2019 Half Year Results

Data Appendix

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
- $35 billion GBP:USD hedge book
- Hedge book average rate is £/$1.54
- $5 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	~£8 million	~£2 million
EUR	~£21 million	~£3 million

Foreign exchange:
Translational impact

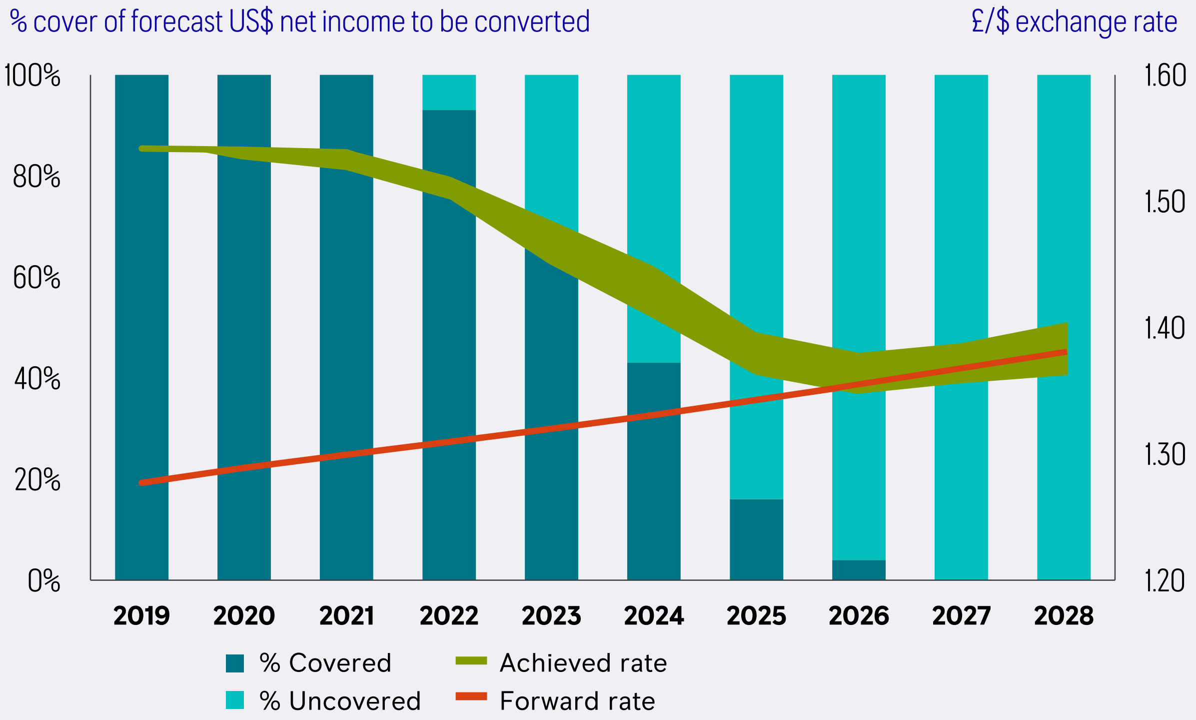
The impact of translational foreign exchange is driven by period average spot rates

H1 2018 vs. H1 2019 £m	EXPOSURE Revenue	EXPOSURE Profit	UNDERLYING REVENUE IMPACT Inc FX	UNDERLYING REVENUE IMPACT FX	UNDERLYING OPERATING PROFIT IMPACT Inc FX	UNDERLYING OPERATING PROFIT IMPACT FX
Group			7,353	41	175	9
Civil Aerospace	USD, EUR	USD, EUR	4,018	6	(49)	6
Power Systems	EUR, USD	EUR, USD	1,553	(9)	96	(1)
Defence	USD	USD	1,494	47	173	8
ITP	EUR, USD	EUR, USD	457	(6)	32	(1)
Non-core/Other*	NOK, EUR, USD	EUR, USD	169	3	(77)	(3)

Period average rates	**H1 2019**	H1 2018
USD	1.29	1.37
EUR	1.15	1.14
NOK	11.14	10.90

* Including Commercial Marine, L'Orange, other smaller businesses and intersegment eliminations

USD hedge book:
Looking forward



Group balance sheet

Will be impacted by
IFRS 16
from 2019

Debt increase of
£2.2bn

IFRS 16

- Effective from 1 January 2019 with adjustment to reserves on that date
- Property and aircraft engines most material: c.£1.7bn engine assets added to balance sheet
- Marginal impact on profit before tax

Impact of IFRS 16

Lease asset
£2.2bn ↑

Lease liability
£2.2bn ↑

PBT
Modestly negative ↔

No change to cash flows

Pensions

UK Plan continues to have a strong surplus

£1.1bn

UK pensioner risk transfer completed in H1

Will result in permanent reduction of £4bn of liabilities in H2

UK plan

- 84% of gross liabilities and 94% of gross assets.
- £13bn of assets and surplus of £1.1bn (IAS 19 basis*). £803m reduction in surplus since 31 Dec 2018 includes c£600m actuarial loss arising from the purchase of a bulk annuity contract with Legal & General.
- Bulk annuity contract executed in June fully insuring all benefits relating to 33k retirees. Premium of £4.6bn transferred to Legal & General, covering liabilities of £4bn (measured on an IAS 19 basis*). The bulk annuity contract is expected to be converted into a 'buy out' before end of 2019 and reported assets and liabilities will reduce by £4bn at that time.
- Plan was closed to new hires in 2007.
- 95% of assets in low risk investments to match liabilities - key to protecting our funding position in low yield environment.
- Next statutory funding valuation due on 31 March 2020. Current agreement with Trustee allows a proportion of surplus to be used to reduce future service cost until Dec 2020.
- Cash contributions:

