6,112)	(1,973)
Profit for the year	-	51	51
At 31 March 2018	4,139	(6,061)	(1,922)

27. Non-controlling interests

Summarised financial information in respect of each of the Group's subsidiaries that have material non-controlling interests is set out below. The summarised financial information below represents amounts before intragroup eliminations.

On 11 September 2017, as part of the RAA, a 33.33% non-controlling interest in TSUK was issued to the BSPS Trustee and Open Trustee Limited ('OTL'), acting on behalf of BSPS members who transferred to the Pension Protection Fund ('PPF'), split BSPS 27.70% and OTL 5.63%. At 11 September 2017 the net liability position of TSUK was £2,255m and resulted in a non-controlling interest of £752m.

On 20 March 2019 TSUK made an equity issuance of £102.5m to Corus Group Limited to strengthen TSUK's financial position. This reduced the non-controlling interest to 0.32% at 31 March 2019 (split BSPS 0.27%; OTL 0.05%) thus resulting in a movement of £164m on the non-controlling interest. For further details see note 21.

TSUK:

(i) Income statement summary

	2019 £m	2018 £m
Revenue	**2,407**	2,403
Operating costs	**(2,568)**	(805)
Operating loss	**(161)**	1,598
Finance income	**5**	29
Finance costs	**(219)**	(203)
Income tax expense	**(10)**	(42)
Profit from disposal of discontinued operation	**-**	2
Loss for the year	**(385)**	1,384
(Loss)/profit attributable to owners of the Company	**(257)**	879
(Loss)/profit attributable to non-controlling interests	**(128)**	505

(ii) Statement of comprehensive (loss)/profit summary

	2019 £m	2018 £m
Total comprehensive (loss)/profit for the year	**(437)**	1,214
Total comprehensive (loss)/profit attributable to owners of the Company	**(292)**	492
Total comprehensive (loss)/profit attributable to non-controlling interests	**(145)**	722

(iii) Balance sheet summary

	2019 £m	2018 £m
Non-current assets	**3,632**	3,547
Current assets	**775**	781
Current liabilities	**(2,659)**	(2,416)
Non-current liabilities	**(2,139)**	(2,000)
Net liabilities	**(391)**	(88)
Equity attributable to owners of the Company	**(391)**	(58)
Non-controlling interests	**-**	(30)

(v) Statement of cash flows summary

	2019 £m	2018 £m
Net cash outflow from operating activities	**14**	(556)
Net cash outflow from investing activities	**(157)**	(140)
Net cash inflow from financing activities	**185**	665
Net cash inflow	**42**	(31)

28. Future capital expenditure

	2019 £m	2018 £m
Contracted but not provided for	**296**	252
Authorised but contracts not yet placed	**143**	302

At the end of the period there was £10m (2018: £15m) of future expenditure planned in relation to intangible assets.

29. Operating leases

	2019 £m	2018 £m
Future minimum lease payments for the Group at the end of the period are:		
Not later than one year	**85**	64
Later than one year and not later than five	**144**	115
More than five years	**42**	37
	271	216

Of the total operating lease payments, £61m (2018: £81m) relates to the time charter hire of 3 (2018: 4) vessels by the Group's central supplies and transport function. The lease period for these assets ranges from 2 to 5 years.

This includes the time charter hire of one vessel that has been novated to Proco as part of its provision of a full freight service to TSE on the basis that the menu pricing mechanism is designed to recover all costs incurred by Proco in the provision of that service to TSE, and TSE therefore effectively retains the liabilities under the lease contracts.

TSE has entered into an arrangement that includes the sub-letting of 2 (2018: 2) time charter hire vessels, representing £28m (2018: £39m) of the total operating lease payments above. The total of future minimum sublease payments expected to be received under these sub-leases is £28m (2018: £39m) as shown below:

	2019 £m	2018 £m
Future minimum sub-lease receipts for the Group at the end of the period are:		
Not later than one year	**14**	13
Later than one year and not later than five	**14**	26
	28	39

One vessel has been sublet to T S Global Procurement Co. Pte Limited ('Proco') but excluded from the sublet analysis above on the basis that the cost is retained by the company under the freight services agreement with Proco.

30. Contingencies

	2019 £m	2018 £m
Guarantees given under trade agreements	**25**	17
Others	**35**	57

Dependent on future events, other current legal proceedings and recent significant contracts may give rise to contingencies and commitments that are not currently reflected in the above figures. There are also contingent liabilities in the ordinary course of business in connection with the completion of contractual arrangements.

The Group is party to a number of environmental obligations where there is a possibility that an obligation may crystallise. No provision has been made in these financial statements where the Group does not consider that there is any probable loss.

The Group is party to a number of claims which may provide the Group with a future inflow of cash. No amount has been recorded in these financial statements on the basis that the Group does not consider it virtually certain that an amount will be received.

