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LAMPIRAN

Lampiran 1. Daftar Saham Indeks LQ45 Periode Juli 2016-Desember 2019

1. Daftar Saham Indeks LQ45 periode Agustus 2016-Februari 2017

No	Kode	Nama Saham	Keterangan
1	AALI	Astra Agro Lestari Tbk.	Tetap
2	ADHI	Adhi karya (Persero) Tbk.	Tetap
3	ADRO	Adaro Energy Tbk.	Tetap
4	AKRA	AKR Corporation Tbk.	Tetap
5	ANTM	Aneka Tambang Tbk.	Tetap
6	ASII	Astra Internasional Tbk.	Tetap
7	ASRI	Alam Sutera Realty Tbk.	Tetap
8	BBCA	Bank Central Asia Tbk.	Tetap
9	BBNI	Bank Negara Indonesia (Persero) Tbk.	Tetap
10	BBRI	Bank Rakyat Indonesia (Persero)Tbk.	Tetap
11	BBTN	Bank Tabungan Negara (Persero) Tbk.	Tetap
12	BMRI	Bank Mandiri (Persero) Tbk.	Tetap
13	BMTR	Global Mediacom Tbk.	Tetap
14	BSDE	Bumi Serpong Damai Tbk.	Tetap
15	CPIN	Charoen Pokphand Indonesia Tbk.	Tetap
16	ELSA	Elnusa Tbk.	Baru
17	GGRM	Gudang Garam Tbk.	Tetap
18	HMSP	H. M. Sempoerna Tbk.	Tetap
19	ICBP	Indofood CBP Sukses Makmur Tbk.	Tetap
20	INCO	Vale Indonesia Tbk.	Tetap
21	INDF	Indofoof Sukses Makmur Tbk.	Tetap
22	INTP	Indocement tunggal Prakarsa Tbk.	Tetap
23	JSMR	Jasa Marga (Pesero) Tbk.	Tetap
24	KLBF	Kalbe Farma Tbk.	Tetap
25	LPKR	Lippo Karawaci Tbk.	Tetap
26	LPPF	Matahari Department Store Tbk.	Tetap
27	LSIP	PP London Sumatra Indonesia Tbk.	Tetap
28	MNCN	Madia Nusantara Citra Tbk.	Tetap
29	MPPA	Matahari Putra Prima Tbk.	Tetap

30	MYRX	Hanson International Tbk.	Tetap
31	PGAS	Perusahaan Gas Negara (Persero) Tbk.	Tetap
32	PTBA	Tambang Batubara Bukit Asam (Persero) Tbk	Tetap
33	PTPP	PP (Persero) Tbk.	Tetap
34	PWON	Pakuwon Jati Tbk.	Tetap
35	SCMA	Surya Citra Media Tbk.	Tetap
36	SILO	Siloam International Hospitals Tbk.	Tetap
37	SMGR	Semen Indonesia (Persero) Tbk.	Tetap
38	SMRA	Summarecon Agung Tbk.	Tetap
39	SRIL	Sri Rejeki Isman Tbk.	Tetap
40	SSMS	Sawit Sumbermas Sarana Tbk.	Tetap
41	TLKM	Telekomunikasi Indonesia Tbk.	Tetap
42	UNTR	United Tractors Tbk.	Tetap
43	UNVR	Unilever Indonesia Tbk.	Tetap
44	WIKA	Wijaya Karya Tbk.	Tetap
45	WSKT	Waskita Karya (Persero) Tbk.	Tetap

1. Daftar Saham yang Indeks LQ45 Periode Februari – Juli 2017

No	Kode	Nama Saham	Keterangan
1	AALI	Astra Agro Lestari Tbk.	Tetap
2	ADHI	Adhi karya (Persero) Tbk.	Tetap
3	ADRO	Adaro Energy Tbk.	Tetap
4	AKRA	AKR Corporation Tbk.	Tetap
5	ANTM	Aneka Tambang Tbk.	Tetap
6	ASII	Astra Internasional Tbk.	Tetap
7	ASRI	Alam Sutera Realty Tbk.	Tetap
8	BBCA	Bank Central Asia Tbk.	Tetap
9	BBNI	Bank Negara Indonesia (Persero) Tbk.	Tetap
10	BBRI	Bank Rakyat Indonesia (Persero)Tbk.	Tetap
11	BBTN	Bank Tabungan Negara (Persero) Tbk.	Tetap
12	BMRI	Bank Mandiri (Persero) Tbk.	Tetap
13	BSDE	Bumi Serpong Damai Tbk.	Tetap
14	BUMI	Bumi Resources Tbk.	Baru
15	CPIN	Charoen Pokphand Indonesia Tbk.	Tetap
16	ELSA	Elnusa Tbk.	Tetap
17	EXCL	XI Axiata Tbk.	Baru
18	GGRM	Gudang Garam Tbk.	Tetap
19	HMSP	H. M. Sempoerna Tbk.	Tetap
20	ICBP	Indofood CBP Sukses Makmur Tbk.	Tetap
21	INCO	Vale Indonesia Tbk.	Tetap