2017 £174m
2018 £117m
2019 £174m *(projected & includes one time special £34.5m contribution to enable the pensioner risk transfer to proceed)*

Overseas plans

- 16% of gross liabilities and 6% of gross assets.
- Deficit of £1.5bn (IAS 19 basis) principally made up of:
  - unfunded US healthcare/pension plans (£539m) and
  - German unfunded pension plans (£838m)
- Cash contributions:

2017 £75m
2018 £64m
2019 £80m (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 aligned 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 IAS 19 valuations

Core business R&D

Net R&D
cash spend down 2%
£511m

FY 2019:
net R&D spend
expected to reduce by
c£100m v 2018

Commitment to investing in our future – spend remains well above peers

£m	**H1 2019**	H1 2018	**Organic Change**
Gross R&D	**677**	663	**+2%**
Third party contributions	(166)	(145)	+14%
Net R&D cash spend	**511**	518	**-2%**
Capitalised	(220)	(239)	-8%
Amortisation & impairment	23	17	+22%
Net R&D P&L charge	**314**	296	**+5%**

£511m net R&D cash spend in H1 2019, down 2%

- Around two-thirds R&D spend in **Civil Aerospace** with increased investment in UltraFan demonstrator and associated enabling technologies
- Increase spend in **Defence** on future programmes in transport and combat
- **Power Systems** R&D focus on future engines and electrification strategy

Trent engine products

Leading widebody market share

£m	Airframe	Market share*	Engines in service	**Engines on order**
Trent 7000	Airbus A330neo	100%	32	561
Trent XWB	Airbus A350	100%	562	1,232
Trent 1000	Boeing 787	35%	602	291
Trent 900	Airbus A380	48%	416	30
Trent 800	Boeing 777	40%	324	0
Trent 700	Airbus A330	61%	1,652	22
Trent 500	Airbus A340	100%	244	0
			3,832	**2,136**

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

Civil engine deliveries

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	**2018**	**H1 2019**
By engine																		
RB211 22B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RB211 524	4	2	5	7	0	5	4	0	0	0	0	0	0	0	0	0	0	0
RB211 535	26	14	6	0	2	0	1	1	0	0	0	0	0	0	0	0	0	0
RB211 Total	**30**	**16**	**11**	**7**	**2**	**5**	**5**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Trent 500	37	88	115	88	97	45	45	57	16	1	8	0	0	0	0	0	0	0
Trent 700	30	35	30	54	59	75	88	125	139	135	157	181	184	140	88	110	63	7
Trent 800	54	30	15	21	25	10	7	9	0	0	0	0	0	0	0	0	0	0
Trent 900					20	10	48	33	30	70	64	42	35	6	30	67	44	17
Trent 1000										18	46	59	79	106	122	109	125	60
Trent XWB-84													13	56	117	196	184	86
Trent XWB-97																1	45	33
Trent 7000																	8	54
Trent	**121**	**153**	**160**	**163**	**201**	**140**	**188**	**224**	**185**	**224**	**275**	**282**	**311**	**308**	**357**	**483**	**469**	**257**
Civil Large Engines	**151**	**169**	**171**	**170**	**203**	**145**	**193**	**225**	**185**	**224**	**275**	**282**	**311**	**308**	**357**	**483**	**469**	**257**
Tay	66	48	43	55	66	80	92	68	51	57	60	67	46	38	28	2	0	0
AE3007	288	217	242	168	113	135	135	32	55	31	43	78	48	34	20	8	10	4
BR700	127	96	131	161	155	183	216	172	184	232	290	326	334	332	244	190	205	107
Pearl 15																	2	1
Civil Small Engines	**481**	**361**	**416**	**384**	**334**	**398**	**443**	**272**	**290**	**320**	**393**	**471**	**428**	**404**	**292**	**200**	**217**	**112**
V2500*	224	216	237	327	319	308	351	347	371	418	220	0	0	0	0	0	0	0
Civil Total	**856**	**746**	**824**	**881**	**856**	**851**	**987**	**844**	**846**	**962**	**888**	**753**	**739**	**712**	**649**	**683**	**686**	**369**

