

**Form 604**Corporations Act 2001  
Section 671B**Notice of change of interests of substantial holder**To Company Name/Scheme  
ACN/ARSNRio Tinto Limited  
004 458 404**1. Details of substantial holder (1)**

Name Vanguard Group (The Vanguard Group, Inc. and its controlled entities including those listed in Annexure A)

ACN/ARSN (if applicable) N/A

There was a change in the interests of the substantial holder on

12 March 2020

The previous notice was given to the company on 18 July 2018

The previous notice was dated

18 July 2018

**2. Previous and present voting power**

The total number of votes attached to all the voting shares in the company or voting interests in the scheme that the substantial holder or an associate (2) had a relevant interest (3) in when last required, and when now required, to give a substantial holding notice to the company or scheme, are as follows:

Class of securities (4)	Previous notice		Present notice	
	Person's votes	Voting power (5)	Person's votes	Voting power (5)
Ordinary	22,304,083	6.008%	20,623,906	5.001%

**3. Changes in relevant interests**

Particulars of each change in, or change in the nature of, a relevant interest of the substantial holder or an associate in voting securities of the company or scheme, since the substantial holder was last required to give a substantial holding notice to the company or scheme are as follows:

Date of change	Person whose relevant interest changed	Nature of change (6)	Consideration given in relation to change (7)	Class and number of securities affected	Person's votes affected
See Annexure A					

**4. Present relevant interests**

Particulars of each relevant interest of the substantial holder in voting securities after the change are as follows:

Holder of relevant interest	Registered holder of securities	Person entitled to be registered as holder (8)	Nature of relevant interest (6)	Class and number of securities	Person's votes
Vanguard Group	BNY Mellon	Various funds and other accounts of Vanguard Group	Vanguard Group is the manager of various Mutual funds and accounts and in that capacity has the power to dispose of the shares. The other members of Vanguard Group have a relevant interest under section 608(3) of the Corporations Act.	Ordinary – 68,251	68,251
Vanguard Group	Citibank	Various funds and other accounts of Vanguard Group	Vanguard Group is the manager of various Mutual funds and accounts and in that capacity has the power to dispose of the shares. The other members of Vanguard Group have a relevant interest under section 608(3) of the Corporations Act.	Ordinary – 7,915	7,915
Vanguard Group	JP Morgan Chase Bank, N.A.	Various funds and other accounts of Vanguard Group	Vanguard Group is the manager of various Mutual funds and accounts and in that capacity has the power to dispose of the shares. The other members of Vanguard Group have a relevant interest under section 608(3) of the Corporations Act.	Ordinary – 11,530,009	11,530,009
Vanguard Group	Brown Brothers Harriman	Various funds and other accounts of Vanguard Group	Vanguard Group is the manager of various Mutual funds and accounts and in that capacity has the power to dispose of the shares. The other members of Vanguard Group have a relevant interest under section 608(3) of the Corporations Act.	Ordinary – 1,972,209	1,972,209

Vanguard Group	State Street Bank and Trust Company	Various funds and other accounts of Vanguard Group	Vanguard Group is the manager of various Mutual funds and accounts and in that capacity has the power to dispose of the shares. The other members of Vanguard Group have a relevant interest under section 608(3) of the Corporations Act.	Ordinary – 2,784,454	2,784,454
Vanguard Group	Various others	Various funds and other accounts of Vanguard Group	Vanguard Group is the manager of various Mutual funds and accounts and in that capacity has the power to dispose of the shares. The other members of Vanguard Group have a relevant interest under section 608(3) of the Corporations Act.	Ordinary – 5,941,245	5,941,245

#### 5. Changes in association

The persons who have become associates (2) of, ceased to be associates of, or have changed the nature of their association (9) with, the substantial holder in relation to voting interests in the company or scheme are as follows:

Name and ACN/ARSN (if applicable)	Nature of association
N/A	N/A

#### 6. Addresses

The addresses of persons named in this form are as follows:

Name	Address
Vanguard Group	P.O. Box 2600, V26 Valley Forge, PA 19482 USA

#### Signature

print name Shawn Acker capacity Compliance Manager

sign here  date 17 March 2020

#### DIRECTIONS

- (1) If there are a number of substantial holders with similar or related relevant interests (eg. a corporation and its related corporations, or the manager and trustee of an equity trust), the names could be included in an annexure to the form. If the relevant interests of a group of persons are essentially similar, they may be referred to throughout the form as a specifically named group if the membership of each group, with the names and addresses of members is clearly set out in paragraph 6 of the form.
  - (2) See the definition of "associate" in section 9 of the Corporations Act 2001.
  - (3) See the definition of "relevant interest" in sections 608 and 671B(7) of the Corporations Act 2001.
  - (4) The voting shares of a company constitute one class unless divided into separate classes.
  - (5) The person's votes divided by the total votes in the body corporate or scheme multiplied by 100.
  - (6) Include details of:
    - (a) any relevant agreement or other circumstances because of which the change in relevant interest occurred. If subsection 671B(4) applies, a copy of any document setting out the terms of any relevant agreement, and a statement by the person giving full and accurate details of any contract, scheme or arrangement, must accompany this form, together with a written statement certifying this contract, scheme or arrangement; and
    - (b) any qualification of the power of a person to exercise, control the exercise of, or influence the exercise of, the voting powers or disposal of the securities to which the relevant interest relates (indicating clearly the particular securities to which the qualification applies).
- See the definition of "relevant agreement" in section 9 of the Corporations Act 2001.
- (7) Details of the consideration must include any and all benefits, money and other, that any person from whom a relevant interest was acquired has, or may, become entitled to receive in relation to that acquisition. Details must be included even if the benefit is conditional on the happening or not of a contingency. Details must be included of any benefit paid on behalf of the substantial holder or its associate in relation to the acquisitions, even if they are not paid directly to the person from whom the relevant interest was acquired.
  - (8) If the substantial holder is unable to determine the identity of the person (eg. if the relevant interest arises because of an option) write "unknown".
  - (9) Give details, if appropriate, of the present association and any change in that association since the last substantial holding notice.

To Company  
ACN/ARSN

Rio Tinto Limited  
004 458 404

Substantial Holder Name  
ACN/ARSN

Vanguard Group  
N/A

Date of change	Person whose relevant interest changed	Nature of Change(6)	Consideration given in relation to change(7)	Class	Number of securities affected	Person's votes affected
17-Jul-2018	The Vanguard Group, Inc.	BUY	79.16	Ordinary	223	223
19-Jul-2018	The Vanguard Group, Inc.	BUY	80.35	Ordinary	16,548	16,548
19-Jul-2018	The Vanguard Group, Inc.	BUY	80.62	Ordinary	150	150
20-Jul-2018	The Vanguard Group, Inc.	BUY	80.13	Ordinary	780	780
20-Jul-2018	The Vanguard Group, Inc.	SELL	80.08	Ordinary	(1,994)	(1,994)
20-Jul-2018	The Vanguard Group, Inc.	BUY	80.08	Ordinary	2,667	2,667
23-Jul-2018	The Vanguard Group, Inc.	SELL	79.85	Ordinary	(1,182)	(1,182)
24-Jul-2018	The Vanguard Group, Inc.	BUY	80.30	Ordinary	8,705	8,705
24-Jul-2018	The Vanguard Group, Inc.	SELL	80.05	Ordinary	(180)	(180)
24-Jul-2018	The Vanguard Group, Inc.	BUY	80.90	Ordinary	150	150
25-Jul-2018	The Vanguard Group, Inc.	SELL	82.84	Ordinary	(5,910)	(5,910)
25-Jul-2018	The Vanguard Group, Inc.	SELL	82.84	Ordinary	(788)	(788)
25-Jul-2018	The Vanguard Group, Inc.	SELL	82.84	Ordinary	(1,182)	(1,182)
25-Jul-2018	The Vanguard Group, Inc.	SELL	82.10	Ordinary	(294)	(294)
25-Jul-2018	The Vanguard Group, Inc.	BUY	82.10	Ordinary	230	230
27-Jul-2018	The Vanguard Group, Inc.	SELL	81.38	Ordinary	(2,204)	(2,204)
30-Jul-2018	The Vanguard Group, Inc.	SELL	80.45	Ordinary	(2,004)	(2,004)
31-Jul-2018	The Vanguard Group, Inc.	BUY	80.94	Ordinary	13,343	13,343
31-Jul-2018	The Vanguard Group, Inc.	SELL	81.35	Ordinary	(1,090)	(1,090)
1-Aug-2018	The Vanguard Group, Inc.	BUY	81.57	Ordinary	10,167	10,167
1-Aug-2018	The Vanguard Group, Inc.	SELL	81.71	Ordinary	(114)	(114)
2-Aug-2018	The Vanguard Group, Inc.	SELL	78.03	Ordinary	(3,940)	(3,940)
3-Aug-2018	The Vanguard Group, Inc.	BUY	77.52	Ordinary	16,399	16,399
3-Aug-2018	The Vanguard Group, Inc.	BUY	76.54	Ordinary	307	307
3-Aug-2018	The Vanguard Group, Inc.	SELL	76.54	Ordinary	(1,284)	(1,284)
7-Aug-2018	The Vanguard Group, Inc.	BUY	76.56	Ordinary	9,247	9,247
8-Aug-2018	The Vanguard Group, Inc.	BUY	76.89	Ordinary	13,619	13,619
8-Aug-2018	The Vanguard Group, Inc.	BUY	76.89	Ordinary	9,717	9,717
8-Aug-2018	The Vanguard Group, Inc.	SELL	77.10	Ordinary	(111)	(111)
9-Aug-2018	The Vanguard Group, Inc.	SELL	75.72	Ordinary	(1,962)	(1,962)
10-Aug-2018	The Vanguard Group, Inc.	SELL	75.15	Ordinary	(9,456)	(9,456)
10-Aug-2018	The Vanguard Group, Inc.	SELL	75.15	Ordinary	(1,962)	(1,962)
10-Aug-2018	The Vanguard Group, Inc.	SELL	75.15	Ordinary	(1,090)	(1,090)
10-Aug-2018	The Vanguard Group, Inc.	SELL	75.37	Ordinary	(8,161)	(8,161)
13-Aug-2018	The Vanguard Group, Inc.	BUY	74.20	Ordinary	580	580
14-Aug-2018	The Vanguard Group, Inc.	BUY	74.58	Ordinary	9,251	9,251
14-Aug-2018	The Vanguard Group, Inc.	SELL	74.22	Ordinary	(3,924)	(3,924)
15-Aug-2018	The Vanguard Group, Inc.	SELL	73.25	Ordinary	(4,728)	(4,728)
15-Aug-2018	The Vanguard Group, Inc.	BUY	74.28	Ordinary	9,423	9,423
16-Aug-2018	The Vanguard Group, Inc.	BUY	71.45	Ordinary	10,677	10,677
16-Aug-2018	The Vanguard Group, Inc.	BUY	72.89	Ordinary	819	819
16-Aug-2018	The Vanguard Group, Inc.	SELL	72.92	Ordinary	(9,075)	(9,075)
16-Aug-2018	The Vanguard Group, Inc.	BUY	71.45	Ordinary	55	55
17-Aug-2018	The Vanguard Group, Inc.	BUY	72.84	Ordinary	14,929	14,929
17-Aug-2018	The Vanguard Group, Inc.	BUY	73.32	Ordinary	546	546
20-Aug-2018	The Vanguard Group, Inc.	BUY	73.50	Ordinary	18,358	18,358
20-Aug-2018	The Vanguard Group, Inc.	BUY	73.50	Ordinary	5,810	5,810
21-Aug-2018	The Vanguard Group, Inc.	BUY	73.13	Ordinary	872	872
21-Aug-2018	The Vanguard Group, Inc.	BUY	73.00	Ordinary	313	313
21-Aug-2018	The Vanguard Group, Inc.	BUY	73.00	Ordinary	383	383
24-Aug-2018	The Vanguard Group, Inc.	BUY	72.18	Ordinary	858	858
24-Aug-2018	The Vanguard Group, Inc.	BUY	71.93	Ordinary	342	342
27-Aug-2018	The Vanguard Group, Inc.	BUY	72.18	Ordinary	2,788	2,788
27-Aug-2018	The Vanguard Group, Inc.	BUY	73.08	Ordinary	1,090	1,090
28-Aug-2018	The Vanguard Group, Inc.	BUY	73.48	Ordinary	150	150
30-Aug-2018	The Vanguard Group, Inc.	BUY	73.14	Ordinary	62	62
31-Aug-2018	The Vanguard Group, Inc.	SELL	72.71	Ordinary	(977)	(977)
5-Sep-2018	The Vanguard Group, Inc.	BUY	70.50	Ordinary	20,911	20,911
5-Sep-2018	The Vanguard Group, Inc.	SELL	70.68	Ordinary	(97)	(97)
5-Sep-2018	The Vanguard Group, Inc.	BUY	70.50	Ordinary	1,950	1,950
5-Sep-2018	The Vanguard Group, Inc.	SELL	69.68	Ordinary	(314)	(314)
6-Sep-2018	The Vanguard Group, Inc.	BUY	69.62	Ordinary	10,903	10,903

Date of change	Person whose relevant interest changed	Nature of Change(6)	Consideration given in relation to change(7)	Class	Number of securities affected	Person's votes affected
7-Sep-2018	The Vanguard Group, Inc.	BUY	70.29	Ordinary	10,542	10,542
7-Sep-2018	The Vanguard Group, Inc.	BUY	71.43	Ordinary	5,920	5,920
7-Sep-2018	The Vanguard Group, Inc.	BUY	71.43	Ordinary	1,784	1,784
7-Sep-2018	The Vanguard Group, Inc.	BUY	71.43	Ordinary	654	654
7-Sep-2018	The Vanguard Group, Inc.	BUY	71.43	Ordinary	2,180	2,180
7-Sep-2018	The Vanguard Group, Inc.	SELL	71.50	Ordinary	(7,059)	(7,059)
7-Sep-2018	The Vanguard Group, Inc.	BUY	71.50	Ordinary	142	142
10-Sep-2018	The Vanguard Group, Inc.	BUY	70.95	Ordinary	757	757
11-Sep-2018	The Vanguard Group, Inc.	BUY	71.23	Ordinary	36,215	36,215
12-Sep-2018	The Vanguard Group, Inc.	BUY	70.83	Ordinary	9,885	9,885
12-Sep-2018	The Vanguard Group, Inc.	BUY	71.27	Ordinary	2,676	2,676
12-Sep-2018	The Vanguard Group, Inc.	BUY	71.27	Ordinary	2,180	2,180
12-Sep-2018	The Vanguard Group, Inc.	SELL	70.67	Ordinary	(169)	(169)
12-Sep-2018	The Vanguard Group, Inc.	SELL	71.06	Ordinary	(27,312)	(27,312)
13-Sep-2018	The Vanguard Group, Inc.	BUY	72.27	Ordinary	1,198	1,198
14-Sep-2018	The Vanguard Group, Inc.	BUY	72.97	Ordinary	25,159	25,159
14-Sep-2018	The Vanguard Group, Inc.	BUY	72.97	Ordinary	3,401	3,401
17-Sep-2018	The Vanguard Group, Inc.	BUY	73.01	Ordinary	3,398	3,398
18-Sep-2018	The Vanguard Group, Inc.	SELL	72.25	Ordinary	(645)	(645)
20-Sep-2018	The Vanguard Group, Inc.	BUY	77.00	Ordinary	2,746	2,746
20-Sep-2018	The Vanguard Group, Inc.	BUY	78.10	Ordinary	507	507
21-Sep-2018	The Vanguard Group, Inc.	SELL	79.45	Ordinary	(2,083)	(2,083)
21-Sep-2018	The Vanguard Group, Inc.	SELL	79.45	Ordinary	(42,867)	(42,867)
21-Sep-2018	The Vanguard Group, Inc.	SELL	79.45	Ordinary	(20,401)	(20,401)
21-Sep-2018	The Vanguard Group, Inc.	SELL	79.45	Ordinary	(4,258)	(4,258)
21-Sep-2018	The Vanguard Group, Inc.	BUY	79.49	Ordinary	667	667
21-Sep-2018	The Vanguard Group, Inc.	SELL	79.45	Ordinary	(3,621)	(3,621)
21-Sep-2018	The Vanguard Group, Inc.	BUY	79.49	Ordinary	4	4
21-Sep-2018	The Vanguard Group, Inc.	SELL	79.45	Ordinary	(283)	(283)
25-Sep-2018	The Vanguard Group, Inc.	BUY	77.80	Ordinary	5,283	5,283
25-Sep-2018	The Vanguard Group, Inc.	BUY	77.80	Ordinary	108	108
26-Sep-2018	The Vanguard Group, Inc.	BUY	79.44	Ordinary	3,520	3,520
26-Sep-2018	The Vanguard Group, Inc.	BUY	79.44	Ordinary	4,400	4,400
26-Sep-2018	The Vanguard Group, Inc.	BUY	79.44	Ordinary	1,760	1,760
26-Sep-2018	The Vanguard Group, Inc.	SELL	80.03	Ordinary	(49)	(49)
26-Sep-2018	The Vanguard Group, Inc.	BUY	80.03	Ordinary	99	99
27-Sep-2018	The Vanguard Group, Inc.	SELL	79.49	Ordinary	(2,244)	(2,244)
27-Sep-2018	The Vanguard Group, Inc.	BUY	79.23	Ordinary	276	276
28-Sep-2018	The Vanguard Group, Inc.	BUY	78.76	Ordinary	121	121
1-Oct-2018	The Vanguard Group, Inc.	BUY	78.60	Ordinary	2,640	2,640
2-Oct-2018	The Vanguard Group, Inc.	BUY	78.27	Ordinary	7,040	7,040
2-Oct-2018	The Vanguard Group, Inc.	SELL	78.58	Ordinary	(158)	(158)
2-Oct-2018	The Vanguard Group, Inc.	SELL	78.58	Ordinary	(4,041)	(4,041)
2-Oct-2018	The Vanguard Group, Inc.	SELL	78.27	Ordinary	(1,330)	(1,330)
3-Oct-2018	The Vanguard Group, Inc.	BUY	79.05	Ordinary	2,640	2,640
3-Oct-2018	The Vanguard Group, Inc.	BUY	79.05	Ordinary	1,818	1,818
3-Oct-2018	The Vanguard Group, Inc.	BUY	78.02	Ordinary	759	759
4-Oct-2018	The Vanguard Group, Inc.	BUY	79.72	Ordinary	12,362	12,362
5-Oct-2018	The Vanguard Group, Inc.	BUY	79.96	Ordinary	14,211	14,211
8-Oct-2018	The Vanguard Group, Inc.	BUY	78.60	Ordinary	3,537	3,537
8-Oct-2018	The Vanguard Group, Inc.	BUY	78.76	Ordinary	1,632	1,632
9-Oct-2018	The Vanguard Group, Inc.	BUY	78.48	Ordinary	5,151	5,151
11-Oct-2018	The Vanguard Group, Inc.	BUY	76.68	Ordinary	2,334	2,334
12-Oct-2018	The Vanguard Group, Inc.	BUY	77.21	Ordinary	13,470	13,470
15-Oct-2018	The Vanguard Group, Inc.	BUY	77.40	Ordinary	3,890	3,890
16-Oct-2018	The Vanguard Group, Inc.	BUY	78.45	Ordinary	11,045	11,045
16-Oct-2018	The Vanguard Group, Inc.	SELL	77.82	Ordinary	(169)	(169)
16-Oct-2018	The Vanguard Group, Inc.	BUY	78.70	Ordinary	20	20
16-Oct-2018	The Vanguard Group, Inc.	BUY	78.45	Ordinary	2,941	2,941
17-Oct-2018	The Vanguard Group, Inc.	BUY	79.11	Ordinary	10,699	10,699
17-Oct-2018	The Vanguard Group, Inc.	BUY	78.51	Ordinary	2,942	2,942
18-Oct-2018	The Vanguard Group, Inc.	BUY	78.53	Ordinary	11,436	11,436
18-Oct-2018	The Vanguard Group, Inc.	SELL	78.79	Ordinary	(223)	(223)
19-Oct-2018	The Vanguard Group, Inc.	BUY	77.16	Ordinary	2,334	2,334
19-Oct-2018	The Vanguard Group, Inc.	BUY	77.16	Ordinary	2,640	2,640
22-Oct-2018	The Vanguard Group, Inc.	BUY	78.28	Ordinary	168	168
23-Oct-2018	The Vanguard Group, Inc.	BUY	77.67	Ordinary	2,575	2,575
24-Oct-2018	The Vanguard Group, Inc.	BUY	77.14	Ordinary	9,746	9,746