31. Reconciliation of cash generated from total operations

	2019 £m	2018 £m
Profit/(loss) after taxation	**(191)**	1,347
Adjustments for:		
Taxation	**36**	42
Depreciation and amortisation including impairment items (net of grants released)	**243**	241
(Profit)/loss on disposal of property, plant and equipment and Group companies	**(28)**	2
Finance income	**(5)**	(6)
Finance expense	**505**	456
Share of post tax results of joint ventures and associates	**(2)**	(9)
Movement in pensions and post-retirement benefits	**(42)**	(1,671)
Movement in provisions for impairments of trade receivables	**-**	-
Movement in insurance and other provisions	**(49)**	1
Movement in spares	**(15)**	(31)
Movement in inventories	**(47)**	(25)
Movement in receivables	**111**	30
Movement in payables	**72**	(43)
Net rationalisation costs provided	**7**	2
Utilisation of rationalisation provisions	**(8)**	(8)
Net cash flow generated from operations	**587**	328

32. Reconciliation of net cash flow to movement in net debt

	2019 £m	2018 £m
Movement in cash and cash equivalents	**33**	(148)
Movement in short-term investments	**-**	(3)
Movement in total debt excluding bank overdrafts	**(34)**	(679)
Change in net debt resulting from cash flows in period	**(1)**	(830)
Exchange rate movements	**45**	(27)
Fair value of forward rate agreements	**2**	4
Other non cash changes	**(255)**	(225)
Movement in net debt in period	**(209)**	(1,078)
Net debt at beginning of period	**(6,971)**	(5,893)
Net debt at end of period	**(7,180)**	(6,971)

33. Analysis of net debt

	1 April 2018 £m	Cash flow £m	Exchange rate movements £m	Other non-cash movements £m	31 March 2019 £m
Cash and short-term deposits	99	32	(1)	-	**130**
Bank overdrafts	(7)	1	-	-	**(6)**
Cash and cash equivalents	92	33	(1)	-	**124**
Other non-current borrowings	(6,099)	356	18	75	**(5,650)**
Fair value of forward rate agreement	-	-	-	2	**2**
Bank/other loans and loan notes	(897)	(400)	27	(310)	**(1,580)**
Obligations under finance leases	(67)	10	1	(20)	**(76)**
Total debt excluding bank overdrafts	(7,063)	(34)	46	(253)	**(7,304)**
	(6,971)	(1)	45	(253)	**(7,180)**

The other non-cash movements in respect of other non-current borrowings relate to the rolling up of interest of £234m into principal in respect of the loans from the parent company (2018: £191m), £3m of effective interest on the debt element of the preference shares (2018: £2m) and £12m of loan transaction costs amortised during the year (2018: £12m).

These movements are offset by a £326m reclassification within other non-cash movements from other non-current borrowings to other loans as the loan is due for repayment in less than one year.

In addition other non-cash movements in respect of other loans relate to the rolling up of interest of £nil into principal in respect of loans from Group companies (2018: £8m) and £17m transfer from other loans to obligations under finance leases (2018: £nil).

34. Disposal of group undertakings

On 15 August 2018, the Group disposed of its investment in Corus Buildings Systems Bulgaria AD to Horizont Ivanov EOOD.

On 1 October 2018, the Group disposed of its Kalzip businesses to Donges Steeltec GmbH.

(i) The net liabilities disposed were as follows:

2019	£m	£m
Property, plant and equipment	1	
Inventories	9	
Trade and other receivables	16	
Trade and other payables	(10)	
Short term borrowings	(18)	
Short term provisions and other liabilities	(2)	
Long term borrowings	(1)	
Long term provisions and other liabilities	(15)	
Net liabilities disposed		(20)
Gross consideration	2	
Intercompany loan adjustments	(21)	
Transaction fees and other adjustments	(1)	
Loss on disposal		-

(ii) Of which net cash flow arising on disposal was as follows:

	£m	£m
Gross consideration	2	
Less: deferred consideration	(1)	
Less: settlement of intercompany cashflows	(3)	
Net cash flow		(2)

35. Related party transactions

The table below sets out details of transactions which occurred in the normal course of business at market rates and terms, and loans between the Group, its parent and its joint ventures and associates. The loan owed to the immediate parent company carries interest at 5% above LIBOR per annum charged on the outstanding loan balance.

	2019 £m	2018 £m
Amounts reported within the consolidated income statement:		
Sales to joint ventures	75	66
Sales to associates	130	128
Sales to other Group companies	46	44
Other operating income with other Group companies	10	4
Purchases from associates	32	42
Purchases from ultimate parent company	2	5
Purchases from other Group companies	1,804	1,688
Interest on loans from immediate parent company (Note 5)	256	196
Interest on loans from other Group companies (Note 5)	75	74
Effective interest on redeemable non-cumulative preference shares issued to immediate parent company (Note 5)	2	2
Discount on disposal of trade receivables within purchase agreement with Group company (Note 5)	71	69
Amounts reported within the Consolidated balance sheet:		
Amounts owed by joint ventures (Note 16)	8	4
Amounts owed by associates (Note 16)	-	8
Amounts owed by ultimate parent company (Note 16)	4	-
Amounts owed by other Group companies (Note 16)	9	6
Amounts owed to associates (Note 20)	3	2
Amounts owed to ultimate parent company (Note 20)	1	1
Amounts owed to other Group companies (Note 20)	1,046	970
Interest payable to immediate parent company (Note 20)	54	34
Interest payable to other Group companies (Note 20)	7	9
Loans owed to immediate parent company (Note 19)	5,021	4,060
Loans owed to other Group companies (Note 19)	244	410
Redeemable non-cumulative preference shares issued to immediate parent company (Note 19)	47	44

