

2019 Full Year Results

Data Appendix



Detailed 2020 guidance

Guidance excludes any material impact from COVID-19 in 2020

Net R&D cash spend	Broadly stable (2019: £1,108m)
Capitalised R&D	£100m-£150m lower (2019: £468m)
Capex (PPE)	£100m-£150m higher (2019: £747m)
Trent 1000 in-service cash costs	£450-£550m (2019: £578m)
P&L finance costs	Broadly stable (2019: £223m)
Underlying tax rate	Low-to-mid 30%s (2019: 47.9%)
Cash tax	£260-£290m (2019: £175m)



Restructuring & exceptional costs incl. Trent 1000

Trent 1000 exceptional in-line with November trading statement

Trent 900 £11m lower than H1 relating to supplier claims recorded in 2018

Total exceptional charge £1,545m

Trent 1000 **£1,361m**

Trent 900 **£48m**

Restructuring **£136m**

Group* Other £88m £48m

^{3 2019} Full Year Results © Rolls-Royce



Trent 1000 provisions

Trent 1000 exceptional charges

2018 **£790m**2019 **£1,361m**Total charges **£2,151m**

~2/3 of Trent 1000 charges taken to date relate to the in-service cash costs

- **~£1.5bn** Provisions for in-service cash costs
- ~£(0.6)bn Consumed to-date
- **~£0.9bn** Provisions remaining at FY2019

~1/3 remaining ~£0.7bn largely relates to the up-front recognition of losses on a small number of onerous contracts and contract accounting adjustments



Civil Aerospace Trading cash flow

Widebody underlying cash margin up **£300m**

£bn	2019	2018
Original equipment	(0.6)	(0.6)
Underlying services	1.9	1.6
Spare engines	0.3	0.3
Widebody Cash Margin (underlying)	1.6	1.3
Trent 1000 in-service costs	(0.6)	(0.4)
Insurance receipts	0.2	-
Widebody Cash Margin	1.2	0.9
Business, regional, & V2500	1.1	1.0
Operations & engineering costs	(0.8)	(0.7)
Cash Gross Margin	1.5	1.2
R&D, Capex & C&A costs	(1.6)	(1.7)
Working capital	0.5	0.7
Trading Cash Flow	0.4	0.2

Continued progress on delivering mid-term ambition

- Progress in OE unit losses but higher volumes
- Strong growth in aftermarket cash margin
- Declining contribution from working capital



Civil Aerospace:

Drivers of LTSA balance

Deferred revenue

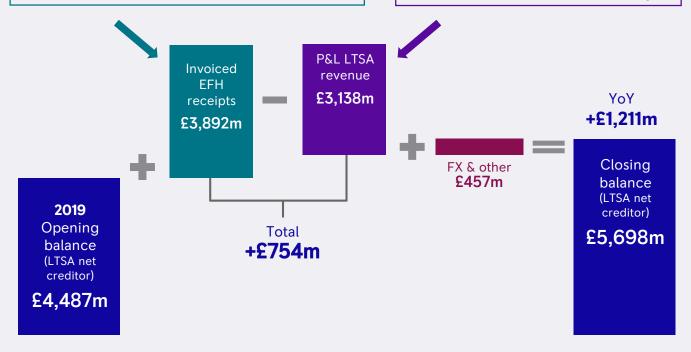
reflects difference between invoiced EFH receipts and P&L revenues traded

Invoiced EFH receipts

- Reflects invoiced EFH receipts on long-term contracts across entire Civil LTSA-covered fleet:
- Large engine (15.3m EFH in 2019) + business aviation + regional

P&L revenue

- Driven by cost (shop visit & other costs) across large engine, business aviation and regional fleets
- Recognised by contract, as costs incurred, at relevant contract margins





Foreign exchange

Rolls-Royce hedges transactional FX

- Transactional exposure arises when revenue currencies differ from cost currencies
- Achieved rate is not typically affected by short-term spot rate movements unless new cover is taken; this impact is usually diluted
- \$37 billion GBP:USD hedge book
- Hedge book average rate is £/\$1.53
- \$5.4 billion EUR:USD hedge book
- Hedge book average rate is €/\$1.25

Rolls-Royce does not hedge against the impact of translational FX

- Translational exposure varies by source of revenues and profits
- Translational FX impact is driven by period average spot rates
- Translational impact increases as rate reduces

Translational impact of 0.01 unit of currency change in period average rates

	Revenue	Profit
USD	~£16 million	~£4 million
EUR	~£46 million	~£7 million



Foreign exchange: Translational impact

The impact of translational foreign exchange is driven by period average spot rates