Date of change	Person whose relevant interest changed	Nature of Change(6)	Consideration given in relation to change(7)	Class	Number of securities affected	Person's votes affected
24-Oct-2018	The Vanguard Group, Inc.	SELL	75.12	Ordinary	(1,428)	(1,428)
25-Oct-2018	The Vanguard Group, Inc.	BUY	75.17	Ordinary	13,444	13,444
25-Oct-2018	The Vanguard Group, Inc.	BUY	75.17	Ordinary	6,708	6,708
25-Oct-2018	The Vanguard Group, Inc.	BUY	73.81	Ordinary	2,200	2,200
26-Oct-2018	The Vanguard Group, Inc.	BUY	74.16	Ordinary	9,688	9,688
26-Oct-2018	The Vanguard Group, Inc.	BUY	74.47	Ordinary	11,437	11,437
26-Oct-2018	The Vanguard Group, Inc.	BUY	74.16	Ordinary	4,451	4,451
26-Oct-2018	The Vanguard Group, Inc.	BUY	74.16	Ordinary	1,410	1,410
26-Oct-2018	The Vanguard Group, Inc.	BUY	74.47	Ordinary	98	98
26-Oct-2018	The Vanguard Group, Inc.	BUY	74.16	Ordinary	397	397
26-Oct-2018	The Vanguard Group, Inc.	BUY	74.16	Ordinary	1,036	1,036
30-Oct-2018	The Vanguard Group, Inc.	BUY	76.50	Ordinary	6,598	6,598
31-Oct-2018	The Vanguard Group, Inc.	BUY	76.09	Ordinary	14,609	14,609
31-Oct-2018	The Vanguard Group, Inc.	BUY	76.09	Ordinary	4,587	4,587
31-Oct-2018	The Vanguard Group, Inc.	BUY	76.84	Ordinary	3,080	3,080
31-Oct-2018	The Vanguard Group, Inc.	SELL	76.40	Ordinary	(1,858)	(1,858)
31-Oct-2018	The Vanguard Group, Inc.	BUY	76.40	Ordinary	115	115
1-Nov-2018	The Vanguard Group, Inc.	BUY	77.99	Ordinary	14,747	14,747
1-Nov-2018	The Vanguard Group, Inc.	BUY	78.74	Ordinary	4,400	4,400
1-Nov-2018	The Vanguard Group, Inc.	SELL	78.00	Ordinary	(438)	(438)
1-Nov-2018	The Vanguard Group, Inc.	SELL	78.00	Ordinary	(27,023)	(27,023)
2-Nov-2018	The Vanguard Group, Inc.	BUY	78.10	Ordinary	3,695	3,695
2-Nov-2018	The Vanguard Group, Inc.	BUY	78.10	Ordinary	2,151	2,151
2-Nov-2018	The Vanguard Group, Inc.	SELL	78.37	Ordinary	(9,272)	(9,272)
5-Nov-2018	The Vanguard Group, Inc.	SELL	79.61	Ordinary	(3,101)	(3,101)
7-Nov-2018	The Vanguard Group, Inc.	BUY	82.22	Ordinary	3,520	3,520
7-Nov-2018	The Vanguard Group, Inc.	BUY	80.93	Ordinary	5,563	5,563
7-Nov-2018	The Vanguard Group, Inc.	BUY	80.93	Ordinary	385	385
8-Nov-2018	The Vanguard Group, Inc.	BUY	82.57	Ordinary	271,003	271,003
9-Nov-2018	The Vanguard Group, Inc.	SELL	81.23	Ordinary	(827)	(827)
12-Nov-2018	The Vanguard Group, Inc.	BUY	81.22	Ordinary	2,640	2,640
12-Nov-2018	The Vanguard Group, Inc.	BUY	81.22	Ordinary	4,896	4,896
13-Nov-2018	The Vanguard Group, Inc.	BUY	81.00	Ordinary	884	884
13-Nov-2018	The Vanguard Group, Inc.	BUY	80.51	Ordinary	1,693	1,693
14-Nov-2018	The Vanguard Group, Inc.	BUY	78.19	Ordinary	3,520	3,520
14-Nov-2018	The Vanguard Group, Inc.	BUY	78.19	Ordinary	2,640	2,640
14-Nov-2018	The Vanguard Group, Inc.	BUY	78.19	Ordinary	1,836	1,836
15-Nov-2018	The Vanguard Group, Inc.	BUY	78.60	Ordinary	1,296	1,296
15-Nov-2018	The Vanguard Group, Inc.	SELL	77.84	Ordinary	(2,897)	(2,897)
15-Nov-2018	The Vanguard Group, Inc.	BUY	78.60	Ordinary	532	532
15-Nov-2018	The Vanguard Group, Inc.	SELL	77.84	Ordinary	(26,490)	(26,490)
15-Nov-2018	The Vanguard Group, Inc.	SELL	77.84	Ordinary	(65,641)	(65,641)
15-Nov-2018	The Vanguard Group, Inc.	BUY	77.84	Ordinary	522	522
15-Nov-2018	The Vanguard Group, Inc.	SELL	77.84	Ordinary	(12,593)	(12,593)
15-Nov-2018	The Vanguard Group, Inc.	SELL	77.84	Ordinary	(75,162)	(75,162)
16-Nov-2018	The Vanguard Group, Inc.	BUY	78.80	Ordinary	17,314	17,314
21-Nov-2018	The Vanguard Group, Inc.	BUY	77.42	Ordinary	3,520	3,520
27-Nov-2018	The Vanguard Group, Inc.	BUY	73.60	Ordinary	299	299
28-Nov-2018	The Vanguard Group, Inc.	BUY	72.83	Ordinary	389	389
28-Nov-2018	The Vanguard Group, Inc.	BUY	72.83	Ordinary	2,334	2,334
28-Nov-2018	The Vanguard Group, Inc.	BUY	72.83	Ordinary	2,200	2,200
28-Nov-2018	The Vanguard Group, Inc.	BUY	72.83	Ordinary	612	612
28-Nov-2018	The Vanguard Group, Inc.	BUY	72.83	Ordinary	1,020	1,020
28-Nov-2018	The Vanguard Group, Inc.	BUY	72.83	Ordinary	2,040	2,040
28-Nov-2018	The Vanguard Group, Inc.	BUY	72.83	Ordinary	2,121	2,121
29-Nov-2018	The Vanguard Group, Inc.	BUY	73.15	Ordinary	3,468	3,468
30-Nov-2018	The Vanguard Group, Inc.	BUY	73.72	Ordinary	8,738	8,738
30-Nov-2018	The Vanguard Group, Inc.	BUY	73.37	Ordinary	6,075	6,075
30-Nov-2018	The Vanguard Group, Inc.	BUY	73.37	Ordinary	2,383	2,383
30-Nov-2018	The Vanguard Group, Inc.	BUY	73.37	Ordinary	4,602	4,602
30-Nov-2018	The Vanguard Group, Inc.	SELL	73.37	Ordinary	(11,315)	(11,315)
3-Dec-2018	The Vanguard Group, Inc.	SELL	74.99	Ordinary	(3,012)	(3,012)
4-Dec-2018	The Vanguard Group, Inc.	BUY	72.28	Ordinary	1,296	1,296
4-Dec-2018	The Vanguard Group, Inc.	BUY	72.28	Ordinary	3,520	3,520
4-Dec-2018	The Vanguard Group, Inc.	BUY	73.51	Ordinary	3,750	3,750
5-Dec-2018	The Vanguard Group, Inc.	BUY	73.71	Ordinary	1,854	1,854
6-Dec-2018	The Vanguard Group, Inc.	BUY	72.39	Ordinary	972	972
6-Dec-2018	The Vanguard Group, Inc.	SELL	72.21	Ordinary	(301)	(301)

Date of change	Person whose relevant interest changed	Nature of Change(6)	Consideration given in relation to change(7)	Class	Number of securities affected	Person's votes affected
6-Dec-2018	The Vanguard Group, Inc.	BUY	72.21	Ordinary	2,501	2,501
7-Dec-2018	The Vanguard Group, Inc.	BUY	72.60	Ordinary	1,879	1,879
7-Dec-2018	The Vanguard Group, Inc.	BUY	71.66	Ordinary	3,080	3,080
7-Dec-2018	The Vanguard Group, Inc.	BUY	71.66	Ordinary	3,520	3,520
10-Dec-2018	The Vanguard Group, Inc.	BUY	71.95	Ordinary	1,987	1,987
11-Dec-2018	The Vanguard Group, Inc.	BUY	72.80	Ordinary	3,520	3,520
11-Dec-2018	The Vanguard Group, Inc.	BUY	72.80	Ordinary	2,640	2,640
12-Dec-2018	The Vanguard Group, Inc.	BUY	73.68	Ordinary	17,909	17,909
12-Dec-2018	The Vanguard Group, Inc.	BUY	74.29	Ordinary	7,480	7,480
12-Dec-2018	The Vanguard Group, Inc.	BUY	74.29	Ordinary	2,640	2,640
12-Dec-2018	The Vanguard Group, Inc.	BUY	74.29	Ordinary	2,640	2,640
12-Dec-2018	The Vanguard Group, Inc.	SELL	73.76	Ordinary	(247)	(247)
12-Dec-2018	The Vanguard Group, Inc.	BUY	74.29	Ordinary	1,212	1,212
13-Dec-2018	The Vanguard Group, Inc.	BUY	75.53	Ordinary	2,121	2,121
13-Dec-2018	The Vanguard Group, Inc.	BUY	75.53	Ordinary	532	532
13-Dec-2018	The Vanguard Group, Inc.	BUY	75.69	Ordinary	36	36
13-Dec-2018	The Vanguard Group, Inc.	BUY	75.69	Ordinary	236	236
14-Dec-2018	The Vanguard Group, Inc.	BUY	74.02	Ordinary	2,640	2,640
14-Dec-2018	The Vanguard Group, Inc.	BUY	74.02	Ordinary	1,224	1,224
14-Dec-2018	The Vanguard Group, Inc.	BUY	74.02	Ordinary	909	909
14-Dec-2018	The Vanguard Group, Inc.	SELL	74.57	Ordinary	(262)	(262)
14-Dec-2018	The Vanguard Group, Inc.	BUY	75.35	Ordinary	83	83
17-Dec-2018	The Vanguard Group, Inc.	BUY	75.10	Ordinary	5,280	5,280
17-Dec-2018	The Vanguard Group, Inc.	BUY	75.10	Ordinary	3,030	3,030
20-Dec-2018	The Vanguard Group, Inc.	BUY	75.18	Ordinary	3,520	3,520
20-Dec-2018	The Vanguard Group, Inc.	SELL	75.11	Ordinary	(2,838)	(2,838)
20-Dec-2018	The Vanguard Group, Inc.	SELL	75.11	Ordinary	(13,964)	(13,964)
20-Dec-2018	The Vanguard Group, Inc.	BUY	75.11	Ordinary	2,865	2,865
21-Dec-2018	The Vanguard Group, Inc.	SELL	75.65	Ordinary	(48,112)	(48,112)
21-Dec-2018	The Vanguard Group, Inc.	SELL	75.65	Ordinary	(635,929)	(635,929)
21-Dec-2018	The Vanguard Group, Inc.	SELL	75.65	Ordinary	(239,945)	(239,945)
21-Dec-2018	The Vanguard Group, Inc.	SELL	75.65	Ordinary	(8,272)	(8,272)
21-Dec-2018	The Vanguard Group, Inc.	SELL	75.66	Ordinary	(226)	(226)
21-Dec-2018	The Vanguard Group, Inc.	SELL	75.65	Ordinary	(65,249)	(65,249)
21-Dec-2018	The Vanguard Group, Inc.	SELL	75.65	Ordinary	(4,617)	(4,617)
21-Dec-2018	The Vanguard Group, Inc.	SELL	75.66	Ordinary	(2,405)	(2,405)
21-Dec-2018	The Vanguard Group, Inc.	SELL	75.65	Ordinary	(536)	(536)
21-Dec-2018	The Vanguard Group, Inc.	SELL	75.65	Ordinary	(745)	(745)
21-Dec-2018	The Vanguard Group, Inc.	SELL	75.65	Ordinary	(85)	(85)
21-Dec-2018	The Vanguard Group, Inc.	SELL	75.65	Ordinary	(425)	(425)
21-Dec-2018	The Vanguard Group, Inc.	SELL	75.65	Ordinary	(5,120)	(5,120)
21-Dec-2018	The Vanguard Group, Inc.	SELL	75.65	Ordinary	(944)	(944)
21-Dec-2018	The Vanguard Group, Inc.	SELL	75.65	Ordinary	(204)	(204)
21-Dec-2018	The Vanguard Group, Inc.	SELL	75.65	Ordinary	(5)	(5)
21-Dec-2018	The Vanguard Group, Inc.	SELL	75.65	Ordinary	(654)	(654)
21-Dec-2018	The Vanguard Group, Inc.	SELL	75.65	Ordinary	(5,653)	(5,653)
21-Dec-2018	The Vanguard Group, Inc.	SELL	75.65	Ordinary	(1,397)	(1,397)
21-Dec-2018	The Vanguard Group, Inc.	SELL	75.65	Ordinary	(193)	(193)
24-Dec-2018	The Vanguard Group, Inc.	BUY	75.89	Ordinary	4,272	4,272
24-Dec-2018	The Vanguard Group, Inc.	BUY	75.89	Ordinary	2,670	2,670
24-Dec-2018	The Vanguard Group, Inc.	BUY	76.00	Ordinary	1,766	1,766
26-Dec-2018	The Vanguard Group, Inc.	BUY	77.58	Ordinary	1,547	1,547
26-Dec-2018	The Vanguard Group, Inc.	BUY	77.58	Ordinary	1,602	1,602
27-Dec-2018	The Vanguard Group, Inc.	BUY	77.90	Ordinary	355	355
27-Dec-2018	The Vanguard Group, Inc.	BUY	77.90	Ordinary	4,005	4,005
27-Dec-2018	The Vanguard Group, Inc.	BUY	77.90	Ordinary	801	801
27-Dec-2018	The Vanguard Group, Inc.	BUY	77.90	Ordinary	1,335	1,335
27-Dec-2018	The Vanguard Group, Inc.	BUY	77.66	Ordinary	18	18
28-Dec-2018	The Vanguard Group, Inc.	BUY	77.75	Ordinary	595	595
28-Dec-2018	The Vanguard Group, Inc.	BUY	77.73	Ordinary	1,607	1,607
31-Dec-2018	The Vanguard Group, Inc.	BUY	78.58	Ordinary	1,704	1,704
2-Jan-2019	The Vanguard Group, Inc.	BUY	76.98	Ordinary	1,278	1,278
2-Jan-2019	The Vanguard Group, Inc.	BUY	76.98	Ordinary	497	497
2-Jan-2019	The Vanguard Group, Inc.	BUY	76.98	Ordinary	833	833
2-Jan-2019	The Vanguard Group, Inc.	BUY	76.98	Ordinary	1,547	1,547
2-Jan-2019	The Vanguard Group, Inc.	BUY	78.05	Ordinary	435	435
2-Jan-2019	The Vanguard Group, Inc.	BUY	76.98	Ordinary	1,869	1,869
2-Jan-2019	The Vanguard Group, Inc.	BUY	76.98	Ordinary	1,602	1,602

Date of change	Person whose relevant interest changed	Nature of Change(6)	Consideration given in relation to change(7)	Class	Number of securities affected	Person's votes affected
2-Jan-2019	The Vanguard Group, Inc.	BUY	76.98	Ordinary	482	482
2-Jan-2019	The Vanguard Group, Inc.	BUY	76.65	Ordinary	2,393	2,393
3-Jan-2019	The Vanguard Group, Inc.	BUY	76.80	Ordinary	44,370	44,370
3-Jan-2019	The Vanguard Group, Inc.	BUY	76.80	Ordinary	3,728	3,728
3-Jan-2019	The Vanguard Group, Inc.	BUY	76.14	Ordinary	1,335	1,335
3-Jan-2019	The Vanguard Group, Inc.	BUY	76.14	Ordinary	482	482
4-Jan-2019	The Vanguard Group, Inc.	BUY	75.22	Ordinary	11,381	11,381
4-Jan-2019	The Vanguard Group, Inc.	BUY	75.22	Ordinary	4,362	4,362
4-Jan-2019	The Vanguard Group, Inc.	BUY	75.22	Ordinary	20	20
4-Jan-2019	The Vanguard Group, Inc.	BUY	76.83	Ordinary	160	160
7-Jan-2019	The Vanguard Group, Inc.	BUY	78.85	Ordinary	534	534
8-Jan-2019	The Vanguard Group, Inc.	SELL	78.83	Ordinary	(185)	(185)
8-Jan-2019	The Vanguard Group, Inc.	SELL	79.29	Ordinary	(7,800)	(7,800)
9-Jan-2019	The Vanguard Group, Inc.	BUY	80.13	Ordinary	833	833
9-Jan-2019	The Vanguard Group, Inc.	SELL	80.00	Ordinary	(4,274)	(4,274)
10-Jan-2019	The Vanguard Group, Inc.	BUY	80.67	Ordinary	1,136	1,136
10-Jan-2019	The Vanguard Group, Inc.	BUY	80.67	Ordinary	964	964
10-Jan-2019	The Vanguard Group, Inc.	SELL	79.98	Ordinary	(3,901)	(3,901)
10-Jan-2019	The Vanguard Group, Inc.	BUY	80.13	Ordinary	1,912	1,912
11-Jan-2019	The Vanguard Group, Inc.	BUY	79.68	Ordinary	426	426
11-Jan-2019	The Vanguard Group, Inc.	BUY	79.68	Ordinary	1,428	1,428
11-Jan-2019	The Vanguard Group, Inc.	BUY	79.65	Ordinary	1,953	1,953
14-Jan-2019	The Vanguard Group, Inc.	BUY	79.28	Ordinary	833	833
15-Jan-2019	The Vanguard Group, Inc.	SELL	80.00	Ordinary	(2,172)	(2,172)
17-Jan-2019	The Vanguard Group, Inc.	BUY	80.19	Ordinary	4,248	4,248
17-Jan-2019	The Vanguard Group, Inc.	SELL	80.99	Ordinary	(2,334)	(2,334)
17-Jan-2019	The Vanguard Group, Inc.	BUY	80.40	Ordinary	341	341
17-Jan-2019	The Vanguard Group, Inc.	SELL	80.40	Ordinary	(2,912)	(2,912)
18-Jan-2019	The Vanguard Group, Inc.	BUY	81.30	Ordinary	8,989	8,989
18-Jan-2019	The Vanguard Group, Inc.	SELL	81.30	Ordinary	(156)	(156)
18-Jan-2019	The Vanguard Group, Inc.	SELL	80.65	Ordinary	(901)	(901)
22-Jan-2019	The Vanguard Group, Inc.	SELL	79.87	Ordinary	(2,334)	(2,334)
22-Jan-2019	The Vanguard Group, Inc.	BUY	80.01	Ordinary	86	86
22-Jan-2019	The Vanguard Group, Inc.	BUY	80.01	Ordinary	432	432
23-Jan-2019	The Vanguard Group, Inc.	BUY	79.65	Ordinary	8,755	8,755
23-Jan-2019	The Vanguard Group, Inc.	BUY	79.65	Ordinary	5,849	5,849
23-Jan-2019	The Vanguard Group, Inc.	SELL	79.74	Ordinary	(5,057)	(5,057)
23-Jan-2019	The Vanguard Group, Inc.	BUY	79.60	Ordinary	371	371
24-Jan-2019	The Vanguard Group, Inc.	SELL	79.75	Ordinary	(5,057)	(5,057)
24-Jan-2019	The Vanguard Group, Inc.	BUY	79.60	Ordinary	5,407	5,407
28-Jan-2019	The Vanguard Group, Inc.	SELL	80.49	Ordinary	(1,602)	(1,602)
29-Jan-2019	The Vanguard Group, Inc.	SELL	83.71	Ordinary	(3,112)	(3,112)
29-Jan-2019	The Vanguard Group, Inc.	SELL	83.71	Ordinary	(3,112)	(3,112)
29-Jan-2019	The Vanguard Group, Inc.	SELL	83.71	Ordinary	(7,391)	(7,391)
29-Jan-2019	The Vanguard Group, Inc.	SELL	83.71	Ordinary	(714)	(714)
29-Jan-2019	The Vanguard Group, Inc.	SELL	82.18	Ordinary	(134)	(134)
29-Jan-2019	The Vanguard Group, Inc.	SELL	83.71	Ordinary	(1,068)	(1,068)
29-Jan-2019	The Vanguard Group, Inc.	BUY	82.18	Ordinary	27	27
30-Jan-2019	The Vanguard Group, Inc.	BUY	88.17	Ordinary	497	497
30-Jan-2019	The Vanguard Group, Inc.	SELL	88.17	Ordinary	(1,602)	(1,602)
30-Jan-2019	The Vanguard Group, Inc.	SELL	87.30	Ordinary	(2,381)	(2,381)
30-Jan-2019	The Vanguard Group, Inc.	BUY	87.30	Ordinary	10,243	10,243
31-Jan-2019	The Vanguard Group, Inc.	SELL	87.48	Ordinary	(595)	(595)
31-Jan-2019	The Vanguard Group, Inc.	SELL	87.48	Ordinary	(4,539)	(4,539)
31-Jan-2019	The Vanguard Group, Inc.	BUY	87.05	Ordinary	205	205
4-Feb-2019	The Vanguard Group, Inc.	SELL	87.15	Ordinary	(952)	(952)
4-Feb-2019	The Vanguard Group, Inc.	SELL	87.15	Ordinary	(833)	(833)
5-Feb-2019	The Vanguard Group, Inc.	BUY	89.55	Ordinary	781	781
5-Feb-2019	The Vanguard Group, Inc.	SELL	89.55	Ordinary	(833)	(833)
7-Feb-2019	The Vanguard Group, Inc.	SELL	91.60	Ordinary	(2,752)	(2,752)
7-Feb-2019	The Vanguard Group, Inc.	BUY	91.60	Ordinary	1,420	1,420
7-Feb-2019	The Vanguard Group, Inc.	SELL	91.60	Ordinary	(952)	(952)
7-Feb-2019	The Vanguard Group, Inc.	SELL	91.60	Ordinary	(1,068)	(1,068)
7-Feb-2019	The Vanguard Group, Inc.	SELL	91.60	Ordinary	(1,068)	(1,068)
7-Feb-2019	The Vanguard Group, Inc.	SELL	91.00	Ordinary	(710)	(710)
8-Feb-2019	The Vanguard Group, Inc.	SELL	90.93	Ordinary	(3,471)	(3,471)
8-Feb-2019	The Vanguard Group, Inc.	BUY	90.57	Ordinary	4,683	4,683
11-Feb-2019	The Vanguard Group, Inc.	SELL	92.43	Ordinary	(2,403)	(2,403)