22	INDF	Indofoof Sukses Makmur Tbk.	Tetap
23	INTP	Indocement tunggal Prakarsa Tbk.	Tetap
24	JSMR	Jasa Marga (Pesero) Tbk.	Tetap
25	KLBF	Kalbe Farma Tbk.	Tetap
26	LPKR	Lippo Karawaci Tbk.	Tetap
27	LPPF	Matahari Department Store Tbk.	Tetap
28	LSIP	PP London Sumatra Indonesia Tbk.	Tetap
29	MNCN	Madia Nusantara Citra Tbk.	Tetap
30	MYRX	Hanson International Tbk.	Tetap
31	PGAS	Perusahaan Gas Negara (Persero) Tbk.	Tetap
32	PPRO	PP Properti Tbk.	Baru
33	PTBA	Tambang Batubara Bukit Asam (Persero) Tbk	Tetap
34	PTPP	PP (Persero) Tbk.	Tetap
35	PWON	Pakuwon Jati Tbk.	Tetap
36	SCMA	Surya Citra Media Tbk.	Tetap
37	SMGR	Semen Indonesia (Persero) Tbk.	Tetap
38	SMRA	Summarecon Agung Tbk.	Tetap
39	SRIL	Sri Rejeki Isman Tbk.	Tetap
40	SSMS	Sawit Sumbermas Sarana Tbk.	Tetap
41	TLKM	Telekomunikasi Indonesia Tbk.	Tetap
42	UNTR	United Tractors Tbk.	Tetap
43	UNVR	Unilever Indonesia Tbk.	Tetap
44	WIKA	Wijaya Karya Tbk.	Tetap
45	WSKT	Waskita Karya (Persero) Tbk.	Tetap

2. Daftar Saham Indeks LQ45 Periode Agustus 2017- Januari 2018

No	Kode	Nama Saham	Keterangan
1	AALI	Astra Agro Lestari Tbk.	Tetap
2	ADHI	Adhi karya (Persero) Tbk.	Tetap
3	ADRO	Adaro Energy Tbk.	Tetap
4	AKRA	AKR Corporation Tbk.	Tetap
5	ANTM	Aneka Tambang Tbk.	Tetap
6	ASII	Astra Internasional Tbk.	Tetap
7	BBCA	Bank Central Asia Tbk.	Tetap
8	BBNI	Bank Negara Indonesia (Persero) Tbk.	Tetap
9	BBRI	Bank Rakyat Indonesia (Persero)Tbk.	Tetap
10	BBTN	Bank Tabungan Negara (Persero) Tbk.	Tetap
11	BJBR	Bank Pembangunan Daerah Jawa Barat dan Banten Tbk.	Baru
12	BMRI	Bank Mandiri (Persero) Tbk.	Tetap
13	BMTR	Global Medican Tbk.	Baru
14	BRPT	Barito Pacific Tbk.	Baru
15	BSDE	Bumi Serpong Damai Tbk.	Tetap
16	BUMI	Bumi Resource Tbk.	Tetap
17	EXCL	XI Axiata Tbk.	Tetap
18	GGRM	Gudang Garam Tbk.	Tetap
19	HMSP	H. M. Sempoerna Tbk.	Tetap
20	ICBP	Indofood CBP Sukses Makmur Tbk.	Tetap

21	INCO	Vale Indonesia Tbk.	Tetap
22	INDF	Indofoof Sukses Makmur Tbk.	Tetap
23	INTP	Indocement tunggal Prakarsa Tbk.	Tetap
24	JSMR	Jasa Marga (Pesero) Tbk.	Tetap
25	KLBF	Kalbe Farma Tbk.	Tetap
26	LPKR	Lippo Karawaci Tbk.	Tetap
27	LPPF	Matahari Department Store Tbk.	Tetap
28	LSIP	PP London Sumatra Indonesia Tbk.	Tetap
29	MNCN	Madia Nusantara Citra Tbk.	Tetap
30	MYRX	Hanson International Tbk.	Tetap
31	PGAS	Perusahaan Gas Negara (Persero) Tbk.	Tetap
32	PPRO	PP Properti Tbk.	Tetap
33	PTBA	Tambang Batubara Bukit Asam (Persero) Tbk.	Tetap
34	PTPP	PP (Persero) Tbk.	Tetap
35	PWON	Pakuwon Jati Tbk.	Tetap
36	SCMA	Surya Citra Media Tbk.	Tetap
37	SMGR	Semen Indonesia (Persero) Tbk.	Tetap
38	SMRA	Summarecon Agung Tbk.	Tetap
39	SRIL	Sri Rejeki Isman Tbk.	Tetap
40	SSMS	Sawit Sumbermas Sarana Tbk.	Tetap
41	TLKM	Telekomunikasi Indonesia Tbk.	Tetap
42	UNTR	United Tractors Tbk.	Tetap
43	UNVR	Unilever Indonesia Tbk.	Tetap
44	WIKA	Wijaya Karya Tbk.	Tetap
45	WSKT	Waskita Karya (Persero) Tbk.	Tetap