Included in the transactions and balances above are arrangements that have been put in place with T S Global Procurement Co. Pte Limited ('Proco'), its subsidiary Proco Issuer Pte Limited ('Proco Issuer'), Tata Steel International ('Singapore') Pte Limited ('TSIS'), ABJA Investment Co. Pte Limited ('ABJA') and Tata Sons. These include:

Proco and Proco Issuer
(a) During 2010/11, an arrangement for extended payment terms was reached between TSE, Proco and certain raw material suppliers where the supplier agrees to extend the payment terms in return for an increase in the purchase price, which extension and increase are maintained only if the applicable receivable is purchased from the supplier by Proco. During 2011/12, this was extended to include a further arrangement whereby Proco acts as principal within certain supply agreements (e.g. raw material and fuel). Under this arrangement, Proco makes the payment to the supplier when due and then Proco provides the extended credit terms to TSE in return for an increase in purchase price. As at 31 March 2019 £930m (2018: £820m) was owed to Proco under these arrangements collectively, with total financing costs in the period of £52m (2018: £49m). Total purchases in the year in relation to this agreement were £1,720m (2018: £1,628m).

(b) A non-recourse securitisation arrangement is in place with Proco Issuer whereby it purchases certain trade receivables from TSE in the UK, Netherlands, France, Germany and Spain. The purchase price of these transactions is set with reference to the carrying value of the underlying receivables less a default deduction and a discount charge, with the receivables de-recognised by the applicable TSE Group member at the time of sale to Proco Issuer and a discount on disposal (representing the default deduction and discount charge) recognised at the same time. The discount on disposal for the period to March 2019 amounted to £71m (2018: £69m). As at 31 March 2019 £100m (2018: £133m) was owed to Proco Issuer under this arrangement. During the year TSE recognised £4m (2018: £3m) of servicing income with Proco which reflects the administration costs incurred by TSE for collecting the debtors on behalf of Proco.

(c) Up to 31 March 2019, TSE received loans from Proco to settle various external creditors. This included the settlement of insurance premiums, the funding of energy procurement from external suppliers for onward sale to TSUK and the funding of the sale of emission rights from TSUK and TSN to TSE. This also included an extended supplier credit arrangement between TSE, TSUK and certain third party suppliers under which TSE receives loans from Proco to purchase the TSUK receivables from the third party suppliers and thereby settles the external creditor. At 31 March 2019, £118m (2018: £284m) (including £3m interest accrued (2018: £5m) was owed to Proco under this arrangement, with total financing costs in the period of £12m (2018: £14m).

ABJA Investment Co. Pte Limited (ABJA)
During the December 2013 quarter, and the March 2014 quarter Tata Steel Netherlands Holdings BV issued unsecured loan notes both with value of £63m (€75m) to ABJA, redeemable on 2 May 2023. The notes are interest bearing at an arm's length rate, which is payable on a semi-annual basis. The cumulative finance costs for these notes were £11m (2018: £11m) in the year.

Tata Sons
There is also a branding fee payable to Tata Sons under a brand equity and business promotion agreement, based on net income and profit before tax, with £9m being payable for 2019 (2018: £15m).

Aggregate compensation for key management personnel, being the TSE Board of Directors and other TSE Executive Committee members was as follows:

	2019 £m	2018 £m
Short-term employee benefits	**5**	6
	5	6

36. Events after the reporting period

On 26 April 2019 there was a spillage of liquid iron at the Port Talbot site resulting in an explosion. Some relatively minor injuries were suffered by 2 employees. However due to prompt actions taken by TSE employees the impact of this incident was minimised and was not material to the financial statements.

On 10 May 2019 TSL and tk announced that activities to complete the JV had been suspended due to the unlikelihood of obtaining merger control approval from the European Commission ('EC').

37. Ultimate and immediate parent company

T S Global Holdings Pte. Limited is the company's immediate parent company, which is incorporated and registered in Singapore.

Tata Steel Limited, a company incorporated in India, is the ultimate parent company and controlling party and the smallest and largest group to consolidate these financial statements.

Copies of the Report & Accounts for TSL may be obtained from its registered office at Bombay House, 24 Homi Mody Street, Mumbai, 400 001.

38. Subsidiaries and investments

The subsidiary undertakings, joint ventures and associates of the Group at 31 March 2019 are set out below. Country names are countries of incorporation. Undertakings operate principally in their country of incorporation.