Date of change	Person whose relevant interest changed	Nature of Change(6)	Consideration given in relation to change(7)	Class	Number of securities affected	Person's votes affected
11-Feb-2019	The Vanguard Group, Inc.	BUY	92.20	Ordinary	7,406	7,406
12-Feb-2019	The Vanguard Group, Inc.	SELL	92.02	Ordinary	(19,297)	(19,297)
13-Feb-2019	The Vanguard Group, Inc.	BUY	91.32	Ordinary	12,963	12,963
13-Feb-2019	The Vanguard Group, Inc.	SELL	91.17	Ordinary	(1,602)	(1,602)
15-Feb-2019	The Vanguard Group, Inc.	SELL	92.16	Ordinary	(238)	(238)
15-Feb-2019	The Vanguard Group, Inc.	SELL	91.67	Ordinary	(114)	(114)
15-Feb-2019	The Vanguard Group, Inc.	BUY	91.55	Ordinary	6,462	6,462
18-Feb-2019	The Vanguard Group, Inc.	BUY	92.60	Ordinary	1,314	1,314
20-Feb-2019	The Vanguard Group, Inc.	BUY	93.99	Ordinary	17,490	17,490
20-Feb-2019	The Vanguard Group, Inc.	BUY	93.99	Ordinary	4,190	4,190
20-Feb-2019	The Vanguard Group, Inc.	SELL	94.94	Ordinary	(1,874)	(1,874)
20-Feb-2019	The Vanguard Group, Inc.	BUY	94.94	Ordinary	148	148
20-Feb-2019	The Vanguard Group, Inc.	SELL	93.52	Ordinary	(386)	(386)
20-Feb-2019	The Vanguard Group, Inc.	BUY	94.94	Ordinary	6,351	6,351
21-Feb-2019	The Vanguard Group, Inc.	BUY	94.83	Ordinary	7,350	7,350
21-Feb-2019	The Vanguard Group, Inc.	SELL	94.26	Ordinary	(833)	(833)
21-Feb-2019	The Vanguard Group, Inc.	SELL	94.26	Ordinary	(1,335)	(1,335)
21-Feb-2019	The Vanguard Group, Inc.	BUY	94.69	Ordinary	233	233
22-Feb-2019	The Vanguard Group, Inc.	BUY	94.69	Ordinary	2,940	2,940
22-Feb-2019	The Vanguard Group, Inc.	SELL	95.15	Ordinary	(3,451)	(3,451)
22-Feb-2019	The Vanguard Group, Inc.	BUY	94.69	Ordinary	529	529
25-Feb-2019	The Vanguard Group, Inc.	BUY	94.37	Ordinary	1,189	1,189
26-Feb-2019	The Vanguard Group, Inc.	BUY	94.36	Ordinary	1,945	1,945
26-Feb-2019	The Vanguard Group, Inc.	BUY	94.56	Ordinary	113	113
27-Feb-2019	The Vanguard Group, Inc.	BUY	94.91	Ordinary	482	482
27-Feb-2019	The Vanguard Group, Inc.	BUY	95.09	Ordinary	205	205
28-Feb-2019	The Vanguard Group, Inc.	SELL	96.69	Ordinary	(1,472)	(1,472)
28-Feb-2019	The Vanguard Group, Inc.	SELL	96.16	Ordinary	(6,777)	(6,777)
28-Feb-2019	The Vanguard Group, Inc.	BUY	96.22	Ordinary	1,958	1,958
28-Feb-2019	The Vanguard Group, Inc.	BUY	96.16	Ordinary	110	110
28-Feb-2019	The Vanguard Group, Inc.	SELL	96.16	Ordinary	(441)	(441)
1-Mar-2019	The Vanguard Group, Inc.	BUY	95.80	Ordinary	12,650	12,650
1-Mar-2019	The Vanguard Group, Inc.	SELL	94.92	Ordinary	(7,342)	(7,342)
1-Mar-2019	The Vanguard Group, Inc.	BUY	94.92	Ordinary	274	274
1-Mar-2019	The Vanguard Group, Inc.	SELL	94.92	Ordinary	(922)	(922)
4-Mar-2019	The Vanguard Group, Inc.	BUY	96.43	Ordinary	8,016	8,016
4-Mar-2019	The Vanguard Group, Inc.	SELL	96.43	Ordinary	(7,175)	(7,175)
4-Mar-2019	The Vanguard Group, Inc.	SELL	96.43	Ordinary	(854)	(854)
5-Mar-2019	The Vanguard Group, Inc.	BUY	95.86	Ordinary	18,158	18,158
5-Mar-2019	The Vanguard Group, Inc.	BUY	95.83	Ordinary	3,026	3,026
5-Mar-2019	The Vanguard Group, Inc.	BUY	95.59	Ordinary	2,334	2,334
5-Mar-2019	The Vanguard Group, Inc.	BUY	95.61	Ordinary	41	41
5-Mar-2019	The Vanguard Group, Inc.	SELL	95.61	Ordinary	(1,802)	(1,802)
6-Mar-2019	The Vanguard Group, Inc.	BUY	96.06	Ordinary	833	833
6-Mar-2019	The Vanguard Group, Inc.	BUY	96.00	Ordinary	1,788	1,788
7-Mar-2019	The Vanguard Group, Inc.	BUY	92.05	Ordinary	132	132
8-Mar-2019	The Vanguard Group, Inc.	BUY	90.50	Ordinary	1,945	1,945
8-Mar-2019	The Vanguard Group, Inc.	BUY	90.97	Ordinary	3,559	3,559
8-Mar-2019	The Vanguard Group, Inc.	BUY	90.60	Ordinary	241	241
8-Mar-2019	The Vanguard Group, Inc.	BUY	90.48	Ordinary	132	132
8-Mar-2019	The Vanguard Group, Inc.	BUY	90.60	Ordinary	180	180
11-Mar-2019	The Vanguard Group, Inc.	BUY	90.10	Ordinary	3,920	3,920
11-Mar-2019	The Vanguard Group, Inc.	BUY	90.20	Ordinary	205	205
11-Mar-2019	The Vanguard Group, Inc.	SELL	90.10	Ordinary	(3,367)	(3,367)
12-Mar-2019	The Vanguard Group, Inc.	SELL	91.13	Ordinary	(1,310)	(1,310)
14-Mar-2019	The Vanguard Group, Inc.	SELL	91.77	Ordinary	(3,537)	(3,537)
15-Mar-2019	The Vanguard Group, Inc.	SELL	91.70	Ordinary	(6,019)	(6,019)
15-Mar-2019	The Vanguard Group, Inc.	SELL	91.65	Ordinary	(22,071)	(22,071)
15-Mar-2019	The Vanguard Group, Inc.	SELL	91.70	Ordinary	(1,691)	(1,691)
15-Mar-2019	The Vanguard Group, Inc.	SELL	91.65	Ordinary	(6,201)	(6,201)
15-Mar-2019	The Vanguard Group, Inc.	BUY	91.65	Ordinary	31	31
15-Mar-2019	The Vanguard Group, Inc.	SELL	91.65	Ordinary	(18)	(18)
15-Mar-2019	The Vanguard Group, Inc.	SELL	91.70	Ordinary	(6)	(6)
15-Mar-2019	The Vanguard Group, Inc.	SELL	91.65	Ordinary	(691)	(691)
15-Mar-2019	The Vanguard Group, Inc.	SELL	91.70	Ordinary	(189)	(189)
15-Mar-2019	The Vanguard Group, Inc.	SELL	91.65	Ordinary	(517)	(517)
15-Mar-2019	The Vanguard Group, Inc.	SELL	91.70	Ordinary	(142)	(142)
18-Mar-2019	The Vanguard Group, Inc.	BUY	93.43	Ordinary	994	994

Date of change	Person whose relevant interest changed	Nature of Change(6)	Consideration given in relation to change(7)	Class	Number of securities affected	Person's votes affected
19-Mar-2019	The Vanguard Group, Inc.	BUY	94.01	Ordinary	9,545	9,545
19-Mar-2019	The Vanguard Group, Inc.	BUY	94.75	Ordinary	97	97
19-Mar-2019	The Vanguard Group, Inc.	BUY	94.75	Ordinary	2,617	2,617
20-Mar-2019	The Vanguard Group, Inc.	BUY	92.18	Ordinary	1,167	1,167
20-Mar-2019	The Vanguard Group, Inc.	BUY	92.09	Ordinary	320	320
21-Mar-2019	The Vanguard Group, Inc.	BUY	93.50	Ordinary	236	236
21-Mar-2019	The Vanguard Group, Inc.	BUY	93.00	Ordinary	46	46
21-Mar-2019	The Vanguard Group, Inc.	BUY	93.23	Ordinary	132	132
22-Mar-2019	The Vanguard Group, Inc.	BUY	93.90	Ordinary	13,636	13,636
26-Mar-2019	The Vanguard Group, Inc.	BUY	93.80	Ordinary	12,540	12,540
26-Mar-2019	The Vanguard Group, Inc.	SELL	93.00	Ordinary	(528)	(528)
27-Mar-2019	The Vanguard Group, Inc.	BUY	93.57	Ordinary	7,727	7,727
27-Mar-2019	The Vanguard Group, Inc.	SELL	93.52	Ordinary	(206)	(206)
27-Mar-2019	The Vanguard Group, Inc.	BUY	94.89	Ordinary	480	480
27-Mar-2019	The Vanguard Group, Inc.	SELL	95.23	Ordinary	(117)	(117)
27-Mar-2019	The Vanguard Group, Inc.	SELL	93.52	Ordinary	(3,166)	(3,166)
28-Mar-2019	The Vanguard Group, Inc.	SELL	96.41	Ordinary	(1,094)	(1,094)
29-Mar-2019	The Vanguard Group, Inc.	BUY	97.91	Ordinary	12,827	12,827
29-Mar-2019	The Vanguard Group, Inc.	SELL	98.08	Ordinary	(595)	(595)
29-Mar-2019	The Vanguard Group, Inc.	BUY	97.91	Ordinary	205	205
29-Mar-2019	The Vanguard Group, Inc.	SELL	97.91	Ordinary	(5,014)	(5,014)
1-Apr-2019	The Vanguard Group, Inc.	BUY	99.66	Ordinary	1,556	1,556
1-Apr-2019	The Vanguard Group, Inc.	BUY	99.66	Ordinary	480	480
1-Apr-2019	The Vanguard Group, Inc.	BUY	99.53	Ordinary	264	264
2-Apr-2019	The Vanguard Group, Inc.	BUY	99.97	Ordinary	10,320	10,320
2-Apr-2019	The Vanguard Group, Inc.	BUY	99.97	Ordinary	38	38
3-Apr-2019	The Vanguard Group, Inc.	BUY	99.91	Ordinary	13,484	13,484
4-Apr-2019	The Vanguard Group, Inc.	BUY	99.63	Ordinary	730	730
4-Apr-2019	The Vanguard Group, Inc.	SELL	99.63	Ordinary	(2,835)	(2,835)
5-Apr-2019	The Vanguard Group, Inc.	BUY	100.19	Ordinary	1,420	1,420
5-Apr-2019	The Vanguard Group, Inc.	BUY	100.19	Ordinary	480	480
8-Apr-2019	The Vanguard Group, Inc.	SELL	101.59	Ordinary	(1,428)	(1,428)
8-Apr-2019	The Vanguard Group, Inc.	BUY	101.59	Ordinary	480	480
9-Apr-2019	The Vanguard Group, Inc.	BUY	101.60	Ordinary	15,033	15,033
9-Apr-2019	The Vanguard Group, Inc.	SELL	101.58	Ordinary	(2,203)	(2,203)
10-Apr-2019	The Vanguard Group, Inc.	BUY	101.83	Ordinary	538	538
10-Apr-2019	The Vanguard Group, Inc.	BUY	101.10	Ordinary	150	150
10-Apr-2019	The Vanguard Group, Inc.	BUY	101.83	Ordinary	8,915	8,915
12-Apr-2019	The Vanguard Group, Inc.	BUY	100.48	Ordinary	3,236	3,236
12-Apr-2019	The Vanguard Group, Inc.	BUY	100.48	Ordinary	1,040	1,040
15-Apr-2019	The Vanguard Group, Inc.	SELL	100.80	Ordinary	(833)	(833)
16-Apr-2019	The Vanguard Group, Inc.	BUY	101.63	Ordinary	10,225	10,225
16-Apr-2019	The Vanguard Group, Inc.	BUY	101.63	Ordinary	4,100	4,100
16-Apr-2019	The Vanguard Group, Inc.	BUY	101.20	Ordinary	205	205
17-Apr-2019	The Vanguard Group, Inc.	BUY	98.10	Ordinary	7,004	7,004
18-Apr-2019	The Vanguard Group, Inc.	BUY	97.74	Ordinary	4,627	4,627
23-Apr-2019	The Vanguard Group, Inc.	BUY	99.73	Ordinary	1,278	1,278
23-Apr-2019	The Vanguard Group, Inc.	SELL	99.73	Ordinary	(476)	(476)
23-Apr-2019	The Vanguard Group, Inc.	SELL	99.21	Ordinary	(2,074)	(2,074)
24-Apr-2019	The Vanguard Group, Inc.	SELL	98.39	Ordinary	(4,251)	(4,251)
24-Apr-2019	The Vanguard Group, Inc.	BUY	98.39	Ordinary	347	347
25-Apr-2019	The Vanguard Group, Inc.	SELL	98.17	Ordinary	(595)	(595)
26-Apr-2019	The Vanguard Group, Inc.	BUY	97.91	Ordinary	1,945	1,945
26-Apr-2019	The Vanguard Group, Inc.	SELL	97.91	Ordinary	(595)	(595)
26-Apr-2019	The Vanguard Group, Inc.	SELL	98.34	Ordinary	(162)	(162)
2-May-2019	The Vanguard Group, Inc.	BUY	94.46	Ordinary	27,073	27,073
3-May-2019	The Vanguard Group, Inc.	BUY	94.45	Ordinary	2,814	2,814
3-May-2019	The Vanguard Group, Inc.	BUY	94.43	Ordinary	391	391
3-May-2019	The Vanguard Group, Inc.	BUY	94.54	Ordinary	730	730
3-May-2019	The Vanguard Group, Inc.	BUY	94.45	Ordinary	3,716	3,716
6-May-2019	The Vanguard Group, Inc.	SELL	94.54	Ordinary	(2,064)	(2,064)
7-May-2019	The Vanguard Group, Inc.	BUY	96.47	Ordinary	1,913	1,913
7-May-2019	The Vanguard Group, Inc.	BUY	95.70	Ordinary	710	710
7-May-2019	The Vanguard Group, Inc.	BUY	96.47	Ordinary	9,209	9,209
7-May-2019	The Vanguard Group, Inc.	BUY	96.47	Ordinary	806	806
7-May-2019	The Vanguard Group, Inc.	BUY	96.24	Ordinary	730	730
8-May-2019	The Vanguard Group, Inc.	SELL	95.55	Ordinary	(2,064)	(2,064)
8-May-2019	The Vanguard Group, Inc.	BUY	95.60	Ordinary	8,508	8,508

Date of change	Person whose relevant interest changed	Nature of Change(6)	Consideration given in relation to change(7)	Class	Number of securities affected	Person's votes affected
8-May-2019	The Vanguard Group, Inc.	BUY	95.60	Ordinary	199	199
8-May-2019	The Vanguard Group, Inc.	BUY	95.95	Ordinary	132	132
8-May-2019	The Vanguard Group, Inc.	BUY	95.60	Ordinary	3,459	3,459
9-May-2019	The Vanguard Group, Inc.	BUY	95.68	Ordinary	7,436	7,436
9-May-2019	The Vanguard Group, Inc.	BUY	95.19	Ordinary	2,334	2,334
9-May-2019	The Vanguard Group, Inc.	BUY	95.19	Ordinary	474	474
10-May-2019	The Vanguard Group, Inc.	BUY	95.27	Ordinary	418	418
10-May-2019	The Vanguard Group, Inc.	BUY	95.27	Ordinary	132	132
10-May-2019	The Vanguard Group, Inc.	SELL	95.27	Ordinary	(5,837)	(5,837)
13-May-2019	The Vanguard Group, Inc.	BUY	95.12	Ordinary	1,741	1,741
13-May-2019	The Vanguard Group, Inc.	BUY	96.03	Ordinary	420	420
14-May-2019	The Vanguard Group, Inc.	SELL	96.62	Ordinary	(2,064)	(2,064)
14-May-2019	The Vanguard Group, Inc.	BUY	94.77	Ordinary	23,353	23,353
14-May-2019	The Vanguard Group, Inc.	BUY	96.62	Ordinary	1,068	1,068
14-May-2019	The Vanguard Group, Inc.	BUY	96.62	Ordinary	237	237
14-May-2019	The Vanguard Group, Inc.	BUY	96.22	Ordinary	104	104
14-May-2019	The Vanguard Group, Inc.	BUY	95.63	Ordinary	205	205
15-May-2019	The Vanguard Group, Inc.	BUY	96.50	Ordinary	2,994	2,994
15-May-2019	The Vanguard Group, Inc.	BUY	98.31	Ordinary	4,896	4,896
16-May-2019	The Vanguard Group, Inc.	BUY	98.49	Ordinary	1,554	1,554
16-May-2019	The Vanguard Group, Inc.	BUY	98.49	Ordinary	19,577	19,577
16-May-2019	The Vanguard Group, Inc.	BUY	99.28	Ordinary	57,798	57,798
17-May-2019	The Vanguard Group, Inc.	BUY	101.35	Ordinary	7,702	7,702
17-May-2019	The Vanguard Group, Inc.	BUY	101.35	Ordinary	5,486	5,486
17-May-2019	The Vanguard Group, Inc.	BUY	101.35	Ordinary	346	346
17-May-2019	The Vanguard Group, Inc.	BUY	101.42	Ordinary	7,697	7,697
20-May-2019	The Vanguard Group, Inc.	BUY	101.78	Ordinary	710	710
21-May-2019	The Vanguard Group, Inc.	BUY	101.50	Ordinary	19,000	19,000
21-May-2019	The Vanguard Group, Inc.	BUY	101.27	Ordinary	178	178
21-May-2019	The Vanguard Group, Inc.	BUY	101.27	Ordinary	1,750	1,750
22-May-2019	The Vanguard Group, Inc.	BUY	101.03	Ordinary	12,539	12,539
22-May-2019	The Vanguard Group, Inc.	BUY	101.03	Ordinary	1,435	1,435
22-May-2019	The Vanguard Group, Inc.	BUY	101.70	Ordinary	1,740	1,740
24-May-2019	The Vanguard Group, Inc.	BUY	100.51	Ordinary	20,392	20,392
24-May-2019	The Vanguard Group, Inc.	BUY	101.25	Ordinary	609	609
28-May-2019	The Vanguard Group, Inc.	BUY	104.53	Ordinary	1,945	1,945
28-May-2019	The Vanguard Group, Inc.	SELL	105.28	Ordinary	(72)	(72)
28-May-2019	The Vanguard Group, Inc.	SELL	105.28	Ordinary	(6,440)	(6,440)
28-May-2019	The Vanguard Group, Inc.	SELL	105.28	Ordinary	(832)	(832)
28-May-2019	The Vanguard Group, Inc.	BUY	105.31	Ordinary	1,633	1,633
29-May-2019	The Vanguard Group, Inc.	BUY	104.50	Ordinary	262	262
29-May-2019	The Vanguard Group, Inc.	SELL	104.26	Ordinary	(1,190)	(1,190)
29-May-2019	The Vanguard Group, Inc.	SELL	104.53	Ordinary	(289)	(289)
29-May-2019	The Vanguard Group, Inc.	BUY	104.53	Ordinary	231	231
30-May-2019	The Vanguard Group, Inc.	BUY	101.05	Ordinary	132	132
31-May-2019	The Vanguard Group, Inc.	BUY	100.51	Ordinary	7,170	7,170
31-May-2019	The Vanguard Group, Inc.	SELL	100.30	Ordinary	(10,251)	(10,251)
3-Jun-2019	The Vanguard Group, Inc.	BUY	97.31	Ordinary	710	710
4-Jun-2019	The Vanguard Group, Inc.	SELL	100.13	Ordinary	(595)	(595)
4-Jun-2019	The Vanguard Group, Inc.	BUY	98.72	Ordinary	3,635	3,635
5-Jun-2019	The Vanguard Group, Inc.	SELL	99.95	Ordinary	(2,752)	(2,752)
5-Jun-2019	The Vanguard Group, Inc.	SELL	99.95	Ordinary	(1,376)	(1,376)
5-Jun-2019	The Vanguard Group, Inc.	SELL	100.03	Ordinary	(83)	(83)
5-Jun-2019	The Vanguard Group, Inc.	SELL	99.51	Ordinary	(730)	(730)
6-Jun-2019	The Vanguard Group, Inc.	BUY	97.38	Ordinary	474	474
6-Jun-2019	The Vanguard Group, Inc.	BUY	99.18	Ordinary	4,389	4,389
6-Jun-2019	The Vanguard Group, Inc.	BUY	96.72	Ordinary	205	205
6-Jun-2019	The Vanguard Group, Inc.	SELL	96.72	Ordinary	(12,370)	(12,370)
7-Jun-2019	The Vanguard Group, Inc.	BUY	98.62	Ordinary	474	474
7-Jun-2019	The Vanguard Group, Inc.	SELL	98.00	Ordinary	(1,681)	(1,681)
7-Jun-2019	The Vanguard Group, Inc.	BUY	98.00	Ordinary	97	97
7-Jun-2019	The Vanguard Group, Inc.	BUY	98.00	Ordinary	1,714	1,714
10-Jun-2019	The Vanguard Group, Inc.	BUY	98.83	Ordinary	852	852
11-Jun-2019	The Vanguard Group, Inc.	SELL	100.18	Ordinary	(1,720)	(1,720)
11-Jun-2019	The Vanguard Group, Inc.	BUY	99.00	Ordinary	15	15
11-Jun-2019	The Vanguard Group, Inc.	BUY	100.55	Ordinary	132	132
12-Jun-2019	The Vanguard Group, Inc.	BUY	102.48	Ordinary	852	852
12-Jun-2019	The Vanguard Group, Inc.	BUY	102.41	Ordinary	269	269

Date of change	Person whose relevant interest changed	Nature of Change(6)	Consideration given in relation to change(7)	Class	Number of securities affected	Person's votes affected
12-Jun-2019	The Vanguard Group, Inc.	BUY	102.41	Ordinary	4,927	4,927
13-Jun-2019	The Vanguard Group, Inc.	BUY	102.28	Ordinary	284	284
13-Jun-2019	The Vanguard Group, Inc.	SELL	101.90	Ordinary	(11,387)	(11,387)
14-Jun-2019	The Vanguard Group, Inc.	SELL	105.34	Ordinary	(1,506)	(1,506)
14-Jun-2019	The Vanguard Group, Inc.	SELL	105.21	Ordinary	(1,032)	(1,032)
14-Jun-2019	The Vanguard Group, Inc.	SELL	104.87	Ordinary	(10,064)	(10,064)
14-Jun-2019	The Vanguard Group, Inc.	SELL	103.65	Ordinary	(12)	(12)
14-Jun-2019	The Vanguard Group, Inc.	SELL	103.65	Ordinary	(14)	(14)
17-Jun-2019	The Vanguard Group, Inc.	SELL	103.67	Ordinary	(37,943)	(37,943)
17-Jun-2019	The Vanguard Group, Inc.	SELL	103.75	Ordinary	(114,000)	(114,000)
17-Jun-2019	The Vanguard Group, Inc.	BUY	103.86	Ordinary	205	205
17-Jun-2019	The Vanguard Group, Inc.	SELL	103.86	Ordinary	(3,065)	(3,065)
18-Jun-2019	The Vanguard Group, Inc.	SELL	103.62	Ordinary	(69,000)	(69,000)
18-Jun-2019	The Vanguard Group, Inc.	SELL	102.69	Ordinary	(1,260)	(1,260)
18-Jun-2019	The Vanguard Group, Inc.	BUY	103.09	Ordinary	14,689	14,689
18-Jun-2019	The Vanguard Group, Inc.	BUY	104.23	Ordinary	474	474
19-Jun-2019	The Vanguard Group, Inc.	SELL	106.04	Ordinary	(50,060)	(50,060)
19-Jun-2019	The Vanguard Group, Inc.	BUY	106.51	Ordinary	4,319	4,319
19-Jun-2019	The Vanguard Group, Inc.	SELL	106.51	Ordinary	(3,762)	(3,762)
20-Jun-2019	The Vanguard Group, Inc.	BUY	101.48	Ordinary	710	710
21-Jun-2019	The Vanguard Group, Inc.	SELL	101.50	Ordinary	(4,766)	(4,766)
21-Jun-2019	The Vanguard Group, Inc.	BUY	101.70	Ordinary	355	355
21-Jun-2019	The Vanguard Group, Inc.	SELL	101.54	Ordinary	(31,919)	(31,919)
21-Jun-2019	The Vanguard Group, Inc.	BUY	101.54	Ordinary	4,053	4,053
21-Jun-2019	The Vanguard Group, Inc.	BUY	101.54	Ordinary	230	230
21-Jun-2019	The Vanguard Group, Inc.	SELL	101.50	Ordinary	(22)	(22)
21-Jun-2019	The Vanguard Group, Inc.	SELL	101.54	Ordinary	(149)	(149)
24-Jun-2019	The Vanguard Group, Inc.	BUY	101.66	Ordinary	2,136	2,136
25-Jun-2019	The Vanguard Group, Inc.	SELL	101.80	Ordinary	(1,032)	(1,032)
25-Jun-2019	The Vanguard Group, Inc.	BUY	102.17	Ordinary	7,067	7,067
25-Jun-2019	The Vanguard Group, Inc.	BUY	101.80	Ordinary	426	426
25-Jun-2019	The Vanguard Group, Inc.	BUY	101.80	Ordinary	639	639
25-Jun-2019	The Vanguard Group, Inc.	BUY	102.38	Ordinary	801	801
26-Jun-2019	The Vanguard Group, Inc.	BUY	103.24	Ordinary	852	852
26-Jun-2019	The Vanguard Group, Inc.	BUY	103.24	Ordinary	497	497
26-Jun-2019	The Vanguard Group, Inc.	BUY	101.97	Ordinary	2,831	2,831
26-Jun-2019	The Vanguard Group, Inc.	BUY	101.97	Ordinary	179	179
26-Jun-2019	The Vanguard Group, Inc.	BUY	103.16	Ordinary	730	730
26-Jun-2019	The Vanguard Group, Inc.	BUY	103.16	Ordinary	988	988
27-Jun-2019	The Vanguard Group, Inc.	SELL	106.26	Ordinary	(358)	(358)
28-Jun-2019	The Vanguard Group, Inc.	BUY	103.76	Ordinary	13,903	13,903
28-Jun-2019	The Vanguard Group, Inc.	SELL	103.76	Ordinary	(38)	(38)
28-Jun-2019	The Vanguard Group, Inc.	SELL	103.76	Ordinary	(14)	(14)
1-Jul-2019	The Vanguard Group, Inc.	BUY	104.50	Ordinary	476	476
2-Jul-2019	The Vanguard Group, Inc.	BUY	106.70	Ordinary	639	639
2-Jul-2019	The Vanguard Group, Inc.	SELL	106.45	Ordinary	(26)	(26)
2-Jul-2019	The Vanguard Group, Inc.	BUY	105.98	Ordinary	3,474	3,474
2-Jul-2019	The Vanguard Group, Inc.	BUY	106.45	Ordinary	6,889	6,889
3-Jul-2019	The Vanguard Group, Inc.	BUY	107.04	Ordinary	4,474	4,474
3-Jul-2019	The Vanguard Group, Inc.	BUY	107.04	Ordinary	3,739	3,739
4-Jul-2019	The Vanguard Group, Inc.	BUY	106.20	Ordinary	3,325	3,325
5-Jul-2019	The Vanguard Group, Inc.	BUY	103.86	Ordinary	1,560	1,560
5-Jul-2019	The Vanguard Group, Inc.	BUY	103.93	Ordinary	148	148
8-Jul-2019	The Vanguard Group, Inc.	BUY	102.00	Ordinary	295	295
9-Jul-2019	The Vanguard Group, Inc.	BUY	104.24	Ordinary	10,920	10,920
9-Jul-2019	The Vanguard Group, Inc.	BUY	104.83	Ordinary	710	710
9-Jul-2019	The Vanguard Group, Inc.	BUY	104.35	Ordinary	956	956
9-Jul-2019	The Vanguard Group, Inc.	BUY	104.35	Ordinary	205	205
10-Jul-2019	The Vanguard Group, Inc.	BUY	103.67	Ordinary	1,109	1,109
11-Jul-2019	The Vanguard Group, Inc.	BUY	104.20	Ordinary	380	380
12-Jul-2019	The Vanguard Group, Inc.	BUY	103.88	Ordinary	806	806
12-Jul-2019	The Vanguard Group, Inc.	SELL	103.55	Ordinary	(1,957)	(1,957)
12-Jul-2019	The Vanguard Group, Inc.	SELL	103.55	Ordinary	(5,655)	(5,655)
15-Jul-2019	The Vanguard Group, Inc.	BUY	103.82	Ordinary	2,340	2,340
15-Jul-2019	The Vanguard Group, Inc.	SELL	103.91	Ordinary	(1,113)	(1,113)
16-Jul-2019	The Vanguard Group, Inc.	BUY	102.78	Ordinary	8,587	8,587
17-Jul-2019	The Vanguard Group, Inc.	BUY	102.84	Ordinary	710	710
17-Jul-2019	The Vanguard Group, Inc.	BUY	102.84	Ordinary	355	355