	EXPOSI	URE	REVENUE II	MPACT	UNDERL' OPERATING IMPAG	PROFIT
2019 vs. 2018 £m	Revenue	Profit	Inc FX	FX	Inc FX	FX
Group			15,450	55	808	23
Civil Aerospace	USD, EUR	USD, EUR	8,107	7	44	11
Power Systems	EUR, USD	EUR, USD	3,545	(28)	357	(3)
Defence	USD	USD	3,250	83	415	16
ITP	EUR, USD	EUR, USD	936	(9)	111	(1)
Non-core/Other*	NOK, EUR, USD	EUR, USD	(388)	2	(119)	_

Period average rates	2019	2018
USD	1.28	1.33
EUR	1.14	1.13



USD hedge book

Hedge book cover levels and rates by year

	2020	2021	2022	2023	2024
Cover level	100%	100%	100%	95-100%	70-80%
Forecast £\$ achieved rate*	1.52	1.51	1.50	1.49	1.48

^{*}Forecast £\$ achieved rate is a blend of hedge book and market rate on unhedged position

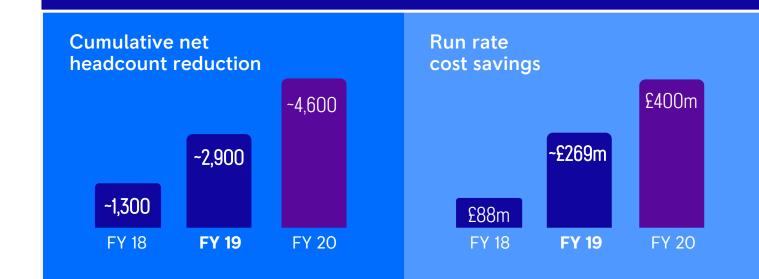
- \$37bn total hedge book at an average of 1.53
- Fully covered 2020-2023
- Hedge book extends to 2028 on a declining basis



Key achievements

Run-rate cost savings of £269m now achieved

- Restructuring on track to deliver our 4,600 headcount commitments with acceleration in H2
- Simplified corporate matrix and removed ~2,900 (~10% of Indirect) headcount
- Run rate cost savings of £269m achieved since the programme commenced in June 2018





Group balance sheet

Impacted by IFRS 16 from 2019

Debt increase on transition of £2.2bn

IFRS 16 Transition

- Effective from 1 January 2019
 with adjustment to assets,
 liabilities and a modest change
 to reserves on that date
- Property and aircraft engines most material: c.£1.4bn engine assets added to balance sheet

Impact of IFRS 16

£2.0bn



Lease liability added





PBT Modestly negative

No change to cash flows



Pensions FY19

UK Plan continues to have a strong surplus £1.1bn

Rolls-Royce UK Pension Fund

- 79% of gross liabilities and 92% of gross assets
- £9.6bn of assets (£8.5bn UK liabilities) and surplus of £1.1bn (IAS 19 basis).
 £785m reduction is primarily the result of a settlement with Legal & General (L&G) of £3.6bn of pension liabilities & lowering discount rates
- 89% of assets in low risk investments to match liabilities key to protecting our funding position in low yield environment
- Closed to new hires since 2007
- Next statutory funding valuation due on 31 March 2020. Current agreement with trustees has lowered future service cost.
- Cash contributions (company year):
 2018 £120m
 2019 £199m (includes L&G payment for pensioner transfer)
 2020 £100m (Projected)

Overseas plans

- 21% of gross liabilities and 8% of gross assets
- Deficit of £1,349m (IAS 19 basis) principally made up of
 - unfunded US healthcare/funded pension plans (£439m) and
 - German unfunded pension plans (£851m)
- Cash contributions:

2018 £64m **2019** £67m **2020** £66m (projected)



*IAS 19 reporting basis discounts liabilities using a AA bond rate – while this is the required reporting method it does not match the method used to manage and fund the UK plan - which discounts liabilities using a curve to align to its Liability Driven Investments (gilt based). This significantly reduces the real funding volatility relevant for cash funding purposes rather than that shown by the IAS19 valuations



Core business R&D

Net R&D cash spend maintained

2020:

Net R&D cash spend expected to be broadly stable at ~£1.1bn

Commitment to investing in our future

£m	2019	2018	Organic Change
Gross R&D	1,448	1,377	+5%
Third party contributions	(340)	(272)	+25%
Net R&D cash spend	1,108	1,105	0%
Capitalised	(468)	(498)	-6%
Amortisation & impairment	48	43	+12%
Net R&D P&L charge	688	650	+5%

£1,108m net R&D cash spend modestly up year on year

- Around two-thirds R&D spend in Civil Aerospace with increased investment in UltraFan demonstrator and business aviation new products
- Increase spend in **Defence** on future programmes in transport and combat
- Power Systems on future engines and electrification strategy
- Increase investment in **electrical** reflecting our commitment to lower carbon power