Subsidiary undertakings
Steel producing, further processing or related activities:

Belgium	
Société Européenne de Galvanisation (Segal) Sa (ii) (iii)	Chassée de Ramioul 50, Flemalle, Ivoz Ramet, 4400, Belgium
Tata Steel Belgium Packaging Steels N.V. (ii) (iii)	Walemstraat 38, Duffel, 2570, Belgium
Tata Steel Belgium Services N.V. (ii) (iii)	Coremansstraat 34, Berchem, 2600, Belgium
Brazil	
Tata Steel International (South America) Representacoes Limited (ii) (iii)	Santiago & Amboulos Advogados, Av. Rio Branco, 45 - 10º andar - Grupo 1013, Centro - Rio de Janeiro - RJ. CEP: 20090-003
Canada	
Cogent Power Inc. (ii) (iii)	845 Laurentian Drive, Burlington, Ontario, Canada, L7N 3W7
Tata Steel International (Canada) Holdings Inc (ii) (iii)	Dentons Canada LLP, 1 Place Villa-Marie, Suite 3900, Montreal, Quebec, Canada
Czech Republic	
Tata Steel International (Czech Republic) S.R.O (ii) (iii)	Praha 2, Mala Stepanska 9, 120 00, Czech Republic
Denmark	
Tata Steel Denmark Byggsystemer A/S (ii) (iii)	Kaarsbergsvej 2, Postbox 136, Ebeltoft, DK 8400, Denmark
Tata Steel International (Denmark) A/S (ii) (iii)	Frederiksborgvej 23, DK-3520 Farum, Denmark
Finland	
Naantali Steel Service Centre OY (ii) (iii)	Rautakatu 5, 21110 Naantali, Finland
Tata Steel International (Finland) OY (ii) (iii)	Hitsaajankatu 22, 00810 Helsinki, Finland
France	
Cbs Investissement SAS (ii) (iii)	Rue Geo Lufbery, Chauny, 02300, France
Inter Metal Distribution (I.M.D.) SAS (ii) (iii)	3 Allee des Barbanniers, Gennevilliers, 92230, France
SCI Corbeil Les Rives (67.31%) (ii) (iii)	Rue Decauville, Corbeil Essonnes, 91100, France
Tata Steel France Bâtiment et Systèmes SAS (ii) (iii)	Rue Geo Lufbery, BP 103, Chauny, 02300, France
Tata Steel France Holdings SAS (ii) (iii)	3, Allee des Barbanniers, Gennevilliers, 92632, France
Tata Steel International (France) SAS (ii) (iii)	3 Allee des Barbanniers, Gennevilliers, 92230, France
Tata Steel Maubeuge SAS (ii) (iii)	22, Avenue Abbé Jean de Béco, Louvroil, 59720, France
Unitol SAS (ii) (iii)	1 Rue Fernand Raynaud, Corbeil Essonnes, 91814, France
Germany	
Catnic GmbH (ii) (iii)	Am Leitzelbach 16, Sinsheim, 74889, Germany
Degels GmbH (ii) (iii)	Königsberger Strasse 25, Neuss, 41460, Germany
Fischer Profil GmbH (ii) (iii)	Waldstrasse 67, Netphen, 57250, Germany
Hille & Müller GmbH (ii) (iii)	Am Trippelsberg 48, 40589 Dusseldorf, Germany
S.A.B Profil GmbH (ii) (iii)	Industriestrasse 13, Niederaula, 36272, Germany
Service Center Gelsenkirchen GmbH (ii) (iii)	Am Trippelsberg 48, 40589 Düsseldorf, Germany
Tata Steel Germany GmbH (ii) (iii)	Am Trippelsberg 48, 40589 Düsseldorf, Germany
Tata Steel International (Germany) GmbH (ii) (iii)	Am Trippelsberg 48, 40589, Dusseldorf, Germany
India	
Tata Steel International (India) Limited. (ii) (iii)	412 Raheja Chambers, 213 Backbay Reclamation, Nariman Point, Mumbai 400 021, India
Ireland (Republic of)	
Corus Ireland Limited. (ii) (iii)	1 Stokes Place, St Stephens Green, Dublin 2, Ireland
Gamble Simms Metals Limited. (ii) (iii)	Tata Steel service centre, steel house, bluebell industrial estate, bluebell avenue, Dublin 12
Lister Tubes Limited. (ii) (iii)	Tata Steel Steel Service Centre, Steel House, Bluebell Industrial Estate, Bluebell Avenue, Dublin 12
Stewarts & Lloyds Of Ireland Limited. (ii) (iii)	1 Stokes Place, St Stephens Green, Dublin 2
Walkersteelstock Ireland Limited. (ii) (iii)	Tata steel service centre, Steel House, Bluebell Industrial Estate, Bluebell Avenue, Dublin 12
Isle of Man	
Crucible Insurance Company Limited. (ii) (iii)	Level 2, Samuel Harris House, 5-11 St. George's Street, Douglas, Isle of Man, IM1 1AJ