Date of change	Person whose relevant interest changed	Nature of Change(6)	Consideration given in relation to change(7)	Class	Number of securities affected	Person's votes affected
17-Jul-2019	The Vanguard Group, Inc.	BUY	102.84	Ordinary	497	497
17-Jul-2019	The Vanguard Group, Inc.	SELL	103.20	Ordinary	(226)	(226)
18-Jul-2019	The Vanguard Group, Inc.	BUY	102.36	Ordinary	1,058	1,058
19-Jul-2019	The Vanguard Group, Inc.	BUY	101.73	Ordinary	468	468
22-Jul-2019	The Vanguard Group, Inc.	BUY	103.48	Ordinary	710	710
22-Jul-2019	The Vanguard Group, Inc.	BUY	103.48	Ordinary	1,950	1,950
22-Jul-2019	The Vanguard Group, Inc.	BUY	103.48	Ordinary	1,950	1,950
22-Jul-2019	The Vanguard Group, Inc.	BUY	103.48	Ordinary	468	468
22-Jul-2019	The Vanguard Group, Inc.	SELL	103.17	Ordinary	(6,539)	(6,539)
23-Jul-2019	The Vanguard Group, Inc.	BUY	103.03	Ordinary	710	710
23-Jul-2019	The Vanguard Group, Inc.	BUY	102.76	Ordinary	132	132
25-Jul-2019	The Vanguard Group, Inc.	BUY	97.00	Ordinary	11,915	11,915
25-Jul-2019	The Vanguard Group, Inc.	BUY	95.87	Ordinary	801	801
26-Jul-2019	The Vanguard Group, Inc.	BUY	96.57	Ordinary	7,129	7,129
26-Jul-2019	The Vanguard Group, Inc.	BUY	98.45	Ordinary	639	639
26-Jul-2019	The Vanguard Group, Inc.	BUY	98.45	Ordinary	1,335	1,335
26-Jul-2019	The Vanguard Group, Inc.	BUY	98.45	Ordinary	468	468
26-Jul-2019	The Vanguard Group, Inc.	BUY	98.26	Ordinary	106	106
26-Jul-2019	The Vanguard Group, Inc.	SELL	98.26	Ordinary	(1,438)	(1,438)
29-Jul-2019	The Vanguard Group, Inc.	SELL	98.78	Ordinary	(8,066)	(8,066)
30-Jul-2019	The Vanguard Group, Inc.	SELL	98.78	Ordinary	(1,376)	(1,376)
30-Jul-2019	The Vanguard Group, Inc.	SELL	99.50	Ordinary	(136)	(136)
30-Jul-2019	The Vanguard Group, Inc.	BUY	99.09	Ordinary	730	730
30-Jul-2019	The Vanguard Group, Inc.	BUY	99.00	Ordinary	4,798	4,798
31-Jul-2019	The Vanguard Group, Inc.	BUY	97.87	Ordinary	639	639
1-Aug-2019	The Vanguard Group, Inc.	BUY	97.34	Ordinary	15,374	15,374
1-Aug-2019	The Vanguard Group, Inc.	BUY	97.62	Ordinary	3,510	3,510
1-Aug-2019	The Vanguard Group, Inc.	SELL	97.34	Ordinary	(312)	(312)
1-Aug-2019	The Vanguard Group, Inc.	SELL	97.81	Ordinary	(13,928)	(13,928)
2-Aug-2019	The Vanguard Group, Inc.	BUY	95.36	Ordinary	8,938	8,938
2-Aug-2019	The Vanguard Group, Inc.	BUY	94.44	Ordinary	1,068	1,068
2-Aug-2019	The Vanguard Group, Inc.	BUY	95.36	Ordinary	139	139
5-Aug-2019	The Vanguard Group, Inc.	BUY	90.23	Ordinary	710	710
5-Aug-2019	The Vanguard Group, Inc.	SELL	90.23	Ordinary	(595)	(595)
5-Aug-2019	The Vanguard Group, Inc.	SELL	90.23	Ordinary	(238)	(238)
5-Aug-2019	The Vanguard Group, Inc.	BUY	90.23	Ordinary	1,335	1,335
5-Aug-2019	The Vanguard Group, Inc.	BUY	93.89	Ordinary	1,493	1,493
5-Aug-2019	The Vanguard Group, Inc.	BUY	91.49	Ordinary	270	270
6-Aug-2019	The Vanguard Group, Inc.	BUY	89.00	Ordinary	12,126	12,126
6-Aug-2019	The Vanguard Group, Inc.	SELL	92.38	Ordinary	(952)	(952)
6-Aug-2019	The Vanguard Group, Inc.	SELL	92.38	Ordinary	(2,023)	(2,023)
6-Aug-2019	The Vanguard Group, Inc.	BUY	92.38	Ordinary	234	234
6-Aug-2019	The Vanguard Group, Inc.	BUY	91.30	Ordinary	3,564	3,564
6-Aug-2019	The Vanguard Group, Inc.	BUY	91.39	Ordinary	1,011	1,011
7-Aug-2019	The Vanguard Group, Inc.	BUY	91.42	Ordinary	13,791	13,791
7-Aug-2019	The Vanguard Group, Inc.	BUY	91.42	Ordinary	6,170	6,170
7-Aug-2019	The Vanguard Group, Inc.	SELL	91.55	Ordinary	(137)	(137)
7-Aug-2019	The Vanguard Group, Inc.	BUY	91.42	Ordinary	1,481	1,481
8-Aug-2019	The Vanguard Group, Inc.	SELL	89.50	Ordinary	(1,720)	(1,720)
8-Aug-2019	The Vanguard Group, Inc.	BUY	88.52	Ordinary	544	544
9-Aug-2019	The Vanguard Group, Inc.	BUY	88.80	Ordinary	1,916	1,916
9-Aug-2019	The Vanguard Group, Inc.	BUY	87.56	Ordinary	702	702
12-Aug-2019	The Vanguard Group, Inc.	BUY	84.36	Ordinary	1,136	1,136
12-Aug-2019	The Vanguard Group, Inc.	BUY	85.28	Ordinary	137	137
13-Aug-2019	The Vanguard Group, Inc.	SELL	86.42	Ordinary	(2,408)	(2,408)
13-Aug-2019	The Vanguard Group, Inc.	BUY	86.42	Ordinary	468	468
13-Aug-2019	The Vanguard Group, Inc.	BUY	85.80	Ordinary	237	237
14-Aug-2019	The Vanguard Group, Inc.	BUY	88.97	Ordinary	11,388	11,388
14-Aug-2019	The Vanguard Group, Inc.	BUY	87.94	Ordinary	205	205
14-Aug-2019	The Vanguard Group, Inc.	SELL	88.97	Ordinary	(453)	(453)
15-Aug-2019	The Vanguard Group, Inc.	SELL	85.50	Ordinary	(2,064)	(2,064)
15-Aug-2019	The Vanguard Group, Inc.	BUY	86.19	Ordinary	8,423	8,423
15-Aug-2019	The Vanguard Group, Inc.	BUY	86.19	Ordinary	3	3
16-Aug-2019	The Vanguard Group, Inc.	BUY	85.42	Ordinary	11,456	11,456
16-Aug-2019	The Vanguard Group, Inc.	BUY	84.72	Ordinary	5,469	5,469
16-Aug-2019	The Vanguard Group, Inc.	BUY	84.72	Ordinary	525	525
16-Aug-2019	The Vanguard Group, Inc.	BUY	84.72	Ordinary	1,407	1,407
19-Aug-2019	The Vanguard Group, Inc.	SELL	84.96	Ordinary	(261)	(261)

Date of change	Person whose relevant interest changed	Nature of Change(6)	Consideration given in relation to change(7)	Class	Number of securities affected	Person's votes affected
19-Aug-2019	The Vanguard Group, Inc.	BUY	84.96	Ordinary	3,993	3,993
20-Aug-2019	The Vanguard Group, Inc.	SELL	85.31	Ordinary	(476)	(476)
20-Aug-2019	The Vanguard Group, Inc.	SELL	85.02	Ordinary	(451)	(451)
21-Aug-2019	The Vanguard Group, Inc.	SELL	83.70	Ordinary	(617,275)	(617,275)
22-Aug-2019	The Vanguard Group, Inc.	BUY	84.07	Ordinary	1,420	1,420
22-Aug-2019	The Vanguard Group, Inc.	SELL	83.70	Ordinary	(4,901)	(4,901)
27-Aug-2019	The Vanguard Group, Inc.	BUY	83.17	Ordinary	11,370	11,370
27-Aug-2019	The Vanguard Group, Inc.	SELL	83.70	Ordinary	(1,588)	(1,588)
29-Aug-2019	The Vanguard Group, Inc.	BUY	85.68	Ordinary	5,216	5,216
30-Aug-2019	The Vanguard Group, Inc.	BUY	86.76	Ordinary	6,501	6,501
2-Sep-2019	The Vanguard Group, Inc.	BUY	88.83	Ordinary	3,715	3,715
5-Sep-2019	The Vanguard Group, Inc.	BUY	90.23	Ordinary	5,193	5,193
6-Sep-2019	The Vanguard Group, Inc.	SELL	90.89	Ordinary	(167)	(167)
6-Sep-2019	The Vanguard Group, Inc.	BUY	90.37	Ordinary	200	200
6-Sep-2019	The Vanguard Group, Inc.	SELL	90.89	Ordinary	(752)	(752)
9-Sep-2019	The Vanguard Group, Inc.	BUY	90.10	Ordinary	923	923
9-Sep-2019	The Vanguard Group, Inc.	SELL	90.31	Ordinary	(395)	(395)
11-Sep-2019	The Vanguard Group, Inc.	BUY	92.48	Ordinary	923	923
12-Sep-2019	The Vanguard Group, Inc.	BUY	92.73	Ordinary	8,585	8,585
12-Sep-2019	The Vanguard Group, Inc.	BUY	92.71	Ordinary	710	710
13-Sep-2019	The Vanguard Group, Inc.	SELL	92.76	Ordinary	(165)	(165)
16-Sep-2019	The Vanguard Group, Inc.	BUY	94.21	Ordinary	1,035	1,035
16-Sep-2019	The Vanguard Group, Inc.	BUY	94.11	Ordinary	2,046	2,046
17-Sep-2019	The Vanguard Group, Inc.	BUY	92.65	Ordinary	137	137
18-Sep-2019	The Vanguard Group, Inc.	BUY	92.98	Ordinary	639	639
20-Sep-2019	The Vanguard Group, Inc.	SELL	92.47	Ordinary	(49,862)	(49,862)
20-Sep-2019	The Vanguard Group, Inc.	BUY	92.44	Ordinary	12	12
20-Sep-2019	The Vanguard Group, Inc.	SELL	92.47	Ordinary	(422)	(422)
23-Sep-2019	The Vanguard Group, Inc.	BUY	92.73	Ordinary	710	710
24-Sep-2019	The Vanguard Group, Inc.	SELL	93.04	Ordinary	(279)	(279)
24-Sep-2019	The Vanguard Group, Inc.	BUY	93.04	Ordinary	274	274
24-Sep-2019	The Vanguard Group, Inc.	BUY	93.04	Ordinary	5,633	5,633
25-Sep-2019	The Vanguard Group, Inc.	BUY	91.40	Ordinary	710	710
25-Sep-2019	The Vanguard Group, Inc.	BUY	90.93	Ordinary	172	172
25-Sep-2019	The Vanguard Group, Inc.	BUY	90.93	Ordinary	380	380
25-Sep-2019	The Vanguard Group, Inc.	BUY	91.01	Ordinary	490	490
25-Sep-2019	The Vanguard Group, Inc.	BUY	91.01	Ordinary	5,529	5,529
26-Sep-2019	The Vanguard Group, Inc.	BUY	91.09	Ordinary	2,203	2,203
26-Sep-2019	The Vanguard Group, Inc.	BUY	91.09	Ordinary	3,843	3,843
27-Sep-2019	The Vanguard Group, Inc.	SELL	91.60	Ordinary	(88)	(88)
27-Sep-2019	The Vanguard Group, Inc.	BUY	91.60	Ordinary	159	159
30-Sep-2019	The Vanguard Group, Inc.	BUY	92.80	Ordinary	468	468
1-Oct-2019	The Vanguard Group, Inc.	BUY	92.60	Ordinary	8	8
1-Oct-2019	The Vanguard Group, Inc.	BUY	92.60	Ordinary	722	722
2-Oct-2019	The Vanguard Group, Inc.	BUY	89.98	Ordinary	234	234
2-Oct-2019	The Vanguard Group, Inc.	BUY	91.27	Ordinary	719	719
3-Oct-2019	The Vanguard Group, Inc.	BUY	87.99	Ordinary	4,424	4,424
4-Oct-2019	The Vanguard Group, Inc.	BUY	87.65	Ordinary	7,975	7,975
4-Oct-2019	The Vanguard Group, Inc.	BUY	87.65	Ordinary	137	137
10-Oct-2019	The Vanguard Group, Inc.	BUY	88.44	Ordinary	710	710
10-Oct-2019	The Vanguard Group, Inc.	BUY	88.44	Ordinary	2,130	2,130
10-Oct-2019	The Vanguard Group, Inc.	SELL	88.44	Ordinary	(924)	(924)
15-Oct-2019	The Vanguard Group, Inc.	BUY	91.23	Ordinary	568	568
15-Oct-2019	The Vanguard Group, Inc.	SELL	91.00	Ordinary	(99)	(99)
16-Oct-2019	The Vanguard Group, Inc.	BUY	89.80	Ordinary	468	468
16-Oct-2019	The Vanguard Group, Inc.	BUY	89.81	Ordinary	137	137
17-Oct-2019	The Vanguard Group, Inc.	BUY	88.45	Ordinary	4,458	4,458
21-Oct-2019	The Vanguard Group, Inc.	BUY	88.43	Ordinary	468	468
21-Oct-2019	The Vanguard Group, Inc.	BUY	88.12	Ordinary	196	196
23-Oct-2019	The Vanguard Group, Inc.	BUY	90.12	Ordinary	710	710
23-Oct-2019	The Vanguard Group, Inc.	SELL	89.93	Ordinary	(6,403)	(6,403)
23-Oct-2019	The Vanguard Group, Inc.	BUY	89.60	Ordinary	284	284
25-Oct-2019	The Vanguard Group, Inc.	SELL	91.19	Ordinary	(4,320)	(4,320)
25-Oct-2019	The Vanguard Group, Inc.	BUY	91.19	Ordinary	468	468
25-Oct-2019	The Vanguard Group, Inc.	BUY	90.81	Ordinary	4,261	4,261
25-Oct-2019	The Vanguard Group, Inc.	SELL	90.81	Ordinary	(10)	(10)
25-Oct-2019	The Vanguard Group, Inc.	BUY	90.81	Ordinary	196	196
28-Oct-2019	The Vanguard Group, Inc.	BUY	91.25	Ordinary	11,510	11,510

Date of change	Person whose relevant interest changed	Nature of Change(6)	Consideration given in relation to change(7)	Class	Number of securities affected	Person's votes affected
29-Oct-2019	The Vanguard Group, Inc.	SELL	92.20	Ordinary	(3,575)	(3,575)
29-Oct-2019	The Vanguard Group, Inc.	BUY	92.20	Ordinary	268	268
29-Oct-2019	The Vanguard Group, Inc.	SELL	92.20	Ordinary	(205)	(205)
30-Oct-2019	The Vanguard Group, Inc.	BUY	91.57	Ordinary	3,231	3,231
31-Oct-2019	The Vanguard Group, Inc.	SELL	90.88	Ordinary	(5,048)	(5,048)
1-Nov-2019	The Vanguard Group, Inc.	BUY	90.07	Ordinary	122	122
4-Nov-2019	The Vanguard Group, Inc.	SELL	93.69	Ordinary	(67)	(67)
4-Nov-2019	The Vanguard Group, Inc.	BUY	92.21	Ordinary	373	373
5-Nov-2019	The Vanguard Group, Inc.	BUY	94.78	Ordinary	1,420	1,420
5-Nov-2019	The Vanguard Group, Inc.	SELL	94.46	Ordinary	(128)	(128)
6-Nov-2019	The Vanguard Group, Inc.	BUY	95.54	Ordinary	16,132	16,132
6-Nov-2019	The Vanguard Group, Inc.	BUY	95.19	Ordinary	710	710
7-Nov-2019	The Vanguard Group, Inc.	BUY	94.99	Ordinary	4,458	4,458
7-Nov-2019	The Vanguard Group, Inc.	BUY	95.24	Ordinary	804	804
8-Nov-2019	The Vanguard Group, Inc.	BUY	95.23	Ordinary	46	46
8-Nov-2019	The Vanguard Group, Inc.	BUY	95.23	Ordinary	196	196
11-Nov-2019	The Vanguard Group, Inc.	BUY	93.10	Ordinary	994	994
13-Nov-2019	The Vanguard Group, Inc.	BUY	92.03	Ordinary	675	675
13-Nov-2019	The Vanguard Group, Inc.	BUY	93.00	Ordinary	55	55
13-Nov-2019	The Vanguard Group, Inc.	BUY	93.00	Ordinary	16	16
14-Nov-2019	The Vanguard Group, Inc.	BUY	91.63	Ordinary	3,817	3,817
14-Nov-2019	The Vanguard Group, Inc.	SELL	91.65	Ordinary	(325)	(325)
15-Nov-2019	The Vanguard Group, Inc.	BUY	93.77	Ordinary	568	568
15-Nov-2019	The Vanguard Group, Inc.	BUY	92.18	Ordinary	1,363	1,363
18-Nov-2019	The Vanguard Group, Inc.	BUY	94.44	Ordinary	781	781
18-Nov-2019	The Vanguard Group, Inc.	BUY	94.44	Ordinary	702	702
18-Nov-2019	The Vanguard Group, Inc.	BUY	94.35	Ordinary	432	432
19-Nov-2019	The Vanguard Group, Inc.	BUY	95.20	Ordinary	196	196
20-Nov-2019	The Vanguard Group, Inc.	BUY	94.41	Ordinary	233	233
20-Nov-2019	The Vanguard Group, Inc.	BUY	94.41	Ordinary	71	71
20-Nov-2019	The Vanguard Group, Inc.	BUY	94.41	Ordinary	165	165
21-Nov-2019	The Vanguard Group, Inc.	BUY	93.30	Ordinary	31	31
22-Nov-2019	The Vanguard Group, Inc.	BUY	94.10	Ordinary	1,136	1,136
22-Nov-2019	The Vanguard Group, Inc.	SELL	93.43	Ordinary	(218)	(218)
22-Nov-2019	The Vanguard Group, Inc.	BUY	94.05	Ordinary	34	34
22-Nov-2019	The Vanguard Group, Inc.	BUY	94.05	Ordinary	288	288
25-Nov-2019	The Vanguard Group, Inc.	BUY	96.33	Ordinary	1,420	1,420
25-Nov-2019	The Vanguard Group, Inc.	BUY	95.05	Ordinary	2,766	2,766
25-Nov-2019	The Vanguard Group, Inc.	BUY	95.92	Ordinary	144	144
26-Nov-2019	The Vanguard Group, Inc.	BUY	96.03	Ordinary	675	675
26-Nov-2019	The Vanguard Group, Inc.	SELL	95.98	Ordinary	(61)	(61)
26-Nov-2019	The Vanguard Group, Inc.	BUY	95.97	Ordinary	3,935	3,935
27-Nov-2019	The Vanguard Group, Inc.	BUY	97.20	Ordinary	234	234
27-Nov-2019	The Vanguard Group, Inc.	BUY	97.00	Ordinary	2,013	2,013
27-Nov-2019	The Vanguard Group, Inc.	BUY	97.00	Ordinary	144	144
27-Nov-2019	The Vanguard Group, Inc.	BUY	97.00	Ordinary	719	719
28-Nov-2019	The Vanguard Group, Inc.	BUY	98.15	Ordinary	3,905	3,905
29-Nov-2019	The Vanguard Group, Inc.	BUY	96.93	Ordinary	2,700	2,700
29-Nov-2019	The Vanguard Group, Inc.	BUY	96.90	Ordinary	144	144
29-Nov-2019	The Vanguard Group, Inc.	BUY	96.90	Ordinary	196	196
29-Nov-2019	The Vanguard Group, Inc.	BUY	96.90	Ordinary	113	113
2-Dec-2019	The Vanguard Group, Inc.	BUY	96.63	Ordinary	5,460	5,460
3-Dec-2019	The Vanguard Group, Inc.	BUY	96.63	Ordinary	936	936
3-Dec-2019	The Vanguard Group, Inc.	BUY	97.02	Ordinary	392	392
3-Dec-2019	The Vanguard Group, Inc.	BUY	97.02	Ordinary	196	196
4-Dec-2019	The Vanguard Group, Inc.	BUY	95.57	Ordinary	733	733
4-Dec-2019	The Vanguard Group, Inc.	BUY	95.48	Ordinary	568	568
4-Dec-2019	The Vanguard Group, Inc.	BUY	95.03	Ordinary	94	94
4-Dec-2019	The Vanguard Group, Inc.	BUY	95.03	Ordinary	288	288
4-Dec-2019	The Vanguard Group, Inc.	BUY	95.03	Ordinary	3,315	3,315
5-Dec-2019	The Vanguard Group, Inc.	BUY	95.76	Ordinary	846	846
6-Dec-2019	The Vanguard Group, Inc.	BUY	95.43	Ordinary	8,984	8,984
6-Dec-2019	The Vanguard Group, Inc.	BUY	95.79	Ordinary	231	231
6-Dec-2019	The Vanguard Group, Inc.	BUY	95.79	Ordinary	6,599	6,599
9-Dec-2019	The Vanguard Group, Inc.	BUY	96.29	Ordinary	592	592
9-Dec-2019	The Vanguard Group, Inc.	BUY	97.42	Ordinary	1,224	1,224
10-Dec-2019	The Vanguard Group, Inc.	BUY	98.71	Ordinary	196	196
11-Dec-2019	The Vanguard Group, Inc.	BUY	99.10	Ordinary	852	852