Trent engine products

Leading widebody market share

£m	Airframe	Market share*	Engines in service	Engines on order
Trent 7000	Airbus A330neo	100%	80	576
Trent XWB	Airbus A350	100%	660	1,133
Trent 1000	Boeing 787	36%	658	246
Trent 900	Airbus A380	53%	428	13
Trent 800	Boeing 777	40%	320	0
Trent 700	Airbus A330	60%	1,606	10
Trent 500	Airbus A340	100%	240	0
			3,992	1,978

^{*} Share of total firm and announced programme sales with an engine decision (excludes cancelled orders) up until Dec 2019



Civil engine deliveries

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
By engine																	
RB211 22B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(
RB211 524	2	5	7	0	5	4	0	0	0	0	0	0	0	0	0	0	(
RB211 535	14	6	0	2	0	1	1	0	0	0	0	0	0	0	0	0	(
RB211 Total	16	11	7	2	5	5	1	0	0	0	0	0	0	0	0	0	(
Trent 500	88	115	88	97	45	45	57	16	1	8	0	0	0	0	0	0	(
Trent 700	35	30	54	59	75	88	125	139	135	157	181	184	140	88	110	63	10
Trent 800	30	15	21	25	10	7	9	0	0	0	0	0	0	0	0	0	(
Trent 900				20	10	48	33	30	70	64	42	35	6	30	67	44	34
Trent 1000									18	46	59	79	106	122	109	125	120
Trent XWB-84												13	56	117	196	184	17
Trent XWB-97															1	45	5
Trent 7000																8	100
Trent	153	160	163	201	140	188	224	185	224	275	282	311	308	357	483	469	510
Civil Large Engines	169	171	170	203	145	193	225	185	224	275	282	311	308	357	483	469	510
Tay	48	43	55	66	80	92	68	51	57	60	67	46	38	28	2	0	(
AE3007	217	242	168	113	135	135	32	55	31	43	78	48	34	20	8	10	
BR700	96	131	161	155	183	216	172	184	232	290	326	334	332	244	190	205	19
Pearl 15																2	2
Pearl 700																	
Civil Small Engines	361	416	384	334	398	443	272	290	320	393	471	428	404	292	200	217	21
V2500*	216	237	327	319	308	351	347	371	418	220	0	0	0	0	0	0	(
Civil Total	746	824	881	856	851	987	844	846	962	888	753	739	712	649	683	686	729

^{*} V2500 deliveries are recorded until the sale of Rolls-Royce's stake in International Aero Engines on 29th June 2012



Civil engine in-service installed fleet**

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
By engine	2000	2004	2000		2007			20.0	2011	20.2	20.0	20.4	20.0	20.0	20.7	20.0	
RB211 22B	48	36	36	12	15	9	12	9	6	6	3	3	3	3	3	3	3
RB211 524	829	815	796	791	769	706	643	638	617	530	455	352	302	278	266	242	210
RB211 535	1,154	1,192	1,168	1,174	1,158	1,102	1,078	1,056	1,052	1,028	1,026	1,012	908	868	826	850	824
RB211 Total	2,031	2,043	2,000	1,977	1,942	1,817	1,733	1,703	1,675	1,564	1,484	1,367	1,213	1,149	1,095	1,095	1,037
Trent 500	120	212	292	380	412	432	464	492	480	452	440	388	352	336	280	284	240
Trent 700	234	264	306	364	422	492	590	696	816	948	1,114	1,288	1,388	1,460	1,590	1,636	1,606
Trent 800	376	392	406	430	444	442	448	450	444	446	436	422	362	352	330	334	320
Trent 900	0	0	0	0	4	36	60	80	140	208	244	280	304	332	360	400	428
Trent 1000	0	0	0	0	0	0	0	0	6	44	84	164	260	384	476	546	658
Trent XWB-84	0	0	0	0	0	0	0	0	0	0	0	2	30	124	278	432	590
Trent XWB-97	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	70
Trent 7000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	80
Trent	730	868	1,004	1,174	1,282	1,402	1,562	1,718	1,886	2,098	2,318	2,544	2,696	2,988	3,314	3,662	3,992
Civil Large Engines	2,761	2,911	3,004	3,151	3,224	3,219	3,295	3,421	3,561	3,662	3,802	3,911	3,909	4,137	4,409	4,757	5,029
Spey	1,090	1,024	992	946	914	864	802	760	702	632	580	506	460	430	404	360	284
Tay	1,599	1,572	1,623	1,755	1,769	1,825	1,861	1,869	1,917	1,969	2,019	2,011	2,035	2,027	1,993	2,009	1,946
AE3007	1,934	2,164	2,328	2,458	2,564	2,520	2,528	2,562	2,550	2,544	2,598	2,534	2,468	2,326	2,302	2,448	2,472
BR700	864	990	1,144	1,272	1,446	1,560	1,752	1,910	2,128	2,362	2,696	2,964	3,388	3,642	3,858	4,098	4,322
Civil Small Engines	5,487	5,750	6,087	6,431	6,693	6,769	6,943	7,101	7,297	7,507	7,893	8,015	8,351	8,425	8,557	8,915	9,024
V2500*	930	1,054	1,196	1,348	1,492	1,613	1,722	1,852	2,002	0	0	0	0	0	0	0	(
Civil Total	9,178	9,715	10,287	10,930	11,409	11,601	11,960	12,374	12,860	11,169	11,695	11,926	12,260	12,562	12,966	13,672	14,053
Fleet growth	8%	6%	6%	6%	4%	2%	3%	3%	4%	-13%	5%	2%	3%	2%	3%	5%	3%