Italy	
Tata Steel International (Italia) Srl (ii) (iii)	Via Giovanni Gioacchino Winckelmann, 2, Milano MI, Italy
Mexico	
Tata Steel International Mexico SA de CV (ii) (iii)	Era 2, Real de Anahuac, 66600 Ciudad Apodaca, Nuevo Leon, Mexico
Netherlands	
Beheermaatschappij Industriële Produkten B.V. (ii) (iii)	Wenckebachstraat 1, Velsen-Noord, 1951 JZ, Netherlands
British Steel Nederland International B.V. (ii) (iii)	Wenckebachstraat 1, Velsen-Noord, 1951 JZ, Netherlands
C. V. Bénine (76.93%) (ii) (iii)	Wenckebachstraat 1, Velsen-Noord, 1951 JZ, Netherlands
Corus Primary Aluminium B.V. (ii) (iii)	Wenckebachstraat 1, Velsen-Noord, 1951 JZ, Netherlands
Demka B.V. (ii) (iii) (vii)	Wenckebachstraat 1, Velsen-Noord, 1951 JZ, Netherlands
Esmil B.V. (ii) (iii)	Wenckebachstraat 1, Velsen-Noord, 1951 JZ, Netherlands
Huizenbezit Breesaap B.V. (ii) (iii)	Wenckebachstraat 1, Velsen-Noord, 1951 JZ, Netherlands
S.A.B Profiel B.V. (ii) (iii)	Produktieweg 2-3a, Ijsselstein, 3401 Mg, Netherlands
Service Centre Maastricht B.V. (ii) (iii)	Fregatweg 42, 6222 Nz, Maastricht, Netherlands
Staalverwerking En Handel B.V. (ii) (iii)	Wenckebachstraat 1, Velsen-Noord, 1951 JZ, Netherlands
Tata Steel Europe Distribution B.V. (ii) (iii)	Postbus 10000, IJmuiden, 1970 CA, Netherlands
Tata Steel Europe Metals Trading B.V. (ii) (iii)	Wenckebachstraat 1, Velsen-Noord, 1951 JZ, Netherlands
Tata Steel IJmuiden B.V. (ii) (iii)	Wenckebachstraat 1, Velsen-Noord, 1951 JZ, Netherlands
Tata Steel Nederland B.V. (ii) (iii)	Wenckebachstraat 1, Velsen-Noord, 1951 JZ, Netherlands
Tata Steel Nederland Consulting & Technical Services B.V. (ii) (iii)	Wenckebachstraat 1, Velsen-Noord, 1951 JZ, Netherlands
Tata Steel Nederland Services B.V. (ii) (iii)	Wenckebachstraat 1, Velsen-Noord, 1951 JZ, Netherlands
Tata Steel Nederland Star-Frame B.V. (ii) (iii)	Wenckebachstraat 1, Velsen-Noord, 1951 JZ, Netherlands
Tata Steel Nederland Technology B.V. (ii) (iii)	Wenckebachstraat 1, Velsen-Noord, 1951 JZ, Netherlands
Tata Steel Nederland Tubes B.V. (ii) (iii)	Souvereinstraat 35, Oosterhout, 4903 Rh, Netherlands
Tata Steel Netherlands Holdings B.V. (ii) (iii)	Wenckebachstraat 1, Velsen-Noord, 1951 JZ, Netherlands
Nigeria	
Tata Steel International (Nigeria) Limited. (ii) (iii) (xiv)	Block 69a, Plot 8, Admiralty Way, Lekki Phase 1, Lagos, Nigeria
Norway	
Norsk Stal Tynnplater AS (ii) (iii)	Habornveien 60, PO Box 1403, N1631, Gamle Fredrikstad, 1630, Norway
Tata Steel Norway Byggsystemer A/S (ii) (iii)	Roraskogen 2, Skien, N 3739, Norway
Poland	
Corus Tubes Poland Spólka z.o.o (ii) (iii)	Ul. Grabiszynska, Wrocla, 53-234, Poland
Tata Steel International (Poland) Spólka z.o.o (ii) (iii)	7, Ul. Piastowska, Katowice, 40-005, Poland
Romania	
Corus International Romania SRL (ii) (iii)	169 A Calea Floreasca, A Building, Campus 10, 4th Floor, Office 2039-2044, 1st District,, Bucharest, Romania
Russia	
Corus Steel Service STP LLC (ii) (iii)	Office 503, liter A, 34 line 9 V. I., Saint-Petersburg, 199004, Russia
South Africa	
TS South Africa Sales Office Proprietary Limited (ii) (xii)	1st Floor, Kamogelo Suites, 39 Lakefield Avenue, Benoni, Gauteng, 1501, South Africa
Spain	
Layde Steel S.L. (ii) (iii)	Av. Zugazarte 52, Las Arenas, Vizcaya, 48930, Spain
Tata Steel International Iberica SA (ii) (iii)	Calle Rosario Pino 14-16, Torre Rioja, Madrid, 28020, Spain
Sweden	
Halmstad Steel Service Centre AB (ii) (iii)	Stationsgatan 55, 302 50 Halmstad, Sweden
Norsk Stal Tynnplater AB (ii) (iii)	Rønneholmsvej 11 B, 211 47 Malmø, Sweden
Surahammar Bruks AB (ii) (iii)	Box 201, S-735 23, Surahammar, Sweden
Tata Steel International (Sweden) AB (ii) (iii)	Barlastgatan 2, 414 63 Gothenburg, Sweden
Tata Steel Sweden Byggsystem AB (ii) (iii)	Handelsvägen 4, 302 30 Halmstad, Hallands Län, Sweden
Switzerland	
Montana Bausysteme AG (ii) (iii)	Durisolstrasse 11, Villmergen, 5612, Switzerland
Tata Steel International (Schweiz) AG (ii) (iii)	Wartenbergstrasse 40, Basel, 4052, Switzerland
Turkey	
Tata Steel Istanbul Metal Sanayi ve Ticaret AS (ii) (iii)	Elmadag Harbiye Mahalessi Cumhuriyet Caddesi No: 48, Pegasus Evi Kat:7, Sisli, ISTANBUL, Turkey
UAE	
Tata Steel International (Middle East) FZE (ii) (iii)	PO Box 18294, Jebel Ali, Dubai, United Arab Emirates