Date of change	Person whose relevant interest changed	Nature of Change(6)	Consideration given in relation to change(7)	Class	Number of securities affected	Person's votes affected
11-Dec-2019	The Vanguard Group, Inc.	BUY	99.10	Ordinary	69	69
11-Dec-2019	The Vanguard Group, Inc.	BUY	99.10	Ordinary	140	140
12-Dec-2019	The Vanguard Group, Inc.	BUY	99.67	Ordinary	1,065	1,065
12-Dec-2019	The Vanguard Group, Inc.	BUY	99.67	Ordinary	801	801
12-Dec-2019	The Vanguard Group, Inc.	BUY	99.02	Ordinary	32	32
12-Dec-2019	The Vanguard Group, Inc.	SELL	99.02	Ordinary	(221)	(221)
13-Dec-2019	The Vanguard Group, Inc.	SELL	100.50	Ordinary	(62)	(62)
13-Dec-2019	The Vanguard Group, Inc.	BUY	100.45	Ordinary	468	468
17-Dec-2019	The Vanguard Group, Inc.	BUY	103.30	Ordinary	1,420	1,420
17-Dec-2019	The Vanguard Group, Inc.	BUY	103.30	Ordinary	781	781
20-Dec-2019	The Vanguard Group, Inc.	SELL	103.66	Ordinary	(976)	(976)
20-Dec-2019	The Vanguard Group, Inc.	SELL	103.56	Ordinary	(14,881)	(14,881)
20-Dec-2019	The Vanguard Group, Inc.	SELL	103.56	Ordinary	(3,791)	(3,791)
20-Dec-2019	The Vanguard Group, Inc.	BUY	103.30	Ordinary	2,847	2,847
20-Dec-2019	The Vanguard Group, Inc.	BUY	102.48	Ordinary	377	377
20-Dec-2019	The Vanguard Group, Inc.	BUY	103.30	Ordinary	5,895	5,895
20-Dec-2019	The Vanguard Group, Inc.	BUY	103.30	Ordinary	4,268	4,268
23-Dec-2019	The Vanguard Group, Inc.	SELL	102.86	Ordinary	(1,243)	(1,243)
23-Dec-2019	The Vanguard Group, Inc.	BUY	101.78	Ordinary	5,460	5,460
23-Dec-2019	The Vanguard Group, Inc.	BUY	101.78	Ordinary	1,170	1,170
23-Dec-2019	The Vanguard Group, Inc.	BUY	101.78	Ordinary	699	699
23-Dec-2019	The Vanguard Group, Inc.	BUY	102.86	Ordinary	29	29
23-Dec-2019	The Vanguard Group, Inc.	BUY	102.18	Ordinary	473	473
23-Dec-2019	The Vanguard Group, Inc.	BUY	102.18	Ordinary	980	980
23-Dec-2019	The Vanguard Group, Inc.	BUY	101.83	Ordinary	203	203
23-Dec-2019	The Vanguard Group, Inc.	BUY	102.18	Ordinary	709	709
24-Dec-2019	The Vanguard Group, Inc.	BUY	101.91	Ordinary	2,340	2,340
24-Dec-2019	The Vanguard Group, Inc.	BUY	102.00	Ordinary	294	294
26-Dec-2019	The Vanguard Group, Inc.	BUY	102.40	Ordinary	5,850	5,850
27-Dec-2019	The Vanguard Group, Inc.	BUY	102.41	Ordinary	3,870	3,870
27-Dec-2019	The Vanguard Group, Inc.	BUY	102.41	Ordinary	286	286
27-Dec-2019	The Vanguard Group, Inc.	BUY	102.51	Ordinary	293	293
30-Dec-2019	The Vanguard Group, Inc.	BUY	100.87	Ordinary	710	710
30-Dec-2019	The Vanguard Group, Inc.	SELL	102.00	Ordinary	(3,820)	(3,820)
30-Dec-2019	The Vanguard Group, Inc.	SELL	101.60	Ordinary	(33)	(33)
30-Dec-2019	The Vanguard Group, Inc.	BUY	101.60	Ordinary	147	147
30-Dec-2019	The Vanguard Group, Inc.	BUY	101.60	Ordinary	999	999
31-Dec-2019	The Vanguard Group, Inc.	BUY	100.82	Ordinary	10,971	10,971
31-Dec-2019	The Vanguard Group, Inc.	BUY	100.40	Ordinary	196	196
31-Dec-2019	The Vanguard Group, Inc.	BUY	100.40	Ordinary	196	196
2-Jan-2020	The Vanguard Group, Inc.	BUY	101.15	Ordinary	147	147
3-Jan-2020	The Vanguard Group, Inc.	BUY	102.89	Ordinary	3,530	3,530
3-Jan-2020	The Vanguard Group, Inc.	BUY	102.89	Ordinary	2,837	2,837
6-Jan-2020	The Vanguard Group, Inc.	BUY	100.47	Ordinary	7,675	7,675
6-Jan-2020	The Vanguard Group, Inc.	BUY	101.13	Ordinary	230	230
6-Jan-2020	The Vanguard Group, Inc.	BUY	101.79	Ordinary	231	231
6-Jan-2020	The Vanguard Group, Inc.	BUY	100.47	Ordinary	61	61
7-Jan-2020	The Vanguard Group, Inc.	BUY	100.92	Ordinary	13,194	13,194
8-Jan-2020	The Vanguard Group, Inc.	BUY	101.77	Ordinary	2,130	2,130
8-Jan-2020	The Vanguard Group, Inc.	BUY	100.86	Ordinary	196	196
8-Jan-2020	The Vanguard Group, Inc.	BUY	100.86	Ordinary	5,941	5,941
9-Jan-2020	The Vanguard Group, Inc.	BUY	102.62	Ordinary	639	639
9-Jan-2020	The Vanguard Group, Inc.	BUY	102.62	Ordinary	7,020	7,020
9-Jan-2020	The Vanguard Group, Inc.	SELL	102.19	Ordinary	(981)	(981)
9-Jan-2020	The Vanguard Group, Inc.	BUY	102.19	Ordinary	702	702
10-Jan-2020	The Vanguard Group, Inc.	BUY	101.74	Ordinary	7,389	7,389
10-Jan-2020	The Vanguard Group, Inc.	BUY	102.01	Ordinary	1,020	1,020
10-Jan-2020	The Vanguard Group, Inc.	SELL	101.66	Ordinary	(145)	(145)
10-Jan-2020	The Vanguard Group, Inc.	BUY	102.01	Ordinary	462	462
10-Jan-2020	The Vanguard Group, Inc.	BUY	102.43	Ordinary	408	408
10-Jan-2020	The Vanguard Group, Inc.	BUY	102.43	Ordinary	294	294
10-Jan-2020	The Vanguard Group, Inc.	BUY	102.43	Ordinary	196	196
13-Jan-2020	The Vanguard Group, Inc.	BUY	102.08	Ordinary	720	720
13-Jan-2020	The Vanguard Group, Inc.	BUY	102.08	Ordinary	196	196
14-Jan-2020	The Vanguard Group, Inc.	BUY	103.80	Ordinary	462	462
14-Jan-2020	The Vanguard Group, Inc.	SELL	101.66	Ordinary	(5,501)	(5,501)
14-Jan-2020	The Vanguard Group, Inc.	BUY	103.97	Ordinary	2,745	2,745
15-Jan-2020	The Vanguard Group, Inc.	BUY	103.52	Ordinary	3,120	3,120



Date of change	Person whose relevant interest changed	Nature of Change(6)	Consideration given in relation to change(7)	Class	Number of securities affected	Person's votes affected
15-Jan-2020	The Vanguard Group, Inc.	BUY	103.39	Ordinary	196	196
16-Jan-2020	The Vanguard Group, Inc.	BUY	104.03	Ordinary	3,510	3,510
16-Jan-2020	The Vanguard Group, Inc.	BUY	103.40	Ordinary	147	147
17-Jan-2020	The Vanguard Group, Inc.	BUY	104.32	Ordinary	8,605	8,605
17-Jan-2020	The Vanguard Group, Inc.	BUY	105.71	Ordinary	3,510	3,510
17-Jan-2020	The Vanguard Group, Inc.	BUY	105.71	Ordinary	3,120	3,120
17-Jan-2020	The Vanguard Group, Inc.	BUY	105.24	Ordinary	530	530
20-Jan-2020	The Vanguard Group, Inc.	BUY	105.65	Ordinary	701	701
21-Jan-2020	The Vanguard Group, Inc.	BUY	106.46	Ordinary	1,116	1,116
21-Jan-2020	The Vanguard Group, Inc.	BUY	106.46	Ordinary	2,232	2,232
21-Jan-2020	The Vanguard Group, Inc.	BUY	106.46	Ordinary	4,005	4,005
22-Jan-2020	The Vanguard Group, Inc.	BUY	106.92	Ordinary	2,340	2,340
22-Jan-2020	The Vanguard Group, Inc.	BUY	107.38	Ordinary	720	720
23-Jan-2020	The Vanguard Group, Inc.	BUY	106.72	Ordinary	710	710
23-Jan-2020	The Vanguard Group, Inc.	BUY	107.37	Ordinary	7,826	7,826
23-Jan-2020	The Vanguard Group, Inc.	BUY	106.72	Ordinary	1,950	1,950
23-Jan-2020	The Vanguard Group, Inc.	SELL	107.37	Ordinary	(3,436)	(3,436)
23-Jan-2020	The Vanguard Group, Inc.	BUY	106.72	Ordinary	693	693
23-Jan-2020	The Vanguard Group, Inc.	SELL	106.19	Ordinary	(35)	(35)
23-Jan-2020	The Vanguard Group, Inc.	BUY	106.19	Ordinary	147	147
23-Jan-2020	The Vanguard Group, Inc.	BUY	106.19	Ordinary	294	294
28-Jan-2020	The Vanguard Group, Inc.	BUY	97.14	Ordinary	10,559	10,559
28-Jan-2020	The Vanguard Group, Inc.	SELL	98.25	Ordinary	(1,032)	(1,032)
28-Jan-2020	The Vanguard Group, Inc.	SELL	98.25	Ordinary	(159)	(159)
28-Jan-2020	The Vanguard Group, Inc.	BUY	99.99	Ordinary	196	196
29-Jan-2020	The Vanguard Group, Inc.	BUY	100.43	Ordinary	294	294
30-Jan-2020	The Vanguard Group, Inc.	BUY	100.00	Ordinary	231	231
30-Jan-2020	The Vanguard Group, Inc.	BUY	99.19	Ordinary	147	147
30-Jan-2020	The Vanguard Group, Inc.	BUY	99.19	Ordinary	147	147
30-Jan-2020	The Vanguard Group, Inc.	BUY	99.19	Ordinary	2,130	2,130
31-Jan-2020	The Vanguard Group, Inc.	BUY	99.66	Ordinary	9,069	9,069
31-Jan-2020	The Vanguard Group, Inc.	BUY	96.94	Ordinary	2,340	2,340
31-Jan-2020	The Vanguard Group, Inc.	BUY	96.94	Ordinary	2,340	2,340
31-Jan-2020	The Vanguard Group, Inc.	BUY	98.77	Ordinary	799	799
31-Jan-2020	The Vanguard Group, Inc.	BUY	98.77	Ordinary	1,017	1,017
31-Jan-2020	The Vanguard Group, Inc.	BUY	98.77	Ordinary	301	301
31-Jan-2020	The Vanguard Group, Inc.	BUY	98.77	Ordinary	7,145	7,145
3-Feb-2020	The Vanguard Group, Inc.	BUY	96.67	Ordinary	6,014	6,014
3-Feb-2020	The Vanguard Group, Inc.	BUY	96.67	Ordinary	2,485	2,485
3-Feb-2020	The Vanguard Group, Inc.	BUY	96.86	Ordinary	2,160	2,160
4-Feb-2020	The Vanguard Group, Inc.	BUY	96.15	Ordinary	6,051	6,051
4-Feb-2020	The Vanguard Group, Inc.	BUY	97.92	Ordinary	1,278	1,278
4-Feb-2020	The Vanguard Group, Inc.	SELL	97.92	Ordinary	(1,736)	(1,736)
4-Feb-2020	The Vanguard Group, Inc.	BUY	97.92	Ordinary	1,068	1,068
4-Feb-2020	The Vanguard Group, Inc.	BUY	97.92	Ordinary	4,272	4,272
4-Feb-2020	The Vanguard Group, Inc.	BUY	97.34	Ordinary	44	44
4-Feb-2020	The Vanguard Group, Inc.	BUY	97.34	Ordinary	441	441
4-Feb-2020	The Vanguard Group, Inc.	BUY	97.34	Ordinary	867	867
4-Feb-2020	The Vanguard Group, Inc.	BUY	97.34	Ordinary	196	196
5-Feb-2020	The Vanguard Group, Inc.	BUY	99.15	Ordinary	1,775	1,775
5-Feb-2020	The Vanguard Group, Inc.	BUY	99.15	Ordinary	7,410	7,410
5-Feb-2020	The Vanguard Group, Inc.	BUY	99.15	Ordinary	2,730	2,730
5-Feb-2020	The Vanguard Group, Inc.	SELL	98.01	Ordinary	(154)	(154)
6-Feb-2020	The Vanguard Group, Inc.	BUY	99.20	Ordinary	12,817	12,817
6-Feb-2020	The Vanguard Group, Inc.	BUY	99.07	Ordinary	693	693
7-Feb-2020	The Vanguard Group, Inc.	BUY	98.28	Ordinary	568	568
7-Feb-2020	The Vanguard Group, Inc.	BUY	98.43	Ordinary	1,149	1,149
10-Feb-2020	The Vanguard Group, Inc.	BUY	98.89	Ordinary	3,510	3,510
10-Feb-2020	The Vanguard Group, Inc.	BUY	98.31	Ordinary	298	298
10-Feb-2020	The Vanguard Group, Inc.	BUY	98.31	Ordinary	720	720
11-Feb-2020	The Vanguard Group, Inc.	BUY	98.64	Ordinary	2,340	2,340
11-Feb-2020	The Vanguard Group, Inc.	BUY	98.63	Ordinary	196	196
11-Feb-2020	The Vanguard Group, Inc.	BUY	98.63	Ordinary	196	196
12-Feb-2020	The Vanguard Group, Inc.	BUY	98.88	Ordinary	3,913	3,913
12-Feb-2020	The Vanguard Group, Inc.	BUY	98.88	Ordinary	468	468
12-Feb-2020	The Vanguard Group, Inc.	BUY	97.50	Ordinary	6,560	6,560
13-Feb-2020	The Vanguard Group, Inc.	BUY	98.03	Ordinary	5,070	5,070
13-Feb-2020	The Vanguard Group, Inc.	SELL	98.99	Ordinary	(51)	(51)

Date of change	Person whose relevant interest changed	Nature of Change(6)	Consideration given in relation to change(7)	Class	Number of securities affected	Person's votes affected
13-Feb-2020	The Vanguard Group, Inc.	BUY	98.03	Ordinary	462	462
13-Feb-2020	The Vanguard Group, Inc.	BUY	98.01	Ordinary	149	149
13-Feb-2020	The Vanguard Group, Inc.	BUY	98.01	Ordinary	149	149
13-Feb-2020	The Vanguard Group, Inc.	BUY	98.01	Ordinary	196	196
13-Feb-2020	The Vanguard Group, Inc.	SELL	98.99	Ordinary	(4,056)	(4,056)
14-Feb-2020	The Vanguard Group, Inc.	BUY	97.57	Ordinary	2,340	2,340
14-Feb-2020	The Vanguard Group, Inc.	BUY	97.77	Ordinary	82	82
14-Feb-2020	The Vanguard Group, Inc.	SELL	97.65	Ordinary	(3,010)	(3,010)
18-Feb-2020	The Vanguard Group, Inc.	BUY	98.31	Ordinary	1,028	1,028
19-Feb-2020	The Vanguard Group, Inc.	BUY	97.97	Ordinary	6,515	6,515
19-Feb-2020	The Vanguard Group, Inc.	BUY	98.09	Ordinary	11,781	11,781
19-Feb-2020	The Vanguard Group, Inc.	BUY	98.27	Ordinary	1,950	1,950
19-Feb-2020	The Vanguard Group, Inc.	SELL	98.09	Ordinary	(276)	(276)
20-Feb-2020	The Vanguard Group, Inc.	BUY	97.74	Ordinary	8,520	8,520
20-Feb-2020	The Vanguard Group, Inc.	BUY	98.14	Ordinary	5,047	5,047
21-Feb-2020	The Vanguard Group, Inc.	BUY	97.90	Ordinary	9,464	9,464
21-Feb-2020	The Vanguard Group, Inc.	BUY	97.26	Ordinary	3,120	3,120
21-Feb-2020	The Vanguard Group, Inc.	BUY	97.90	Ordinary	340	340
21-Feb-2020	The Vanguard Group, Inc.	BUY	97.69	Ordinary	613	613
24-Feb-2020	The Vanguard Group, Inc.	SELL	93.80	Ordinary	(1,725)	(1,725)
24-Feb-2020	The Vanguard Group, Inc.	BUY	97.50	Ordinary	4,961	4,961
25-Feb-2020	The Vanguard Group, Inc.	SELL	93.25	Ordinary	(1,871)	(1,871)
25-Feb-2020	The Vanguard Group, Inc.	SELL	90.50	Ordinary	(690)	(690)
25-Feb-2020	The Vanguard Group, Inc.	BUY	93.25	Ordinary	6,756	6,756
25-Feb-2020	The Vanguard Group, Inc.	BUY	93.60	Ordinary	10,557	10,557
25-Feb-2020	The Vanguard Group, Inc.	BUY	90.50	Ordinary	2,340	2,340
25-Feb-2020	The Vanguard Group, Inc.	SELL	90.50	Ordinary	(1,160)	(1,160)
25-Feb-2020	The Vanguard Group, Inc.	BUY	90.50	Ordinary	231	231
25-Feb-2020	The Vanguard Group, Inc.	SELL	93.60	Ordinary	(7,910)	(7,910)
26-Feb-2020	The Vanguard Group, Inc.	BUY	92.27	Ordinary	6,348	6,348
26-Feb-2020	The Vanguard Group, Inc.	BUY	92.27	Ordinary	6,811	6,811
26-Feb-2020	The Vanguard Group, Inc.	BUY	91.89	Ordinary	7,387	7,387
26-Feb-2020	The Vanguard Group, Inc.	BUY	90.65	Ordinary	462	462
26-Feb-2020	The Vanguard Group, Inc.	BUY	90.65	Ordinary	693	693
26-Feb-2020	The Vanguard Group, Inc.	BUY	92.27	Ordinary	6,107	6,107
26-Feb-2020	The Vanguard Group, Inc.	BUY	91.89	Ordinary	691	691
26-Feb-2020	The Vanguard Group, Inc.	BUY	91.89	Ordinary	1,970	1,970
27-Feb-2020	The Vanguard Group, Inc.	BUY	91.44	Ordinary	10,620	10,620
27-Feb-2020	The Vanguard Group, Inc.	BUY	88.52	Ordinary	1,349	1,349
27-Feb-2020	The Vanguard Group, Inc.	BUY	90.41	Ordinary	54	54
28-Feb-2020	The Vanguard Group, Inc.	BUY	87.27	Ordinary	11,427	11,427
28-Feb-2020	The Vanguard Group, Inc.	BUY	86.75	Ordinary	13,806	13,806
28-Feb-2020	The Vanguard Group, Inc.	BUY	86.75	Ordinary	9,266	9,266
28-Feb-2020	The Vanguard Group, Inc.	SELL	87.17	Ordinary	(1,359)	(1,359)
2-Mar-2020	The Vanguard Group, Inc.	SELL	89.17	Ordinary	(3,120)	(3,120)
2-Mar-2020	The Vanguard Group, Inc.	SELL	86.64	Ordinary	(230)	(230)
3-Mar-2020	The Vanguard Group, Inc.	BUY	88.80	Ordinary	149	149
4-Mar-2020	The Vanguard Group, Inc.	BUY	88.80	Ordinary	5,032	5,032
4-Mar-2020	The Vanguard Group, Inc.	BUY	90.00	Ordinary	151	151
4-Mar-2020	The Vanguard Group, Inc.	BUY	90.00	Ordinary	298	298
4-Mar-2020	The Vanguard Group, Inc.	BUY	90.00	Ordinary	149	149
4-Mar-2020	The Vanguard Group, Inc.	BUY	90.00	Ordinary	149	149
5-Mar-2020	The Vanguard Group, Inc.	BUY	90.50	Ordinary	8,320	8,320
5-Mar-2020	The Vanguard Group, Inc.	BUY	88.45	Ordinary	736	736
5-Mar-2020	The Vanguard Group, Inc.	BUY	88.45	Ordinary	790	790
5-Mar-2020	The Vanguard Group, Inc.	SELL	88.45	Ordinary	(44,818)	(44,818)
6-Mar-2020	The Vanguard Group, Inc.	SELL	86.39	Ordinary	(2,340)	(2,340)
6-Mar-2020	The Vanguard Group, Inc.	BUY	86.25	Ordinary	196	196
6-Mar-2020	The Vanguard Group, Inc.	SELL	86.25	Ordinary	(32,769)	(32,769)
9-Mar-2020	The Vanguard Group, Inc.	SELL	80.77	Ordinary	(8,133)	(8,133)
10-Mar-2020	The Vanguard Group, Inc.	BUY	78.58	Ordinary	34,627	34,627
10-Mar-2020	The Vanguard Group, Inc.	SELL	84.78	Ordinary	(1,950)	(1,950)
10-Mar-2020	The Vanguard Group, Inc.	BUY	84.78	Ordinary	904	904
10-Mar-2020	The Vanguard Group, Inc.	SELL	78.50	Ordinary	(349)	(349)
10-Mar-2020	The Vanguard Group, Inc.	BUY	83.61	Ordinary	149	149
10-Mar-2020	The Vanguard Group, Inc.	SELL	83.61	Ordinary	(2,384)	(2,384)
11-Mar-2020	The Vanguard Group, Inc.	SELL	85.11	Ordinary	(400)	(400)
11-Mar-2020	The Vanguard Group, Inc.	BUY	84.94	Ordinary	25,444	25,444