* 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**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	**2018**	**H1 2019**
By engine																		
RB211 22B	48	48	36	36	12	15	9	12	9	6	6	3	3	3	3	3	3	3
RB211 524	794	829	815	796	791	769	706	643	638	617	530	455	352	302	278	266	242	230
RB211 535	1,108	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	832
RB211 Total	**1,950**	**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**	**1,065**
Trent 500	32	120	212	292	380	412	432	464	492	480	452	440	388	352	336	280	284	244
Trent 700	206	234	264	306	364	422	492	590	696	816	948	1,114	1,288	1,388	1,460	1,590	1,636	1652
Trent 800	344	376	392	406	430	444	442	448	450	444	446	436	422	362	352	330	334	324
Trent 900	0	0	0	0	0	4	36	60	80	140	208	244	280	304	332	360	400	416
Trent 1000	0	0	0	0	0	0	0	0	0	6	44	84	164	260	384	476	546	602
Trent XWB-84	0	0	0	0	0	0	0	0	0	0	0	0	2	30	124	278	432	520
Trent XWB-97	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	42
Trent 7000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	32
Trent	**582**	**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**	**3,832**
Civil Large Engines	**2,532**	**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**	**4,897**
Spey	1,122	1,090	1,024	992	946	914	864	802	760	702	632	580	506	460	430	404	360	326
Tay	1,570	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	1,972
AE3007	1,702	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	2,470
BR700	704	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	4,190
Civil Small Engines	**5,098**	**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**	**8,958**
V2500*	855	930	1,054	1,196	1,348	1,492	1,613	1,722	1,852	2,002	0	0	0	0	0	0	0	0
Civil Total	**8,485**	**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**	**13,855**

* 50% of the total V2500 fleet included

** Installed engine base is net of retirements and excludes aircraft which are parked or in storage

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

By engine	Thrust per engine (lbs)	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	H1 2019
RB211 22B	60,000	3	3	2	2	1	1	1	1	1	0	0	0	0	0	0	0	0	0
RB211 524	60,000	48	50	49	48	47	46	42	39	38	37	32	27	21	18	17	16	15	14
RB211 535	40,000	44	46	48	47	47	46	44	43	42	42	41	41	40	36	35	33	34	33
RB211 Total		**95**	**99**	**99**	**97**	**95**	**93**	**87**	**82**	**81**	**79**	**73**	**69**	**62**	**55**	**52**	**49**	**49**	**47**
Trent 500	56,000	2	7	12	16	21	23	24	26	28	27	25	25	22	20	19	16	16	14
Trent 700	72,000	15	17	19	22	26	30	35	42	50	59	68	80	93	100	105	114	118	119
Trent 800	92,000	32	35	36	37	40	41	41	41	41	41	41	40	39	33	32	30	31	30
Trent 900	70,000	0	0	0	0	0	0	3	4	6	10	15	17	20	21	23	25	28	29
Trent 1000	71,000	0	0	0	0	0	0	0	0	0	0	3	6	12	18	27	34	39	43
Trent XWB-84	84,000	0	0	0	0	0	0	0	0	0	0	0	0	0	3	10	23	36	44
Trent XWB-97	97,000															0	0	3	4
Trent 7000	72,000															0	0	0	2
Trent		**48**	**58**	**67**	**76**	**87**	**95**	**103**	**114**	**125**	**137**	**152**	**168**	**185**	**196**	**217**	**243**	**270**	**284**
Civil Large Engines		**143**	**157**	**166**	**172**	**182**	**188**	**190**	**196**	**206**	**216**	**226**	**237**	**247**	**251**	**269**	**292**	**319**	**332**
Spey	11,000	12	12	11	11	10	10	10	9	8	8	7	6	6	5	5	4	4	4
Tay	15,000	24	24	24	24	26	27	27	28	28	29	30	30	30	31	30	30	30	30
AE3007	7,500	13	15	16	17	18	19	19	19	19	19	19	19	19	19	17	17	18	19
BR700	15,000	11	13	15	17	19	22	23	26	29	32	35	40	44	51	55	58	61	63
Civil Small Engines		**59**	**63**	**66**	**70**	**74**	**78**	**79**	**82**	**84**	**88**	**91**	**97**	**99**	**105**	**107**	**109**	**114**	**115**
V2500*	27,500	24	26	29	33	37	41	44	47	51	55	0	0	0	0	0	0	0	0
Civil Total		**226**	**246**	**261**	**275**	**294**	**306**	**313**	**326**	**341**	**359**	**317**	**333**	**346**	**356**	**376**	**402**	**433**	**446**
Fleet Growth			**9%**	**6%**	**6%**	**7%**	**4%**	**2%**	**4%**	**5%**	**5%**	**-12%**	**5%**	**4%**	**3%**	**6%**	**7%**	**8%**	**3%**

* 50% of the total V2500 fleet included

** Installed engine base is net of retirements and excludes aircraft which are parked or in storage

Defence aero engine deliveries

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	**H1 2019**
Transport	218	265	289	305	296	239	266	286	323	311	142
Helicopters	323	343	412	438	479	418	307	278	226	213	81
Combat	103	102	103	113	108	81	69	74	38	23	9
Trainers/Other	18	0	10	8	10	6	7	23	18	13	2
Total	**710**	**710**	**814**	**864**	**893**	**744**	**649**	**661**	**605**	**560**	**234**

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Safe harbour statement

This announcement contains certain forward-looking statements. These forward-looking 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 Half Year Results Statement for the definition.