Ukraine	
Corus Ukraine LLC (ii) (iii)	Office 16, Building 11/23B, Chekhivskiy Provulok / Vorovskogo Street, 01054 Kiev, Ukraine
United Kingdom	
00302520 Limited (xv)	30 Millbank London SW1P 4WY
Alloy Steel Rods Limited (xv)	30 Millbank London SW1P 4WY
Automotive Laser Technologies Limited (ii) (iii) (xiii)	Hill House, 1 Little New Street, London, EC4A 3TR
Bell & Harwood Limited (ii) (iii)	30 Millbank London SW1P 4WY
Blastmega Limited (ii) (iii) (vii)	30 Millbank London SW1P 4WY
Bore Samson Group Limited (ii) (iii)	30 Millbank London SW1P 4WY
Bore Steel Limited (ii) (iii)	30 Millbank London SW1P 4WY
British Bright Bar Limited (xv)	30 Millbank London SW1P 4WY
British Guide Rails Limited (ii) (iii) (x)	30 Millbank London SW1P 4WY
British Steel Corporation Limited (ii) (iii)	30 Millbank London SW1P 4WY
British Steel Directors (Nominees) Limited (ii) (iii)	30 Millbank London SW1P 4WY
British Steel Engineering Steels (Exports) Limited (ii) (iii)	30 Millbank London SW1P 4WY
British Steel Service Centres Limited (ii) (iii)	30 Millbank London SW1P 4WY
British Steel Trading Limited (xv)	30 Millbank London SW1P 4WY
British Tubes Stockholding Limited (ii) (iii) (xiii)	Hill House, 1 Little New Street, London, EC4A 3TR
C Walker & Sons Limited (ii) (iii)	30 Millbank London SW1P 4WY
Catnic Limited (ii) (iii) (viii) (ix)	30 Millbank London SW1P 4WY
Cogent Power Limited (ii) (iii) (x)	Orb Works, Stephenson Street, Newport, Gwent, NP19 0RB
Cold Drawn Tubes Limited (ii) (iii)	30 Millbank London SW1P 4WY
Color Steels Limited (ii) (iii)	30 Millbank London SW1P 4WY
Corby (Northants) & District Water Co. (ii) (iii)	Tata Steel Uk Limited, Po Box 101 Weldon Road, Corby, Northamptonshire, Nn17 5ua
Cordor (C&B) Limited (ii) (iii)	30 Millbank London SW1P 4WY
Corus CNBV Investments (ii) (iii)	30 Millbank London SW1P 4WY
Corus Cold Drawn Tubes Limited (ii) (iii)	30 Millbank London SW1P 4WY
Corus Engineering Steels (UK) Limited (ii) (iii)	30 Millbank London SW1P 4WY
Corus Engineering Steels Holdings Limited (ii) (iii) (xi)	30 Millbank London SW1P 4WY
Corus Engineering Steels Limited (ii) (iii) (xi)	30 Millbank London SW1P 4WY
Corus Engineering Steels Overseas Holdings Limited (ii) (iii)	30 Millbank London SW1P 4WY
Corus Engineering Steels Pension Scheme Trustee Limited (ii) (iii)	British Steel Pend Fund, 17th Floor 125 Old Broad Street, London, EC2N 1AR
Corus Group Limited (ii) (iii)	30 Millbank London SW1P 4WY
Corus Holdings Limited (ii) (iii)	15 Atholl Crescent, Edinburgh, EH3 8HA
Corus International (Overseas Holdings) Limited (ii) (iii)	30 Millbank London SW1P 4WY
Corus International Limited (ii) (iii)	30 Millbank London SW1P 4WY
Corus Investments Limited (ii) (iii)	15 Atholl Crescent, Edinburgh, EH3 8HA
Corus Large Diameter Pipes Limited (ii) (iv) (v) (viii)	30 Millbank London SW1P 4WY
Corus Liaison Services (India) Limited (ii) (iii)	30 Millbank London SW1P 4WY
Corus Management Limited (ii) (iii)	30 Millbank London SW1P 4WY
Corus Property (ii) (iii)	30 Millbank London SW1P 4WY
Corus Service Centre Limited (ii) (iii)	Hull's Hill, Lisburn, Co.Atrim, BT28 2SR
Corus UK Healthcare Trustee Limited (ii) (iii)	30 Millbank London SW1P 4WY
Cpn (85) Limited (ii) (iii) (xiii)	Hill House, 1 Little New Street, London, EC4A 3TR
Darlington & Simpson Rolling Mills Limited (xv)	30 Millbank London SW1P 4WY
Dsrm Group Plc. (ii) (iii)	30 Millbank London SW1P 4WY
Europressings Limited (ii) (iii) (xiii)	Hill House, 1 Little New Street, London, EC4A 3TR
Firsteel Engineering Limited (ii) (iii)	30 Millbank London SW1P 4WY
Firsteel Group Limited (ii) (iii)	30 Millbank London SW1P 4WY
Firsteel Holdings Limited (ii) (iii)	30 Millbank London SW1P 4WY
Grant Lyon Eagre Limited (ii) (iii)	30 Millbank London SW1P 4WY
H E Samson Limited (ii) (iii)	30 Millbank London SW1P 4WY
Hadfields Holdings Limited (62.5%) (ii) (iii)	30 Millbank London SW1P 4WY
Hallamshire Steel Co. Limited(The) (xv)	30 Millbank London SW1P 4WY
Hammermega Limited (ii) (iii)	30 Millbank London SW1P 4WY
Harrowmills Properties Limited (ii) (iii) (xiii)	Hill House, 1 Little New Street, London, EC4A 3TR
John Tinsley Limited (xv)	30 Millbank London SW1P 4WY
London Works Steel Company Limited (ii) (iii)	30 Millbank London SW1P 4WY
Midland Steel Supplies Limited (ii) (iii) (xiii)	Hill House, 1 Little New Street, London, EC4A 3TR
Nationwide Steelstock Limited (ii) (iii)	30 Millbank London SW1P 4WY
Orb Electrical Steels Limited (ii) (iii)	Orb Works, Stephenson Street, Newport, NP19 0RB
Ore Carriers Limited (ii) (iv) (v) (viii)	30 Millbank London SW1P 4WY
Plated Strip International Limited (ii) (iii)	30 Millbank London SW1P 4WY
Precoat International Limited (ii) (iii)	30 Millbank London SW1P 4WY
Precoat Limited (ii) (iii) (x)	30 Millbank London SW1P 4WY
Round Oak Properties Limited (ii) (iv) (xi)	15 Great Marlborough Street, London, W1V 1AF
Round Oak Steel Works Limited (ii) (iii)	30 Millbank London SW1P 4WY