Date of change	Person whose relevant interest changed	Nature of Change(6)	Consideration given in relation to change(7)	Class	Number of securities affected	Person's votes affected
11-Mar-2020	The Vanguard Group, Inc.	SELL	81.86	Ordinary	(1,170)	(1,170)
11-Mar-2020	The Vanguard Group, Inc.	BUY	84.94	Ordinary	747	747
11-Mar-2020	The Vanguard Group, Inc.	BUY	82.71	Ordinary	44	44
12-Mar-2020	The Vanguard Group, Inc.	BUY	81.88	Ordinary	10,600	10,600
12-Mar-2020	The Vanguard Group, Inc.	SELL	73.71	Ordinary	(4,290)	(4,290)
12-Mar-2020	The Vanguard Group, Inc.	BUY	73.71	Ordinary	2,760	2,760
12-Mar-2020	The Vanguard Group, Inc.	BUY	77.40	Ordinary	298	298
12-Mar-2020	The Vanguard Group, Inc.	BUY	77.40	Ordinary	149	149
12-Mar-2020	The Vanguard Group, Inc.	BUY	77.40	Ordinary	1,265	1,265
17-Jul-2018	Vanguard Investments Australia Ltd.	BUY	79.16	Ordinary	4,163	4,163
18-Jul-2018	Vanguard Investments Australia Ltd.	BUY	80.06	Ordinary	3,011	3,011
18-Jul-2018	Vanguard Investments Australia Ltd.	SELL	79.51	Ordinary	(4,119)	(4,119)
19-Jul-2018	Vanguard Investments Australia Ltd.	BUY	80.62	Ordinary	4,708	4,708
20-Jul-2018	Vanguard Investments Australia Ltd.	BUY	80.08	Ordinary	4,257	4,257
27-Jul-2018	Vanguard Investments Australia Ltd.	BUY	81.09	Ordinary	5,253	5,253
2-Aug-2018	Vanguard Investments Australia Ltd.	BUY	77.65	Ordinary	3,474	3,474
3-Aug-2018	Vanguard Investments Australia Ltd.	SELL	76.54	Ordinary	(3,202)	(3,202)
3-Aug-2018	Vanguard Investments Australia Ltd.	BUY	76.54	Ordinary	7,511	7,511
7-Aug-2018	Vanguard Investments Australia Ltd.	BUY	76.40	Ordinary	6,159	6,159
15-Aug-2018	Vanguard Investments Australia Ltd.	BUY	73.75	Ordinary	238	238
15-Aug-2018	Vanguard Investments Australia Ltd.	BUY	73.75	Ordinary	2,310	2,310
15-Aug-2018	Vanguard Investments Australia Ltd.	BUY	73.75	Ordinary	7,206	7,206
16-Aug-2018	Vanguard Investments Australia Ltd.	SELL	72.92	Ordinary	(1,244)	(1,244)
21-Aug-2018	Vanguard Investments Australia Ltd.	BUY	73.00	Ordinary	3,840	3,840
27-Aug-2018	Vanguard Investments Australia Ltd.	BUY	72.78	Ordinary	11,913	11,913
3-Sep-2018	Vanguard Investments Australia Ltd.	SELL	71.77	Ordinary	(116)	(116)
4-Sep-2018	Vanguard Investments Australia Ltd.	BUY	71.40	Ordinary	4,213	4,213
4-Sep-2018	Vanguard Investments Australia Ltd.	BUY	71.40	Ordinary	6,533	6,533
6-Sep-2018	Vanguard Investments Australia Ltd.	BUY	70.30	Ordinary	5,390	5,390
7-Sep-2018	Vanguard Investments Australia Ltd.	BUY	71.50	Ordinary	5,371	5,371
10-Sep-2018	Vanguard Investments Australia Ltd.	SELL	70.95	Ordinary	(699)	(699)
10-Sep-2018	Vanguard Investments Australia Ltd.	SELL	70.95	Ordinary	(1,724)	(1,724)
10-Sep-2018	Vanguard Investments Australia Ltd.	BUY	70.95	Ordinary	3,810	3,810
11-Sep-2018	Vanguard Investments Australia Ltd.	SELL	71.32	Ordinary	(4,344)	(4,344)
17-Sep-2018	Vanguard Investments Australia Ltd.	BUY	73.01	Ordinary	4,246	4,246
21-Sep-2018	Vanguard Investments Australia Ltd.	BUY	79.49	Ordinary	5,691	5,691
21-Sep-2018	Vanguard Investments Australia Ltd.	BUY	79.49	Ordinary	1,273	1,273
21-Sep-2018	Vanguard Investments Australia Ltd.	BUY	79.49	Ordinary	7,332	7,332
21-Sep-2018	Vanguard Investments Australia Ltd.	BUY	79.49	Ordinary	472	472
21-Sep-2018	Vanguard Investments Australia Ltd.	BUY	79.49	Ordinary	2,626	2,626
21-Sep-2018	Vanguard Investments Australia Ltd.	BUY	79.49	Ordinary	16,296	16,296
26-Sep-2018	Vanguard Investments Australia Ltd.	BUY	80.03	Ordinary	2,334	2,334
27-Sep-2018	Vanguard Investments Australia Ltd.	BUY	79.69	Ordinary	1,310	1,310
27-Sep-2018	Vanguard Investments Australia Ltd.	BUY	79.69	Ordinary	7,008	7,008
27-Sep-2018	Vanguard Investments Australia Ltd.	BUY	79.69	Ordinary	1,259	1,259
27-Sep-2018	Vanguard Investments Australia Ltd.	BUY	79.69	Ordinary	1,475	1,475
27-Sep-2018	Vanguard Investments Australia Ltd.	BUY	79.69	Ordinary	7,379	7,379
27-Sep-2018	Vanguard Investments Australia Ltd.	BUY	79.69	Ordinary	513	513
27-Sep-2018	Vanguard Investments Australia Ltd.	BUY	79.69	Ordinary	4,498	4,498
27-Sep-2018	Vanguard Investments Australia Ltd.	BUY	79.69	Ordinary	7,980	7,980
27-Sep-2018	Vanguard Investments Australia Ltd.	BUY	79.23	Ordinary	30,107	30,107
28-Sep-2018	Vanguard Investments Australia Ltd.	SELL	78.76	Ordinary	(416)	(416)
1-Oct-2018	Vanguard Investments Australia Ltd.	BUY	78.65	Ordinary	3,456	3,456
8-Oct-2018	Vanguard Investments Australia Ltd.	BUY	78.76	Ordinary	3,447	3,447
10-Oct-2018	Vanguard Investments Australia Ltd.	SELL	79.31	Ordinary	(3,011)	(3,011)
10-Oct-2018	Vanguard Investments Australia Ltd.	SELL	79.17	Ordinary	(3,091)	(3,091)
11-Oct-2018	Vanguard Investments Australia Ltd.	BUY	76.61	Ordinary	4,644	4,644
12-Oct-2018	Vanguard Investments Australia Ltd.	BUY	78.03	Ordinary	18,483	18,483
16-Oct-2018	Vanguard Investments Australia Ltd.	SELL	78.70	Ordinary	(1,839)	(1,839)
17-Oct-2018	Vanguard Investments Australia Ltd.	BUY	78.51	Ordinary	6,477	6,477
17-Oct-2018	Vanguard Investments Australia Ltd.	BUY	78.51	Ordinary	3,503	3,503
22-Oct-2018	Vanguard Investments Australia Ltd.	SELL	78.28	Ordinary	(1,243)	(1,243)
24-Oct-2018	Vanguard Investments Australia Ltd.	BUY	77.00	Ordinary	4,548	4,548
25-Oct-2018	Vanguard Investments Australia Ltd.	BUY	73.52	Ordinary	9,025	9,025
25-Oct-2018	Vanguard Investments Australia Ltd.	SELL	73.52	Ordinary	(2,520)	(2,520)
25-Oct-2018	Vanguard Investments Australia Ltd.	BUY	73.52	Ordinary	5,306	5,306
26-Oct-2018	Vanguard Investments Australia Ltd.	BUY	74.16	Ordinary	13,487	13,487
29-Oct-2018	Vanguard Investments Australia Ltd.	BUY	74.70	Ordinary	3,467	3,467

Date of change	Person whose relevant interest changed	Nature of Change(6)	Consideration given in relation to change(7)	Class	Number of securities affected	Person's votes affected
31-Oct-2018	Vanguard Investments Australia Ltd.	BUY	76.40	Ordinary	6,032	6,032
31-Oct-2018	Vanguard Investments Australia Ltd.	BUY	76.40	Ordinary	1,131	1,131
1-Nov-2018	Vanguard Investments Australia Ltd.	BUY	78.00	Ordinary	3,886	3,886
1-Nov-2018	Vanguard Investments Australia Ltd.	BUY	78.00	Ordinary	754	754
2-Nov-2018	Vanguard Investments Australia Ltd.	BUY	78.37	Ordinary	4,901	4,901
6-Nov-2018	Vanguard Investments Australia Ltd.	BUY	81.08	Ordinary	7,055	7,055
12-Nov-2018	Vanguard Investments Australia Ltd.	BUY	82.54	Ordinary	64,331	64,331
12-Nov-2018	Vanguard Investments Australia Ltd.	SELL	69.69	Ordinary	(618,038)	(618,038)
12-Nov-2018	Vanguard Investments Australia Ltd.	BUY	82.54	Ordinary	8,458	8,458
12-Nov-2018	Vanguard Investments Australia Ltd.	SELL	69.69	Ordinary	(73,025)	(73,025)
12-Nov-2018	Vanguard Investments Australia Ltd.	BUY	82.54	Ordinary	80,426	80,426
12-Nov-2018	Vanguard Investments Australia Ltd.	SELL	69.69	Ordinary	(689,757)	(689,757)
12-Nov-2018	Vanguard Investments Australia Ltd.	BUY	82.54	Ordinary	3,815	3,815
12-Nov-2018	Vanguard Investments Australia Ltd.	SELL	69.69	Ordinary	(37,116)	(37,116)
12-Nov-2018	Vanguard Investments Australia Ltd.	BUY	82.54	Ordinary	33,429	33,429
12-Nov-2018	Vanguard Investments Australia Ltd.	SELL	69.69	Ordinary	(294,503)	(294,503)
12-Nov-2018	Vanguard Investments Australia Ltd.	BUY	82.54	Ordinary	69,820	69,820
12-Nov-2018	Vanguard Investments Australia Ltd.	SELL	69.69	Ordinary	(538,853)	(538,853)
12-Nov-2018	Vanguard Investments Australia Ltd.	BUY	82.58	Ordinary	4,992	4,992
13-Nov-2018	Vanguard Investments Australia Ltd.	BUY	80.63	Ordinary	63,566	63,566
13-Nov-2018	Vanguard Investments Australia Ltd.	BUY	80.63	Ordinary	8,356	8,356
13-Nov-2018	Vanguard Investments Australia Ltd.	BUY	80.63	Ordinary	79,296	79,296
13-Nov-2018	Vanguard Investments Australia Ltd.	BUY	80.63	Ordinary	3,762	3,762
13-Nov-2018	Vanguard Investments Australia Ltd.	BUY	80.63	Ordinary	33,034	33,034
13-Nov-2018	Vanguard Investments Australia Ltd.	BUY	80.63	Ordinary	68,974	68,974
14-Nov-2018	Vanguard Investments Australia Ltd.	BUY	78.57	Ordinary	64,243	64,243
14-Nov-2018	Vanguard Investments Australia Ltd.	BUY	78.57	Ordinary	8,442	8,442
14-Nov-2018	Vanguard Investments Australia Ltd.	BUY	78.57	Ordinary	80,118	80,118
14-Nov-2018	Vanguard Investments Australia Ltd.	BUY	78.57	Ordinary	3,803	3,803
14-Nov-2018	Vanguard Investments Australia Ltd.	BUY	78.57	Ordinary	33,376	33,376
14-Nov-2018	Vanguard Investments Australia Ltd.	BUY	78.57	Ordinary	69,690	69,690
15-Nov-2018	Vanguard Investments Australia Ltd.	SELL	77.84	Ordinary	(7,588)	(7,588)
15-Nov-2018	Vanguard Investments Australia Ltd.	BUY	77.84	Ordinary	167,721	167,721
15-Nov-2018	Vanguard Investments Australia Ltd.	BUY	77.49	Ordinary	103,344	103,344
15-Nov-2018	Vanguard Investments Australia Ltd.	BUY	77.84	Ordinary	18,382	18,382
15-Nov-2018	Vanguard Investments Australia Ltd.	BUY	77.49	Ordinary	11,327	11,327
15-Nov-2018	Vanguard Investments Australia Ltd.	SELL	77.84	Ordinary	(13,469)	(13,469)
15-Nov-2018	Vanguard Investments Australia Ltd.	SELL	77.84	Ordinary	(30,167)	(30,167)
15-Nov-2018	Vanguard Investments Australia Ltd.	BUY	77.84	Ordinary	169,160	169,160
15-Nov-2018	Vanguard Investments Australia Ltd.	BUY	77.49	Ordinary	104,231	104,231
15-Nov-2018	Vanguard Investments Australia Ltd.	BUY	77.84	Ordinary	1,198	1,198
15-Nov-2018	Vanguard Investments Australia Ltd.	BUY	77.49	Ordinary	739	739
15-Nov-2018	Vanguard Investments Australia Ltd.	BUY	77.84	Ordinary	74,876	74,876
15-Nov-2018	Vanguard Investments Australia Ltd.	BUY	77.49	Ordinary	46,136	46,136
15-Nov-2018	Vanguard Investments Australia Ltd.	BUY	77.84	Ordinary	113,277	113,277
15-Nov-2018	Vanguard Investments Australia Ltd.	BUY	77.49	Ordinary	69,798	69,798
15-Nov-2018	Vanguard Investments Australia Ltd.	SELL	77.84	Ordinary	(3,048)	(3,048)
15-Nov-2018	Vanguard Investments Australia Ltd.	SELL	77.84	Ordinary	(307,559)	(307,559)
16-Nov-2018	Vanguard Investments Australia Ltd.	BUY	79.61	Ordinary	148	148
19-Nov-2018	Vanguard Investments Australia Ltd.	BUY	79.68	Ordinary	13,141	13,141
19-Nov-2018	Vanguard Investments Australia Ltd.	SELL	79.44	Ordinary	(1,962)	(1,962)
21-Nov-2018	Vanguard Investments Australia Ltd.	BUY	77.32	Ordinary	4,392	4,392
22-Nov-2018	Vanguard Investments Australia Ltd.	BUY	77.02	Ordinary	4,844	4,844
23-Nov-2018	Vanguard Investments Australia Ltd.	BUY	76.63	Ordinary	6,844	6,844
29-Nov-2018	Vanguard Investments Australia Ltd.	BUY	73.25	Ordinary	3,784	3,784
30-Nov-2018	Vanguard Investments Australia Ltd.	SELL	73.37	Ordinary	(323)	(323)
3-Dec-2018	Vanguard Investments Australia Ltd.	BUY	74.99	Ordinary	4,498	4,498
3-Dec-2018	Vanguard Investments Australia Ltd.	BUY	74.99	Ordinary	4,475	4,475
4-Dec-2018	Vanguard Investments Australia Ltd.	BUY	73.51	Ordinary	59,955	59,955
6-Dec-2018	Vanguard Investments Australia Ltd.	SELL	72.21	Ordinary	(7,158)	(7,158)
7-Dec-2018	Vanguard Investments Australia Ltd.	BUY	72.34	Ordinary	11,621	11,621
11-Dec-2018	Vanguard Investments Australia Ltd.	BUY	72.88	Ordinary	6,960	6,960
11-Dec-2018	Vanguard Investments Australia Ltd.	BUY	72.88	Ordinary	4,176	4,176
12-Dec-2018	Vanguard Investments Australia Ltd.	BUY	74.10	Ordinary	264,817	264,817
14-Dec-2018	Vanguard Investments Australia Ltd.	SELL	74.57	Ordinary	(2,088)	(2,088)
20-Dec-2018	Vanguard Investments Australia Ltd.	SELL	75.11	Ordinary	(1,712)	(1,712)
20-Dec-2018	Vanguard Investments Australia Ltd.	BUY	75.11	Ordinary	354	354
21-Dec-2018	Vanguard Investments Australia Ltd.	SELL	75.69	Ordinary	(1,793)	(1,793)

Date of change	Person whose relevant interest changed	Nature of Change(6)	Consideration given in relation to change(7)	Class	Number of securities affected	Person's votes affected
21-Dec-2018	Vanguard Investments Australia Ltd.	BUY	75.66	Ordinary	21,664	21,664
21-Dec-2018	Vanguard Investments Australia Ltd.	BUY	75.66	Ordinary	2,745	2,745
21-Dec-2018	Vanguard Investments Australia Ltd.	BUY	75.66	Ordinary	1,165	1,165
21-Dec-2018	Vanguard Investments Australia Ltd.	BUY	75.66	Ordinary	2,677	2,677
21-Dec-2018	Vanguard Investments Australia Ltd.	BUY	75.66	Ordinary	16,765	16,765
21-Dec-2018	Vanguard Investments Australia Ltd.	BUY	75.66	Ordinary	10,599	10,599
21-Dec-2018	Vanguard Investments Australia Ltd.	BUY	75.66	Ordinary	22,105	22,105
21-Dec-2018	Vanguard Investments Australia Ltd.	BUY	75.66	Ordinary	30,048	30,048
27-Dec-2018	Vanguard Investments Australia Ltd.	BUY	77.66	Ordinary	2,082	2,082
31-Dec-2018	Vanguard Investments Australia Ltd.	BUY	78.69	Ordinary	10,883	10,883
31-Dec-2018	Vanguard Investments Australia Ltd.	SELL	78.47	Ordinary	(196)	(196)
2-Jan-2019	Vanguard Investments Australia Ltd.	SELL	76.65	Ordinary	(1,450)	(1,450)
8-Jan-2019	Vanguard Investments Australia Ltd.	BUY	79.30	Ordinary	3,470	3,470
10-Jan-2019	Vanguard Investments Australia Ltd.	BUY	80.13	Ordinary	146	146
11-Jan-2019	Vanguard Investments Australia Ltd.	BUY	79.65	Ordinary	4,164	4,164
11-Jan-2019	Vanguard Investments Australia Ltd.	BUY	79.66	Ordinary	6,484	6,484
18-Jan-2019	Vanguard Investments Australia Ltd.	BUY	80.56	Ordinary	391	391
18-Jan-2019	Vanguard Investments Australia Ltd.	BUY	80.57	Ordinary	823	823
18-Jan-2019	Vanguard Investments Australia Ltd.	BUY	80.57	Ordinary	9,541	9,541
21-Jan-2019	Vanguard Investments Australia Ltd.	SELL	80.51	Ordinary	(3,724)	(3,724)
22-Jan-2019	Vanguard Investments Australia Ltd.	SELL	80.01	Ordinary	(212)	(212)
29-Jan-2019	Vanguard Investments Australia Ltd.	BUY	83.37	Ordinary	6,757	6,757
30-Jan-2019	Vanguard Investments Australia Ltd.	BUY	87.30	Ordinary	1,384	1,384
30-Jan-2019	Vanguard Investments Australia Ltd.	BUY	86.72	Ordinary	4,252	4,252
1-Feb-2019	Vanguard Investments Australia Ltd.	SELL	87.82	Ordinary	(1,134)	(1,134)
1-Feb-2019	Vanguard Investments Australia Ltd.	BUY	87.57	Ordinary	9,141	9,141
4-Feb-2019	Vanguard Investments Australia Ltd.	BUY	86.67	Ordinary	1,455	1,455
5-Feb-2019	Vanguard Investments Australia Ltd.	SELL	89.26	Ordinary	(24,640)	(24,640)
12-Feb-2019	Vanguard Investments Australia Ltd.	SELL	92.02	Ordinary	(3,266)	(3,266)
13-Feb-2019	Vanguard Investments Australia Ltd.	BUY	91.06	Ordinary	14,570	14,570
15-Feb-2019	Vanguard Investments Australia Ltd.	SELL	91.30	Ordinary	(1,890)	(1,890)
15-Feb-2019	Vanguard Investments Australia Ltd.	SELL	91.30	Ordinary	(256)	(256)
19-Feb-2019	Vanguard Investments Australia Ltd.	BUY	92.52	Ordinary	3,872	3,872
20-Feb-2019	Vanguard Investments Australia Ltd.	SELL	94.94	Ordinary	(2,185)	(2,185)
25-Feb-2019	Vanguard Investments Australia Ltd.	BUY	95.13	Ordinary	10,915	10,915
26-Feb-2019	Vanguard Investments Australia Ltd.	SELL	94.16	Ordinary	(9,407)	(9,407)
26-Feb-2019	Vanguard Investments Australia Ltd.	BUY	94.56	Ordinary	3,520	3,520
28-Feb-2019	Vanguard Investments Australia Ltd.	BUY	96.22	Ordinary	415	415
5-Mar-2019	Vanguard Investments Australia Ltd.	BUY	95.61	Ordinary	22,656	22,656
6-Mar-2019	Vanguard Investments Australia Ltd.	BUY	96.92	Ordinary	194	194
7-Mar-2019	Vanguard Investments Australia Ltd.	SELL	92.05	Ordinary	(1,973)	(1,973)
11-Mar-2019	Vanguard Investments Australia Ltd.	SELL	89.99	Ordinary	(1,102)	(1,102)
12-Mar-2019	Vanguard Investments Australia Ltd.	SELL	91.13	Ordinary	(2,562)	(2,562)
15-Mar-2019	Vanguard Investments Australia Ltd.	BUY	91.65	Ordinary	10,372	10,372
15-Mar-2019	Vanguard Investments Australia Ltd.	BUY	91.65	Ordinary	599	599
15-Mar-2019	Vanguard Investments Australia Ltd.	BUY	91.65	Ordinary	1,688	1,688
15-Mar-2019	Vanguard Investments Australia Ltd.	SELL	91.65	Ordinary	(2,319)	(2,319)
15-Mar-2019	Vanguard Investments Australia Ltd.	BUY	91.65	Ordinary	4,349	4,349
15-Mar-2019	Vanguard Investments Australia Ltd.	BUY	91.65	Ordinary	8,099	8,099
15-Mar-2019	Vanguard Investments Australia Ltd.	BUY	91.65	Ordinary	4,334	4,334
19-Mar-2019	Vanguard Investments Australia Ltd.	BUY	94.01	Ordinary	4,896	4,896
19-Mar-2019	Vanguard Investments Australia Ltd.	SELL	94.75	Ordinary	(1,060)	(1,060)
21-Mar-2019	Vanguard Investments Australia Ltd.	SELL	93.50	Ordinary	(3,427)	(3,427)
21-Mar-2019	Vanguard Investments Australia Ltd.	BUY	93.50	Ordinary	8,938	8,938
22-Mar-2019	Vanguard Investments Australia Ltd.	BUY	94.17	Ordinary	4,999	4,999
29-Mar-2019	Vanguard Investments Australia Ltd.	SELL	97.91	Ordinary	(231)	(231)
1-Apr-2019	Vanguard Investments Australia Ltd.	BUY	99.53	Ordinary	394	394
1-Apr-2019	Vanguard Investments Australia Ltd.	BUY	99.53	Ordinary	11,175	11,175
1-Apr-2019	Vanguard Investments Australia Ltd.	BUY	99.53	Ordinary	1,109	1,109
1-Apr-2019	Vanguard Investments Australia Ltd.	SELL	99.53	Ordinary	(20,358)	(20,358)
1-Apr-2019	Vanguard Investments Australia Ltd.	SELL	99.53	Ordinary	(432)	(432)
1-Apr-2019	Vanguard Investments Australia Ltd.	BUY	99.53	Ordinary	7,877	7,877
2-Apr-2019	Vanguard Investments Australia Ltd.	BUY	99.28	Ordinary	863	863
2-Apr-2019	Vanguard Investments Australia Ltd.	BUY	99.28	Ordinary	1,888	1,888
2-Apr-2019	Vanguard Investments Australia Ltd.	BUY	99.28	Ordinary	5,264	5,264
2-Apr-2019	Vanguard Investments Australia Ltd.	BUY	99.28	Ordinary	11,000	11,000
2-Apr-2019	Vanguard Investments Australia Ltd.	BUY	98.43	Ordinary	2,464	2,464
3-Apr-2019	Vanguard Investments Australia Ltd.	SELL	100.32	Ordinary	(236)	(236)