^{* 50%} of the total V2500 fleet included

^{**} In-service stalled engine base is net of retirements and excludes aircraft which are parked. Trent 1000 AOG aircraft excluded



Civil in-service thrust base (millions lbs)**

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
By engine	Thrust per engine (lbs)																	
RB211 22B	60,000	3	2	2	1	1	1	1	1	0	0	0	0	0	0	0	0	(
RB211 524	60,000	50	49	48	47	46	42	39	38	37	32	27	21	18	17	16	15	13
RB211 535	40,000	46	48	47	47	46	44	43	42	42	41	41	40	36	35	33	34	33
RB211 Total		99	99	97	95	93	87	82	81	79	73	69	62	55	52	49	49	46
Trent 500	56,000	7	12	16	21	23	24	26	28	27	25	25	22	20	19	16	16	13
Trent 700	72,000	17	19	22	26	30	35	42	50	59	68	80	93	100	105	114	118	116
Trent 800	92,000	35	36	37	40	41	41	41	41	41	41	40	39	33	32	30	31	29
Trent 900	70,000	0	0	0	0	0	3	4	6	10	15	17	20	21	23	25	28	30
Trent 1000	71,000	0	0	0	0	0	0	0	0	0	3	6	12	18	27	34	39	47
Trent XWB-84	84,000	0	0	0	0	0	0	0	0	0	0	0	0	3	10	23	36	50
Trent XWB-97	97,000														0	0	3	7
Trent 7000	72,000														0	0	0	6
Trent		58	67	76	87	95	103	114	125	137	152	168	185	196	217	243	270	297
Civil Large Engines		157	166	172	182	188	190	196	206	216	226	237	247	251	269	292	319	343
Spey	11,000	12	11	11	10	10	10	9	8	8	7	6	6	5	5	4	4	3
Tay	15,000	24	24	24	26	27	27	28	28	29	30	30	30	31	30	30	30	29
AE3007	7,500	15	16	17	18	19	19	19	19	19	19	19	19	19	17	17	18	18
BR700	15,000	13	15	17	19	22	23	26	29	32	35	40	44	51	55	58	61	65
Civil Small Engines		63	66	70	74	78	79	82	84	88	91	97	99	105	107	109	114	116
V2500*	27,500	26	29	33	37	41	44	47	51	55	0	0	0	0	0	0	0	(
Civil Total		246	261	275	294	306	313	326	341	359	317	333	346	356	376	402	433	459
Thrust Growth		9%	6%	6%	7%	4%	2%	4%	5%	5%	-12%	5%	4%	3%	6%	7%	8%	6%

^{* 50%} of the total V2500 fleet included

^{**} Inservice stalled engine base is net of retirements and excludes aircraft which are parked. Trent 1000 AOG aircraft excluded



Defence aero engine deliveries

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Transport	218	265	289	305	296	239	266	286	323	311	262
Helicopters	323	343	412	438	479	418	307	278	226	213	200
Combat	103	102	103	113	108	81	69	74	38	23	27
Trainers/Other	18	0	10	8	10	6	7	23	18	13	10
Total	662	710	814	864	893	744	649	661	605	560	499



Safe harbour statement

This announcement contains certain forward-looking statements. These forwardlooking statements can be identified by the fact that they do not relate only to historical or current facts. In particular, all statements that express forecasts, expectations and projections with respect to future matters, including trends in results of operations, margins, growth rates, overall market trends, the impact of interest or exchange rates, the availability of financing to the Company, anticipated cost savings or synergies and the completion of the Company's strategic transactions, are forward-looking statements. By their nature, these statements and forecasts involve risk and uncertainty because they relate to events and depend on circumstances that may or may not occur in the future. There are a number of factors that could cause actual results or developments to differ materially from those expressed or implied by these forward-looking statements and forecasts. The forward-looking statements reflect the knowledge and information available at the date of preparation of this announcement, and will not be updated during the year. Nothing in this announcement should be construed as a profit forecast. All figures are on an underlying basis unless otherwise stated - see note 2 of the Financial Review section of the 2019 Full Year Results Statement for the definition