Runblast Limited (ii) (iii)	30 Millbank London SW1P 4WY
Runmega Limited (ii) (iii)	30 Millbank London SW1P 4WY
Samuel Fox Limited (xv)	30 Millbank London SW1P 4WY
Seamless Tubes Limited (ii) (iii)	30 Millbank London SW1P 4WY
Smith, Druce Stainless Limited (xv)	30 Millbank London SW1P 4WY
Steel Peech & Tozer Limited (xv)	30 Millbank London SW1P 4WY
Steel Stockholdings Limited (ii) (iv) (v)	30 Millbank London SW1P 4WY
Steelstock Limited (ii) (iii)	30 Millbank London SW1P 4WY
Stewarts And Lloyds (Overseas) Limited (ii) (iii)	15 Atholl Crescent, Edinburgh, EH3 8HA
Swinden Housing Association (ii) (iii)	Swinden House, Moorgate, Rotherham, South Yorkshire, S60 3AR, England
Tata Steel UK Consulting Limited (ii) (iii)	30 Millbank London SW1P 4WY
Tata Steel UK Holdings Limited (ii) (iii)	30 Millbank London SW1P 4WY
Tata Steel UK Limited (ii) (iii)	30 Millbank London SW1P 4WY
The Newport And South Wales Tube Company Limited (ii) (iii) (x)	30 Millbank London SW1P 4WY
The Stanton Housing Company Limited (ii) (iii)	30 Millbank London SW1P 4WY
The Steel Company of Wales Limited (xv)	30 Millbank London SW1P 4WY
The Templeborough Rolling Mills Limited (ii) (iv) (v)	30 Millbank London SW1P 4WY
Toronto Industrial Fabrications Limited (ii) (iii) (xi)	30 Millbank London SW1P 4WY
Tulip UK Holdings (No.2) Limited (i) (iii)	30 Millbank London SW1P 4WY
Tulip UK Holdings (No.3) Limited (ii) (iii)	30 Millbank London SW1P 4WY
U.E.S. Bright Bar Limited (ii) (iii)	30 Millbank London SW1P 4WY
United Steel Structural Company Limited (xv)	30 Millbank London SW1P 4WY
UK Steel Enterprise Limited (ii) (iii)	The Innovation Centre, 217 Portobello, Sheffield, S1 4DP
UKSE Fund Managers Limited (ii) (iii)	The Innovation Centre, 217 Portobello, Sheffield, S1 4DP
Walker Manufacturing And Investments Limited (ii) (iii)	30 Millbank London SW1P 4WY
Walkersteelstock Limited (ii) (iii)	30 Millbank London SW1P 4WY
Wellington Tube Works Limited (xv)	30 Millbank London SW1P 4WY
Westwood Steel Services Limited (ii) (iii)	30 Millbank London SW1P 4WY
Whitehead (Narrow Strip) Limited (ii) (iii)	30 Millbank London SW1P 4WY
USA	
Apollo Metals, Limited. (ii) (iii)	1001 Fourteenth Avenue, 18018-0045 Bethlehem, USA
Cogent Power Inc. (ii) (iii)	c/o The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801, New Castle County, United States
Hille & Müller USA, Inc. (ii) (iii)	Delaware Avenue N.W., Warren, Ohio, 44485, United States
Hoogovens Usa, Inc. (ii) (iii)	475 N. Martingale Road, Suite 400, Schaumburg, IL 60173 USA
Oremco, Inc. (ii) (iii)	60 E42 Street, New York, N.Y., 10165, United States
Rafferty-Brown Steel Co Inc Of Conn. (ii) (iii)	475 N. Martingale Road, Suite 400, Schaumburg, IL 60173 USA
Tata Steel International (Americas) Holdings Inc. (ii) (iii)	Wilmington Trust SP Services, Inc, 1105 N Market Place, Wilmington, DE, 19899, USA
Tata Steel International (Americas) Inc. (ii) (iii)	475 N. Martingale Road, Suite 400, Schaumburg, IL 60173 USA
Tata Steel USA, Inc. (ii) (iii)	475 N. Martingale Road, Suite 400, Schaumburg, IL 60173 USA
Thomas Processing Company (ii) (iii)	Delaware Avenue N.W., Warren, Ohio, 44485, United States
Thomas Steel Strip Corp. (ii) (iii)	Delaware Avenue N.W., Warren, Ohio, 44485, United States