Date of change	Person whose relevant interest changed	Nature of Change(6)	Consideration given in relation to change(7)	Class	Number of securities affected	Person's votes affected
5-Apr-2019	Vanguard Investments Australia Ltd.	BUY	100.03	Ordinary	4,918	4,918
8-Apr-2019	Vanguard Investments Australia Ltd.	BUY	101.48	Ordinary	2,816	2,816
9-Apr-2019	Vanguard Investments Australia Ltd.	SELL	101.58	Ordinary	(924)	(924)
9-Apr-2019	Vanguard Investments Australia Ltd.	BUY	101.58	Ordinary	111,274	111,274
11-Apr-2019	Vanguard Investments Australia Ltd.	BUY	100.48	Ordinary	6,846	6,846
12-Apr-2019	Vanguard Investments Australia Ltd.	SELL	100.50	Ordinary	(1,122)	(1,122)
12-Apr-2019	Vanguard Investments Australia Ltd.	SELL	100.50	Ordinary	(120)	(120)
16-Apr-2019	Vanguard Investments Australia Ltd.	BUY	101.20	Ordinary	21,547	21,547
18-Apr-2019	Vanguard Investments Australia Ltd.	SELL	97.74	Ordinary	(1,072)	(1,072)
26-Apr-2019	Vanguard Investments Australia Ltd.	SELL	98.07	Ordinary	(1,847)	(1,847)
30-Apr-2019	Vanguard Investments Australia Ltd.	SELL	95.37	Ordinary	(5,492)	(5,492)
30-Apr-2019	Vanguard Investments Australia Ltd.	BUY	95.37	Ordinary	4,200	4,200
1-May-2019	Vanguard Investments Australia Ltd.	BUY	95.83	Ordinary	1,604	1,604
1-May-2019	Vanguard Investments Australia Ltd.	BUY	95.81	Ordinary	5,174	5,174
1-May-2019	Vanguard Investments Australia Ltd.	BUY	95.81	Ordinary	6,171	6,171
1-May-2019	Vanguard Investments Australia Ltd.	BUY	95.83	Ordinary	1,925	1,925
1-May-2019	Vanguard Investments Australia Ltd.	BUY	95.83	Ordinary	3,635	3,635
1-May-2019	Vanguard Investments Australia Ltd.	BUY	95.81	Ordinary	11,707	11,707
6-May-2019	Vanguard Investments Australia Ltd.	BUY	93.81	Ordinary	6,728	6,728
7-May-2019	Vanguard Investments Australia Ltd.	SELL	96.05	Ordinary	(1,005)	(1,005)
10-May-2019	Vanguard Investments Australia Ltd.	BUY	96.54	Ordinary	616	616
10-May-2019	Vanguard Investments Australia Ltd.	BUY	96.54	Ordinary	1,176	1,176
10-May-2019	Vanguard Investments Australia Ltd.	BUY	96.54	Ordinary	687	687
10-May-2019	Vanguard Investments Australia Ltd.	BUY	95.27	Ordinary	3,150	3,150
14-May-2019	Vanguard Investments Australia Ltd.	SELL	96.22	Ordinary	(1,222)	(1,222)
15-May-2019	Vanguard Investments Australia Ltd.	SELL	98.32	Ordinary	(2,342)	(2,342)
16-May-2019	Vanguard Investments Australia Ltd.	BUY	98.93	Ordinary	9,013	9,013
17-May-2019	Vanguard Investments Australia Ltd.	BUY	101.21	Ordinary	247	247
17-May-2019	Vanguard Investments Australia Ltd.	BUY	101.35	Ordinary	3,520	3,520
21-May-2019	Vanguard Investments Australia Ltd.	BUY	101.27	Ordinary	3,540	3,540
22-May-2019	Vanguard Investments Australia Ltd.	BUY	100.89	Ordinary	3,132	3,132
23-May-2019	Vanguard Investments Australia Ltd.	SELL	100.98	Ordinary	(288)	(288)
27-May-2019	Vanguard Investments Australia Ltd.	SELL	103.02	Ordinary	(7,636)	(7,636)
28-May-2019	Vanguard Investments Australia Ltd.	SELL	105.28	Ordinary	(1,245)	(1,245)
28-May-2019	Vanguard Investments Australia Ltd.	BUY	105.31	Ordinary	3,480	3,480
29-May-2019	Vanguard Investments Australia Ltd.	SELL	104.19	Ordinary	(5,617)	(5,617)
29-May-2019	Vanguard Investments Australia Ltd.	SELL	104.37	Ordinary	(1,515)	(1,515)
30-May-2019	Vanguard Investments Australia Ltd.	BUY	101.05	Ordinary	20,870	20,870
3-Jun-2019	Vanguard Investments Australia Ltd.	SELL	97.11	Ordinary	(7,007)	(7,007)
3-Jun-2019	Vanguard Investments Australia Ltd.	SELL	97.11	Ordinary	(3,603)	(3,603)
4-Jun-2019	Vanguard Investments Australia Ltd.	BUY	98.80	Ordinary	337	337
4-Jun-2019	Vanguard Investments Australia Ltd.	BUY	98.56	Ordinary	3,480	3,480
6-Jun-2019	Vanguard Investments Australia Ltd.	BUY	96.72	Ordinary	872	872
6-Jun-2019	Vanguard Investments Australia Ltd.	BUY	96.72	Ordinary	4,200	4,200
7-Jun-2019	Vanguard Investments Australia Ltd.	BUY	98.00	Ordinary	1,267	1,267
7-Jun-2019	Vanguard Investments Australia Ltd.	SELL	98.00	Ordinary	(345)	(345)
7-Jun-2019	Vanguard Investments Australia Ltd.	BUY	98.00	Ordinary	408	408
7-Jun-2019	Vanguard Investments Australia Ltd.	BUY	97.72	Ordinary	15,840	15,840
11-Jun-2019	Vanguard Investments Australia Ltd.	SELL	100.55	Ordinary	(1,152)	(1,152)
12-Jun-2019	Vanguard Investments Australia Ltd.	BUY	102.74	Ordinary	12,134	12,134
17-Jun-2019	Vanguard Investments Australia Ltd.	BUY	103.86	Ordinary	2,808	2,808
18-Jun-2019	Vanguard Investments Australia Ltd.	BUY	103.66	Ordinary	56,895	56,895
19-Jun-2019	Vanguard Investments Australia Ltd.	BUY	106.10	Ordinary	46,606	46,606
20-Jun-2019	Vanguard Investments Australia Ltd.	SELL	101.36	Ordinary	(1,950)	(1,950)
20-Jun-2019	Vanguard Investments Australia Ltd.	BUY	101.43	Ordinary	34,390	34,390
21-Jun-2019	Vanguard Investments Australia Ltd.	BUY	101.54	Ordinary	1,672	1,672
21-Jun-2019	Vanguard Investments Australia Ltd.	BUY	101.54	Ordinary	574	574
21-Jun-2019	Vanguard Investments Australia Ltd.	SELL	101.54	Ordinary	(657)	(657)
21-Jun-2019	Vanguard Investments Australia Ltd.	BUY	101.54	Ordinary	7,262	7,262
21-Jun-2019	Vanguard Investments Australia Ltd.	BUY	101.61	Ordinary	274,218	274,218
21-Jun-2019	Vanguard Investments Australia Ltd.	BUY	101.54	Ordinary	2,118	2,118
21-Jun-2019	Vanguard Investments Australia Ltd.	BUY	101.54	Ordinary	18,507	18,507
24-Jun-2019	Vanguard Investments Australia Ltd.	BUY	101.36	Ordinary	88,671	88,671
25-Jun-2019	Vanguard Investments Australia Ltd.	SELL	102.38	Ordinary	(5,781)	(5,781)
25-Jun-2019	Vanguard Investments Australia Ltd.	BUY	102.50	Ordinary	77,283	77,283
26-Jun-2019	Vanguard Investments Australia Ltd.	BUY	103.16	Ordinary	984	984
26-Jun-2019	Vanguard Investments Australia Ltd.	BUY	102.89	Ordinary	11,708	11,708
27-Jun-2019	Vanguard Investments Australia Ltd.	SELL	106.26	Ordinary	(3,084)	(3,084)

Date of change	Person whose relevant interest changed	Nature of Change(6)	Consideration given in relation to change(7)	Class	Number of securities affected	Person's votes affected
27-Jun-2019	Vanguard Investments Australia Ltd.	BUY	106.26	Ordinary	1,316	1,316
27-Jun-2019	Vanguard Investments Australia Ltd.	BUY	106.26	Ordinary	2,471	2,471
28-Jun-2019	Vanguard Investments Australia Ltd.	SELL	103.76	Ordinary	(261)	(261)
2-Jul-2019	Vanguard Investments Australia Ltd.	BUY	106.45	Ordinary	975	975
2-Jul-2019	Vanguard Investments Australia Ltd.	BUY	106.45	Ordinary	4,188	4,188
5-Jul-2019	Vanguard Investments Australia Ltd.	BUY	103.93	Ordinary	4,449	4,449
8-Jul-2019	Vanguard Investments Australia Ltd.	BUY	102.91	Ordinary	1,950	1,950
8-Jul-2019	Vanguard Investments Australia Ltd.	BUY	102.91	Ordinary	2,094	2,094
9-Jul-2019	Vanguard Investments Australia Ltd.	BUY	104.35	Ordinary	2,094	2,094
9-Jul-2019	Vanguard Investments Australia Ltd.	BUY	104.35	Ordinary	4,476	4,476
11-Jul-2019	Vanguard Investments Australia Ltd.	BUY	104.84	Ordinary	830	830
11-Jul-2019	Vanguard Investments Australia Ltd.	BUY	104.51	Ordinary	2,094	2,094
12-Jul-2019	Vanguard Investments Australia Ltd.	SELL	103.47	Ordinary	(438)	(438)
15-Jul-2019	Vanguard Investments Australia Ltd.	BUY	104.52	Ordinary	1,770	1,770
15-Jul-2019	Vanguard Investments Australia Ltd.	BUY	104.52	Ordinary	6,946	6,946
15-Jul-2019	Vanguard Investments Australia Ltd.	BUY	103.91	Ordinary	975	975
16-Jul-2019	Vanguard Investments Australia Ltd.	BUY	102.78	Ordinary	1,400	1,400
16-Jul-2019	Vanguard Investments Australia Ltd.	BUY	102.78	Ordinary	5,404	5,404
16-Jul-2019	Vanguard Investments Australia Ltd.	BUY	102.78	Ordinary	803	803
16-Jul-2019	Vanguard Investments Australia Ltd.	BUY	104.51	Ordinary	5,246	5,246
16-Jul-2019	Vanguard Investments Australia Ltd.	BUY	104.51	Ordinary	966	966
16-Jul-2019	Vanguard Investments Australia Ltd.	BUY	104.51	Ordinary	3,105	3,105
16-Jul-2019	Vanguard Investments Australia Ltd.	BUY	103.25	Ordinary	4,188	4,188
16-Jul-2019	Vanguard Investments Australia Ltd.	BUY	103.25	Ordinary	4,374	4,374
18-Jul-2019	Vanguard Investments Australia Ltd.	SELL	102.36	Ordinary	(1,562)	(1,562)
19-Jul-2019	Vanguard Investments Australia Ltd.	SELL	102.32	Ordinary	(1,526)	(1,526)
19-Jul-2019	Vanguard Investments Australia Ltd.	BUY	102.32	Ordinary	4,557	4,557
22-Jul-2019	Vanguard Investments Australia Ltd.	SELL	103.17	Ordinary	(228,776)	(228,776)
22-Jul-2019	Vanguard Investments Australia Ltd.	BUY	103.17	Ordinary	975	975
23-Jul-2019	Vanguard Investments Australia Ltd.	SELL	102.76	Ordinary	(969)	(969)
24-Jul-2019	Vanguard Investments Australia Ltd.	BUY	100.51	Ordinary	2,804	2,804
26-Jul-2019	Vanguard Investments Australia Ltd.	SELL	97.89	Ordinary	(1,483)	(1,483)
30-Jul-2019	Vanguard Investments Australia Ltd.	BUY	99.00	Ordinary	3,839	3,839
31-Jul-2019	Vanguard Investments Australia Ltd.	BUY	98.90	Ordinary	6,651	6,651
31-Jul-2019	Vanguard Investments Australia Ltd.	BUY	98.90	Ordinary	975	975
1-Aug-2019	Vanguard Investments Australia Ltd.	SELL	97.81	Ordinary	(2,264)	(2,264)
2-Aug-2019	Vanguard Investments Australia Ltd.	SELL	94.77	Ordinary	(3,145)	(3,145)
6-Aug-2019	Vanguard Investments Australia Ltd.	BUY	91.39	Ordinary	1,300	1,300
6-Aug-2019	Vanguard Investments Australia Ltd.	BUY	91.39	Ordinary	3,150	3,150
6-Aug-2019	Vanguard Investments Australia Ltd.	BUY	91.39	Ordinary	3,150	3,150
6-Aug-2019	Vanguard Investments Australia Ltd.	BUY	91.39	Ordinary	2,326	2,326
7-Aug-2019	Vanguard Investments Australia Ltd.	BUY	89.50	Ordinary	2,275	2,275
7-Aug-2019	Vanguard Investments Australia Ltd.	BUY	89.50	Ordinary	4,093	4,093
8-Aug-2019	Vanguard Investments Australia Ltd.	BUY	88.52	Ordinary	3,850	3,850
8-Aug-2019	Vanguard Investments Australia Ltd.	BUY	88.52	Ordinary	5,170	5,170
9-Aug-2019	Vanguard Investments Australia Ltd.	BUY	87.69	Ordinary	3,445	3,445
12-Aug-2019	Vanguard Investments Australia Ltd.	BUY	85.28	Ordinary	3,850	3,850
13-Aug-2019	Vanguard Investments Australia Ltd.	SELL	85.80	Ordinary	(1,370)	(1,370)
14-Aug-2019	Vanguard Investments Australia Ltd.	BUY	87.94	Ordinary	884	884
14-Aug-2019	Vanguard Investments Australia Ltd.	BUY	87.94	Ordinary	1,304	1,304
14-Aug-2019	Vanguard Investments Australia Ltd.	BUY	87.94	Ordinary	7,195	7,195
15-Aug-2019	Vanguard Investments Australia Ltd.	BUY	85.60	Ordinary	1,304	1,304
16-Aug-2019	Vanguard Investments Australia Ltd.	BUY	84.72	Ordinary	5,773	5,773
19-Aug-2019	Vanguard Investments Australia Ltd.	BUY	84.96	Ordinary	6,455	6,455
20-Aug-2019	Vanguard Investments Australia Ltd.	SELL	85.02	Ordinary	(1,400)	(1,400)
20-Aug-2019	Vanguard Investments Australia Ltd.	SELL	85.02	Ordinary	(2,676)	(2,676)
20-Aug-2019	Vanguard Investments Australia Ltd.	SELL	85.02	Ordinary	(803)	(803)
20-Aug-2019	Vanguard Investments Australia Ltd.	BUY	85.83	Ordinary	2,318	2,318
20-Aug-2019	Vanguard Investments Australia Ltd.	SELL	85.83	Ordinary	(1,179)	(1,179)
20-Aug-2019	Vanguard Investments Australia Ltd.	BUY	85.83	Ordinary	2,911	2,911
21-Aug-2019	Vanguard Investments Australia Ltd.	BUY	83.70	Ordinary	978	978
21-Aug-2019	Vanguard Investments Australia Ltd.	BUY	83.70	Ordinary	2,593	2,593
22-Aug-2019	Vanguard Investments Australia Ltd.	BUY	84.21	Ordinary	281	281
22-Aug-2019	Vanguard Investments Australia Ltd.	BUY	84.21	Ordinary	1,309	1,309
22-Aug-2019	Vanguard Investments Australia Ltd.	BUY	84.21	Ordinary	4,533	4,533
27-Aug-2019	Vanguard Investments Australia Ltd.	BUY	83.76	Ordinary	2,268	2,268
27-Aug-2019	Vanguard Investments Australia Ltd.	BUY	83.76	Ordinary	145,644	145,644
27-Aug-2019	Vanguard Investments Australia Ltd.	BUY	83.76	Ordinary	401	401

Date of change	Person whose relevant interest changed	Nature of Change(6)	Consideration given in relation to change(7)	Class	Number of securities affected	Person's votes affected
27-Aug-2019	Vanguard Investments Australia Ltd.	BUY	83.76	Ordinary	3,963	3,963
28-Aug-2019	Vanguard Investments Australia Ltd.	BUY	85.83	Ordinary	3,796	3,796
29-Aug-2019	Vanguard Investments Australia Ltd.	BUY	85.68	Ordinary	984	984
30-Aug-2019	Vanguard Investments Australia Ltd.	BUY	87.58	Ordinary	9,260	9,260
30-Aug-2019	Vanguard Investments Australia Ltd.	BUY	87.58	Ordinary	1,570	1,570
2-Sep-2019	Vanguard Investments Australia Ltd.	BUY	88.83	Ordinary	7,744	7,744
3-Sep-2019	Vanguard Investments Australia Ltd.	BUY	88.15	Ordinary	36,693	36,693
4-Sep-2019	Vanguard Investments Australia Ltd.	BUY	88.41	Ordinary	5,475	5,475
4-Sep-2019	Vanguard Investments Australia Ltd.	BUY	88.41	Ordinary	1,312	1,312
5-Sep-2019	Vanguard Investments Australia Ltd.	BUY	90.03	Ordinary	157	157
5-Sep-2019	Vanguard Investments Australia Ltd.	BUY	90.03	Ordinary	1,320	1,320
5-Sep-2019	Vanguard Investments Australia Ltd.	BUY	90.03	Ordinary	4,211	4,211
5-Sep-2019	Vanguard Investments Australia Ltd.	BUY	90.03	Ordinary	7,056	7,056
9-Sep-2019	Vanguard Investments Australia Ltd.	BUY	90.31	Ordinary	1,320	1,320
10-Sep-2019	Vanguard Investments Australia Ltd.	BUY	90.04	Ordinary	2,699	2,699
12-Sep-2019	Vanguard Investments Australia Ltd.	BUY	92.68	Ordinary	2,339	2,339
13-Sep-2019	Vanguard Investments Australia Ltd.	BUY	93.29	Ordinary	1,694	1,694
13-Sep-2019	Vanguard Investments Australia Ltd.	SELL	93.29	Ordinary	(2,192)	(2,192)
17-Sep-2019	Vanguard Investments Australia Ltd.	SELL	92.65	Ordinary	(940)	(940)
17-Sep-2019	Vanguard Investments Australia Ltd.	BUY	92.65	Ordinary	1,246	1,246
17-Sep-2019	Vanguard Investments Australia Ltd.	BUY	92.65	Ordinary	6,707	6,707
18-Sep-2019	Vanguard Investments Australia Ltd.	SELL	92.92	Ordinary	(1,853)	(1,853)
19-Sep-2019	Vanguard Investments Australia Ltd.	BUY	93.04	Ordinary	990	990
20-Sep-2019	Vanguard Investments Australia Ltd.	BUY	92.44	Ordinary	1,604	1,604
20-Sep-2019	Vanguard Investments Australia Ltd.	SELL	92.47	Ordinary	(867)	(867)
20-Sep-2019	Vanguard Investments Australia Ltd.	SELL	92.47	Ordinary	(4,653)	(4,653)
20-Sep-2019	Vanguard Investments Australia Ltd.	BUY	92.44	Ordinary	2,051	2,051
20-Sep-2019	Vanguard Investments Australia Ltd.	BUY	92.44	Ordinary	3,530	3,530
23-Sep-2019	Vanguard Investments Australia Ltd.	BUY	92.84	Ordinary	5,280	5,280
24-Sep-2019	Vanguard Investments Australia Ltd.	BUY	93.04	Ordinary	705	705
25-Sep-2019	Vanguard Investments Australia Ltd.	SELL	91.01	Ordinary	(1,510)	(1,510)
25-Sep-2019	Vanguard Investments Australia Ltd.	BUY	91.01	Ordinary	4,928	4,928
27-Sep-2019	Vanguard Investments Australia Ltd.	BUY	91.60	Ordinary	2,303	2,303
27-Sep-2019	Vanguard Investments Australia Ltd.	BUY	91.60	Ordinary	1,316	1,316
27-Sep-2019	Vanguard Investments Australia Ltd.	BUY	91.60	Ordinary	4,224	4,224
30-Sep-2019	Vanguard Investments Australia Ltd.	SELL	92.67	Ordinary	(1,904)	(1,904)
30-Sep-2019	Vanguard Investments Australia Ltd.	SELL	92.67	Ordinary	(340)	(340)
30-Sep-2019	Vanguard Investments Australia Ltd.	SELL	92.67	Ordinary	(5,720)	(5,720)
2-Oct-2019	Vanguard Investments Australia Ltd.	BUY	90.98	Ordinary	9,569	9,569
2-Oct-2019	Vanguard Investments Australia Ltd.	BUY	90.98	Ordinary	1,730	1,730
2-Oct-2019	Vanguard Investments Australia Ltd.	BUY	90.98	Ordinary	3,834	3,834
2-Oct-2019	Vanguard Investments Australia Ltd.	BUY	91.09	Ordinary	6,612	6,612
2-Oct-2019	Vanguard Investments Australia Ltd.	SELL	91.09	Ordinary	(8,352)	(8,352)
3-Oct-2019	Vanguard Investments Australia Ltd.	BUY	87.96	Ordinary	5,611	5,611
3-Oct-2019	Vanguard Investments Australia Ltd.	BUY	87.25	Ordinary	1,938	1,938
4-Oct-2019	Vanguard Investments Australia Ltd.	BUY	87.65	Ordinary	1,661	1,661
4-Oct-2019	Vanguard Investments Australia Ltd.	BUY	87.65	Ordinary	4,920	4,920
4-Oct-2019	Vanguard Investments Australia Ltd.	BUY	87.65	Ordinary	5,916	5,916
7-Oct-2019	Vanguard Investments Australia Ltd.	BUY	87.74	Ordinary	2,317	2,317
9-Oct-2019	Vanguard Investments Australia Ltd.	BUY	87.75	Ordinary	1,615	1,615
10-Oct-2019	Vanguard Investments Australia Ltd.	BUY	87.92	Ordinary	1,300	1,300
10-Oct-2019	Vanguard Investments Australia Ltd.	BUY	87.92	Ordinary	2,259	2,259
11-Oct-2019	Vanguard Investments Australia Ltd.	BUY	89.97	Ordinary	1,756	1,756
11-Oct-2019	Vanguard Investments Australia Ltd.	BUY	89.97	Ordinary	2,784	2,784
14-Oct-2019	Vanguard Investments Australia Ltd.	BUY	91.91	Ordinary	48,905	48,905
14-Oct-2019	Vanguard Investments Australia Ltd.	SELL	91.91	Ordinary	(1,315)	(1,315)
14-Oct-2019	Vanguard Investments Australia Ltd.	SELL	91.91	Ordinary	(1,280)	(1,280)
16-Oct-2019	Vanguard Investments Australia Ltd.	BUY	89.81	Ordinary	57,955	57,955
17-Oct-2019	Vanguard Investments Australia Ltd.	BUY	87.22	Ordinary	257	257
17-Oct-2019	Vanguard Investments Australia Ltd.	BUY	87.22	Ordinary	1,292	1,292
18-Oct-2019	Vanguard Investments Australia Ltd.	BUY	87.87	Ordinary	969	969
18-Oct-2019	Vanguard Investments Australia Ltd.	SELL	87.87	Ordinary	(860)	(860)
18-Oct-2019	Vanguard Investments Australia Ltd.	BUY	87.87	Ordinary	3,480	3,480
18-Oct-2019	Vanguard Investments Australia Ltd.	BUY	87.94	Ordinary	8,217	8,217
21-Oct-2019	Vanguard Investments Australia Ltd.	BUY	88.03	Ordinary	3,704	3,704
22-Oct-2019	Vanguard Investments Australia Ltd.	BUY	89.43	Ordinary	3,480	3,480
22-Oct-2019	Vanguard Investments Australia Ltd.	BUY	89.43	Ordinary	2,017	2,017
23-Oct-2019	Vanguard Investments Australia Ltd.	SELL	89.95	Ordinary	(7,624)	(7,624)