Classification key:

(i) Directly owned by Tata Steel Europe Limited
(ii) Indirectly owned by Tata Steel Europe Limited
(iii) Ordinary shares
(iv) Ordinary A shares
(v) Ordinary B shares
(vi) Ordinary C shares
(vii) Preference shares
(viii) Deferred shares
(ix) Deferred A shares
(x) Cumulative redeemable preference shares
(xi) Non-cumulative preference shares
(xii) No share capital
(xiii) Currently in liquidation via a Members Voluntary Liquidation
(xiv) Currently in liquidation
(xv) Not consolidated

All subsidiaries are included in the consolidation of these accounts.

Unless indicated otherwise, subsidiary undertakings are wholly owned within the Group.

Joint ventures, Joint operations and associates

England and Wales	
Air Products Llanwern Limited (50%) (i) (ii) (JO)	Hersham Place Technology Park, Molesey Road, Walton On Thames, Surrey, KT12 4RZ
Fabsec Limited (25%) (i) (iv) (JV)	Cellbeam Ltd, Unit 516 Avenue E East, Thorp Arch Estate, Wetherby, West Yorkshire, England, LS23 7DB
ISSB Limited (50%) (i) (ii) (AS)	Corinthian House, 17 Lansdowne Road, Croydon, Greater London, CR0 2BX
Texturing Technology Limited (50%) (i) (iii) (JO)	PO Box 22, Texturing Technology Ltd, Central Road, Tata Steel Site Margam, Port Talbot, West Gamorgan, Wales, SA13 2YJ
Ravenscraig Limited (33%) (i) (iii) (JV)	15 Atholl Crescent, Edinburgh, EH3 8HA
Netherlands	
Gietwalsonderhoudcombinatie B.V. (50%) (i) (ii) (AS)	Staalstraat 150, 1951 JP Velsen-Noord
Hoogovens Court Roll Surface Technologies VOF (50%) (i) (viii) (JO)	WENCKEBACHSTRAAT 1, VELSEN NOORD, 1951 JZ, Netherlands
Hoogovens Gan Multimedia S.A. De C.V. (50%) (i) (vii) (AS)	Ave. I. Zaragoza 1300 sur, zona centro, Monterrey, Nueva Leon, c.p. 64000, Mexico
Laura Metaal Holding B.V. (49%) (i) (ii) (JV)	Rimburgerweg 40, 6471 XX Eygelshoven, Kerkrade, The Netherlands
Wupperman Staal Nederland B.V. (30%) (i) (ii) (AS)	Vlasweg 15, 4782 PW Moerdijk, Netherlands
France	
Albi Profils SAS (30%) (i) (ii) (AS)	13 Rue Philippe Lebon, 81000 Albi, France
Turkey	
Tata Steel Ticaret AS (50%) (i) (ii) (JV)	Cumhuriyet cad. No:48, Pegasus Binası Kat 7, 34367 Harbiye – Istanbul, Turkey

Financial information relating to joint venture and associate companies is disclosed in Note 11.

Classification key:

(i) Owned by the Group
(ii) Ordinary shares
(iii) Ordinary A shares
(iv) Ordinary B shares
(v) Voting shares
(vi) Preference shares
(vii) 455,000 shares of the variable part ; 25,000 of the minimum fixed part of the capital stock
(viii) Partnership by agreement
(JV) Joint Venture
(JO) Joint Operation
(AS) Associate

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