Date of change	Person whose relevant interest changed	Nature of Change(6)	Consideration given in relation to change(7)	Class	Number of securities affected	Person's votes affected
23-Oct-2019	Vanguard Investments Australia Ltd.	BUY	89.80	Ordinary	3,853	3,853
23-Oct-2019	Vanguard Investments Australia Ltd.	BUY	89.80	Ordinary	1,570	1,570
24-Oct-2019	Vanguard Investments Australia Ltd.	SELL	90.39	Ordinary	(1,160)	(1,160)
28-Oct-2019	Vanguard Investments Australia Ltd.	BUY	91.25	Ordinary	3,480	3,480
30-Oct-2019	Vanguard Investments Australia Ltd.	BUY	91.20	Ordinary	11,720	11,720
30-Oct-2019	Vanguard Investments Australia Ltd.	BUY	91.20	Ordinary	1,292	1,292
30-Oct-2019	Vanguard Investments Australia Ltd.	BUY	91.20	Ordinary	969	969
30-Oct-2019	Vanguard Investments Australia Ltd.	BUY	91.14	Ordinary	9,046	9,046
31-Oct-2019	Vanguard Investments Australia Ltd.	BUY	90.88	Ordinary	7,408	7,408
31-Oct-2019	Vanguard Investments Australia Ltd.	BUY	90.88	Ordinary	8,352	8,352
31-Oct-2019	Vanguard Investments Australia Ltd.	BUY	90.80	Ordinary	12,506	12,506
31-Oct-2019	Vanguard Investments Australia Ltd.	SELL	90.88	Ordinary	(4,176)	(4,176)
1-Nov-2019	Vanguard Investments Australia Ltd.	SELL	90.49	Ordinary	(7,759)	(7,759)
1-Nov-2019	Vanguard Investments Australia Ltd.	SELL	90.44	Ordinary	(45,436)	(45,436)
1-Nov-2019	Vanguard Investments Australia Ltd.	BUY	90.49	Ordinary	1,292	1,292
1-Nov-2019	Vanguard Investments Australia Ltd.	BUY	90.49	Ordinary	969	969
1-Nov-2019	Vanguard Investments Australia Ltd.	BUY	90.49	Ordinary	4,286	4,286
4-Nov-2019	Vanguard Investments Australia Ltd.	SELL	93.72	Ordinary	(60,300)	(60,300)
4-Nov-2019	Vanguard Investments Australia Ltd.	BUY	93.69	Ordinary	9,090	9,090
5-Nov-2019	Vanguard Investments Australia Ltd.	SELL	94.84	Ordinary	(15,419)	(15,419)
5-Nov-2019	Vanguard Investments Australia Ltd.	BUY	94.84	Ordinary	1,292	1,292
5-Nov-2019	Vanguard Investments Australia Ltd.	BUY	94.84	Ordinary	4,176	4,176
7-Nov-2019	Vanguard Investments Australia Ltd.	BUY	95.16	Ordinary	1,292	1,292
7-Nov-2019	Vanguard Investments Australia Ltd.	SELL	95.16	Ordinary	(2,466)	(2,466)
7-Nov-2019	Vanguard Investments Australia Ltd.	BUY	95.16	Ordinary	2,812	2,812
11-Nov-2019	Vanguard Investments Australia Ltd.	SELL	92.98	Ordinary	(1,027)	(1,027)
11-Nov-2019	Vanguard Investments Australia Ltd.	BUY	92.93	Ordinary	8,900	8,900
12-Nov-2019	Vanguard Investments Australia Ltd.	SELL	93.36	Ordinary	(1,652)	(1,652)
12-Nov-2019	Vanguard Investments Australia Ltd.	BUY	93.36	Ordinary	975	975
12-Nov-2019	Vanguard Investments Australia Ltd.	BUY	93.36	Ordinary	3,839	3,839
13-Nov-2019	Vanguard Investments Australia Ltd.	BUY	91.80	Ordinary	3,827	3,827
13-Nov-2019	Vanguard Investments Australia Ltd.	BUY	91.80	Ordinary	1,050	1,050
14-Nov-2019	Vanguard Investments Australia Ltd.	BUY	92.36	Ordinary	7,066	7,066
14-Nov-2019	Vanguard Investments Australia Ltd.	BUY	92.36	Ordinary	884	884
15-Nov-2019	Vanguard Investments Australia Ltd.	BUY	93.54	Ordinary	1,300	1,300
19-Nov-2019	Vanguard Investments Australia Ltd.	SELL	95.20	Ordinary	(579)	(579)
19-Nov-2019	Vanguard Investments Australia Ltd.	BUY	95.20	Ordinary	4,550	4,550
20-Nov-2019	Vanguard Investments Australia Ltd.	SELL	94.41	Ordinary	(28,062)	(28,062)
20-Nov-2019	Vanguard Investments Australia Ltd.	BUY	94.41	Ordinary	2,450	2,450
21-Nov-2019	Vanguard Investments Australia Ltd.	SELL	93.30	Ordinary	(2,144)	(2,144)
21-Nov-2019	Vanguard Investments Australia Ltd.	BUY	93.30	Ordinary	1,300	1,300
21-Nov-2019	Vanguard Investments Australia Ltd.	BUY	93.30	Ordinary	7,350	7,350
22-Nov-2019	Vanguard Investments Australia Ltd.	BUY	94.05	Ordinary	1,326	1,326
22-Nov-2019	Vanguard Investments Australia Ltd.	BUY	94.05	Ordinary	975	975
22-Nov-2019	Vanguard Investments Australia Ltd.	BUY	94.05	Ordinary	7,209	7,209
25-Nov-2019	Vanguard Investments Australia Ltd.	BUY	95.92	Ordinary	7,081	7,081
26-Nov-2019	Vanguard Investments Australia Ltd.	SELL	95.98	Ordinary	(3,306)	(3,306)
26-Nov-2019	Vanguard Investments Australia Ltd.	SELL	95.98	Ordinary	(163)	(163)
27-Nov-2019	Vanguard Investments Australia Ltd.	BUY	97.00	Ordinary	8,470	8,470
28-Nov-2019	Vanguard Investments Australia Ltd.	BUY	97.39	Ordinary	975	975
29-Nov-2019	Vanguard Investments Australia Ltd.	BUY	96.90	Ordinary	1,957	1,957
29-Nov-2019	Vanguard Investments Australia Ltd.	BUY	96.90	Ordinary	4,188	4,188
2-Dec-2019	Vanguard Investments Australia Ltd.	BUY	97.52	Ordinary	18,175	18,175
3-Dec-2019	Vanguard Investments Australia Ltd.	BUY	97.02	Ordinary	1,950	1,950
3-Dec-2019	Vanguard Investments Australia Ltd.	BUY	97.02	Ordinary	5,248	5,248
4-Dec-2019	Vanguard Investments Australia Ltd.	BUY	95.03	Ordinary	1,625	1,625
4-Dec-2019	Vanguard Investments Australia Ltd.	BUY	95.03	Ordinary	7,678	7,678
5-Dec-2019	Vanguard Investments Australia Ltd.	BUY	95.79	Ordinary	251	251
5-Dec-2019	Vanguard Investments Australia Ltd.	BUY	95.79	Ordinary	5,651	5,651
9-Dec-2019	Vanguard Investments Australia Ltd.	BUY	97.42	Ordinary	1,320	1,320
9-Dec-2019	Vanguard Investments Australia Ltd.	BUY	97.42	Ordinary	1,300	1,300
9-Dec-2019	Vanguard Investments Australia Ltd.	BUY	97.42	Ordinary	4,176	4,176
11-Dec-2019	Vanguard Investments Australia Ltd.	BUY	99.10	Ordinary	6,687	6,687
11-Dec-2019	Vanguard Investments Australia Ltd.	BUY	99.10	Ordinary	6,983	6,983
12-Dec-2019	Vanguard Investments Australia Ltd.	SELL	99.02	Ordinary	(197)	(197)
13-Dec-2019	Vanguard Investments Australia Ltd.	BUY	100.60	Ordinary	1,300	1,300
13-Dec-2019	Vanguard Investments Australia Ltd.	BUY	100.60	Ordinary	3,470	3,470
17-Dec-2019	Vanguard Investments Australia Ltd.	BUY	103.24	Ordinary	78,559	78,559

Date of change	Person whose relevant interest changed	Nature of Change(6)	Consideration given in relation to change(7)	Class	Number of securities affected	Person's votes affected
18-Dec-2019	Vanguard Investments Australia Ltd.	SELL	102.24	Ordinary	(2,200)	(2,200)
18-Dec-2019	Vanguard Investments Australia Ltd.	BUY	102.25	Ordinary	16,657	16,657
18-Dec-2019	Vanguard Investments Australia Ltd.	BUY	102.24	Ordinary	4,858	4,858
18-Dec-2019	Vanguard Investments Australia Ltd.	BUY	102.42	Ordinary	10,372	10,372
19-Dec-2019	Vanguard Investments Australia Ltd.	BUY	102.24	Ordinary	4,877	4,877
19-Dec-2019	Vanguard Investments Australia Ltd.	BUY	102.21	Ordinary	62,847	62,847
20-Dec-2019	Vanguard Investments Australia Ltd.	BUY	103.30	Ordinary	1,101	1,101
20-Dec-2019	Vanguard Investments Australia Ltd.	SELL	103.56	Ordinary	(3,883)	(3,883)
20-Dec-2019	Vanguard Investments Australia Ltd.	BUY	103.66	Ordinary	1,300	1,300
20-Dec-2019	Vanguard Investments Australia Ltd.	BUY	103.30	Ordinary	313,546	313,546
23-Dec-2019	Vanguard Investments Australia Ltd.	BUY	102.18	Ordinary	52,120	52,120
27-Dec-2019	Vanguard Investments Australia Ltd.	BUY	102.51	Ordinary	1,767	1,767
30-Dec-2019	Vanguard Investments Australia Ltd.	BUY	101.60	Ordinary	2,776	2,776
30-Dec-2019	Vanguard Investments Australia Ltd.	BUY	101.53	Ordinary	5,000	5,000
31-Dec-2019	Vanguard Investments Australia Ltd.	BUY	100.40	Ordinary	8,811	8,811
31-Dec-2019	Vanguard Investments Australia Ltd.	BUY	100.40	Ordinary	1,735	1,735
2-Jan-2020	Vanguard Investments Australia Ltd.	BUY	101.15	Ordinary	2,332	2,332
2-Jan-2020	Vanguard Investments Australia Ltd.	BUY	101.15	Ordinary	4,128	4,128
3-Jan-2020	Vanguard Investments Australia Ltd.	SELL	101.36	Ordinary	(25,029)	(25,029)
6-Jan-2020	Vanguard Investments Australia Ltd.	BUY	100.43	Ordinary	1,683	1,683
7-Jan-2020	Vanguard Investments Australia Ltd.	BUY	101.74	Ordinary	2,064	2,064
7-Jan-2020	Vanguard Investments Australia Ltd.	BUY	101.04	Ordinary	10,043	10,043
8-Jan-2020	Vanguard Investments Australia Ltd.	BUY	100.86	Ordinary	5,160	5,160
9-Jan-2020	Vanguard Investments Australia Ltd.	SELL	102.19	Ordinary	(2,752)	(2,752)
13-Jan-2020	Vanguard Investments Australia Ltd.	SELL	102.08	Ordinary	(1,520)	(1,520)
13-Jan-2020	Vanguard Investments Australia Ltd.	BUY	102.08	Ordinary	5,160	5,160
14-Jan-2020	Vanguard Investments Australia Ltd.	BUY	103.57	Ordinary	3,952	3,952
14-Jan-2020	Vanguard Investments Australia Ltd.	BUY	103.97	Ordinary	1,748	1,748
14-Jan-2020	Vanguard Investments Australia Ltd.	SELL	103.97	Ordinary	(1,748)	(1,748)
15-Jan-2020	Vanguard Investments Australia Ltd.	SELL	103.39	Ordinary	(2,791)	(2,791)
15-Jan-2020	Vanguard Investments Australia Ltd.	BUY	103.57	Ordinary	5,729	5,729
16-Jan-2020	Vanguard Investments Australia Ltd.	BUY	103.40	Ordinary	1,546	1,546
17-Jan-2020	Vanguard Investments Australia Ltd.	BUY	105.24	Ordinary	1,749	1,749
21-Jan-2020	Vanguard Investments Australia Ltd.	SELL	106.45	Ordinary	(4,802)	(4,802)
21-Jan-2020	Vanguard Investments Australia Ltd.	BUY	106.45	Ordinary	5,175	5,175
23-Jan-2020	Vanguard Investments Australia Ltd.	BUY	106.19	Ordinary	1,749	1,749
29-Jan-2020	Vanguard Investments Australia Ltd.	BUY	100.43	Ordinary	2,332	2,332
30-Jan-2020	Vanguard Investments Australia Ltd.	BUY	99.19	Ordinary	5,160	5,160
31-Jan-2020	Vanguard Investments Australia Ltd.	BUY	99.29	Ordinary	4,120	4,120
3-Feb-2020	Vanguard Investments Australia Ltd.	SELL	96.86	Ordinary	(1,131)	(1,131)
3-Feb-2020	Vanguard Investments Australia Ltd.	SELL	97.00	Ordinary	(3,580)	(3,580)
5-Feb-2020	Vanguard Investments Australia Ltd.	BUY	98.43	Ordinary	437	437
7-Feb-2020	Vanguard Investments Australia Ltd.	BUY	98.43	Ordinary	3,430	3,430
10-Feb-2020	Vanguard Investments Australia Ltd.	BUY	98.31	Ordinary	5,331	5,331
11-Feb-2020	Vanguard Investments Australia Ltd.	BUY	98.63	Ordinary	6,860	6,860
11-Feb-2020	Vanguard Investments Australia Ltd.	BUY	98.71	Ordinary	12,120	12,120
12-Feb-2020	Vanguard Investments Australia Ltd.	SELL	97.50	Ordinary	(6,328)	(6,328)
13-Feb-2020	Vanguard Investments Australia Ltd.	SELL	98.01	Ordinary	(2,915)	(2,915)
17-Feb-2020	Vanguard Investments Australia Ltd.	SELL	97.84	Ordinary	(6,180)	(6,180)
17-Feb-2020	Vanguard Investments Australia Ltd.	SELL	97.84	Ordinary	(1,311)	(1,311)
17-Feb-2020	Vanguard Investments Australia Ltd.	SELL	97.84	Ordinary	(2,999)	(2,999)
18-Feb-2020	Vanguard Investments Australia Ltd.	BUY	98.31	Ordinary	437	437
19-Feb-2020	Vanguard Investments Australia Ltd.	BUY	98.09	Ordinary	755	755
25-Feb-2020	Vanguard Investments Australia Ltd.	BUY	93.60	Ordinary	102	102
26-Feb-2020	Vanguard Investments Australia Ltd.	SELL	92.24	Ordinary	(1,874)	(1,874)
26-Feb-2020	Vanguard Investments Australia Ltd.	BUY	91.89	Ordinary	5,488	5,488
27-Feb-2020	Vanguard Investments Australia Ltd.	BUY	90.41	Ordinary	26,154	26,154
28-Feb-2020	Vanguard Investments Australia Ltd.	SELL	87.17	Ordinary	(593)	(593)
28-Feb-2020	Vanguard Investments Australia Ltd.	SELL	87.27	Ordinary	(3,337)	(3,337)
28-Feb-2020	Vanguard Investments Australia Ltd.	SELL	87.27	Ordinary	(4,640)	(4,640)
28-Feb-2020	Vanguard Investments Australia Ltd.	SELL	87.17	Ordinary	(91)	(91)
28-Feb-2020	Vanguard Investments Australia Ltd.	BUY	87.27	Ordinary	5,130	5,130
2-Mar-2020	Vanguard Investments Australia Ltd.	SELL	86.27	Ordinary	(3,621)	(3,621)
3-Mar-2020	Vanguard Investments Australia Ltd.	BUY	88.80	Ordinary	1,764	1,764
3-Mar-2020	Vanguard Investments Australia Ltd.	BUY	88.80	Ordinary	9,234	9,234
4-Mar-2020	Vanguard Investments Australia Ltd.	BUY	90.00	Ordinary	4,638	4,638
4-Mar-2020	Vanguard Investments Australia Ltd.	BUY	90.00	Ordinary	2,352	2,352
4-Mar-2020	Vanguard Investments Australia Ltd.	BUY	90.00	Ordinary	5,814	5,814

Date of change	Person whose relevant interest changed	Nature of Change(6)	Consideration given in relation to change(7)	Class	Number of securities affected	Person's votes affected
5-Mar-2020	Vanguard Investments Australia Ltd.	SELL	88.45	Ordinary	(1,836)	(1,836)
5-Mar-2020	Vanguard Investments Australia Ltd.	BUY	88.45	Ordinary	192	192
5-Mar-2020	Vanguard Investments Australia Ltd.	BUY	88.45	Ordinary	2,368	2,368
5-Mar-2020	Vanguard Investments Australia Ltd.	BUY	88.45	Ordinary	4,531	4,531
5-Mar-2020	Vanguard Investments Australia Ltd.	BUY	88.45	Ordinary	4,865	4,865
6-Mar-2020	Vanguard Investments Australia Ltd.	SELL	86.25	Ordinary	(3,860)	(3,860)
9-Mar-2020	Vanguard Investments Australia Ltd.	SELL	80.77	Ordinary	(2,017)	(2,017)
9-Mar-2020	Vanguard Investments Australia Ltd.	BUY	80.77	Ordinary	2,960	2,960
9-Mar-2020	Vanguard Investments Australia Ltd.	BUY	80.77	Ordinary	3,552	3,552
9-Mar-2020	Vanguard Investments Australia Ltd.	BUY	80.77	Ordinary	581	581
9-Mar-2020	Vanguard Investments Australia Ltd.	BUY	80.77	Ordinary	12,005	12,005
9-Mar-2020	Vanguard Investments Australia Ltd.	BUY	80.77	Ordinary	14,668	14,668
10-Mar-2020	Vanguard Investments Australia Ltd.	BUY	83.61	Ordinary	1,973	1,973
10-Mar-2020	Vanguard Investments Australia Ltd.	BUY	83.61	Ordinary	18,308	18,308
11-Mar-2020	Vanguard Investments Australia Ltd.	BUY	83.88	Ordinary	1,796	1,796
11-Mar-2020	Vanguard Investments Australia Ltd.	BUY	82.71	Ordinary	5,328	5,328
11-Mar-2020	Vanguard Investments Australia Ltd.	BUY	82.71	Ordinary	3,552	3,552
11-Mar-2020	Vanguard Investments Australia Ltd.	BUY	82.71	Ordinary	8,575	8,575
11-Mar-2020	Vanguard Investments Australia Ltd.	BUY	82.71	Ordinary	6,860	6,860
12-Mar-2020	Vanguard Investments Australia Ltd.	BUY	77.40	Ordinary	442	442
12-Mar-2020	Vanguard Investments Australia Ltd.	BUY	77.40	Ordinary	2,368	2,368
12-Mar-2020	Vanguard Investments Australia Ltd.	BUY	77.40	Ordinary	10,260	10,260
12-Mar-2020	Vanguard Investments Australia Ltd.	BUY	77.40	Ordinary	5,814	5,814
12-Mar-2020	Vanguard Investments Australia Ltd.	BUY	77.40	Ordinary	37,113	37,113

This is Annexure A of 24 pages referred to in Form 604, Notice of change of interest of substantial holder.

Signature: 

Name: Shawn Acker

Capacity: Compliance Manager

Date: 17 March 2020