3. Daftar Saham Indeks LQ45 Periode Februari – Juli 2018

No	Kode	Nama Saham	Keterangan
1	ADHI	Adhi karya (Persero) Tbk.	Tetap
2	ADRO	Adaro Energy Tbk.	Tetap
3	AKRA	AKR Corporation Tbk.	Tetap
4	ANTM	Aneka Tambang Tbk.	Tetap
5	ASII	Astra Internasional Tbk.	Tetap
6	BBCA	Bank Central Asia Tbk.	Tetap
7	BBNI	Bank Negara Indonesia (Persero) Tbk.	Tetap
8	BBRI	Bank Rakyat Indonesia (Persero)Tbk.	Tetap
9	BBTN	Bank Tabungan Negara (Persero) Tbk.	Tetap
10	BJBR	Bank Pembangunan Daerah Jawa Barat dan Banten Tbk.	Tetap
11	BMRI	Bank Mandiri (Persero) Tbk.	Tetap
12	BMTR	Global Medican Tbk.	Tetap
13	BRPT	Barito Pacific Tbk.	Tetap
14	BSDE	Bumi Serpong Damai Tbk.	Tetap
15	BUMI	Bumi Resource Tbk.	Tetap
16	EXCL	XI Axiata Tbk.	Tetap
17	GGRM	Gudang Garam Tbk.	Tetap
18	HMSP	H. M. Sempoerna Tbk.	Tetap
19	ICBP	Indofood CBP Sukses Makmur Tbk.	Tetap
20	INCO	Vale Indonesia Tbk.	Tetap
21	INDF	Indofoof Sukses Makmur Tbk.	Tetap
22	INDY	Indika Energy Tbk.	Baru

23	INTP	Indocement tunggal Prakarsa Tbk.	Tetap
24	JSMR	Jasa Marga (Pesero) Tbk.	Tetap
25	KLBF	Kalbe Farma Tbk.	Tetap
26	LPKR	Lippo Karawaci Tbk.	Tetap
27	LPPF	Matahari Department Store Tbk.	Tetap
28	MNCN	Madia Nusantara Citra Tbk.	Tetap
29	MYRX	Hanson International Tbk.	Tetap
30	PGAS	Perusahaan Gas Negara (Pesero) Tbk.	Tetap
31	PTBA	Tambang Batubara Bukit Asam (Pesero) Tbk	Tetap
32	PTPP	PP (Pesero) Tbk.	Tetap
33	PWON	Pakuwon Jati Tbk.	Tetap
34	SCMA	Surya Citra Media Tbk.	Tetap
35	SMGR	Semen Indonesia (Pesero) Tbk.	Tetap
36	SRIL	Sri Rejeki Isman Tbk.	Tetap
37	SSMS	Sawit Sumbermas Sarana Tbk.	Tetap
38	TLKM	Telekomunikasi Indonesia Tbk.	Tetap
39	TPIA	Chandra Asri Pertochemical Tbk.	Baru
40	TRAM	Trada Alam Minera Tbk.	Baru
41	UNTR	United Tractors Tbk.	Tetap
42	UNVR	Unilever Indonesia Tbk.	Tetap
43	WIKA	Wijaya Karya Tbk.	Tetap
44	WSBP	Waskita Beton Precast Tbk.	Baru
45	WSKT	Waskita Karya (Pesero) Tbk.	Tetap

4. Daftar Saham Indeks LQ45 Periode Agustus 2018- Januari 2019

No	Kode	Nama Saham	Keterangan
1	ADHI	Adhi karya (Pesero) Tbk.	Tetap
2	ADRO	Adaro Energy Tbk.	Tetap
3	AKRA	AKR Corporation Tbk.	Tetap
4	ANTM	Aneka Tambang Tbk.	Tetap
5	ASII	Astra Internasional Tbk.	Tetap
6	BBCA	Bank Central Asia Tbk.	Tetap
7	BBNI	Bank Negara Indonesia (Pesero) Tbk.	Tetap
8	BBRI	Bank Rakyat Indonesia (Pesero)Tbk.	Tetap
9	BBTN	Bank Tabungan Negara (Pesero) Tbk.	Tetap
10	BJBR	Bank Pembangunan Daerah Jawa Barat dan Banten Tbk.	Tetap
11	BKSL	Sentul City Tbk.	Baru
12	BMRI	Bank Mandiri (Pesero) Tbk.	Tetap
13	BRPT	Barito Pacific Tbk.	Tetap
14	BSDE	Bumi Serpong Damai Tbk.	Tetap
15	ELSA	Elnusa Tbk.	Baru
16	EXCL	XI Axiata Tbk.	Tetap
17	GGRM	Gudang Garam Tbk.	Tetap
18	HMSP	H. M. Sempoerna Tbk.	Tetap
19	ICBP	Indofood CBP Sukses Makmur Tbk.	Tetap
20	INCO	Vale Indonesia Tbk.	Tetap
21	INDF	Indofoof Sukses Makmur Tbk.	Tetap
22	INDY	Indika Energy Tbk.	Tetap
23	INKP	Indah Kiat Pulp & Paper Tbk.	Baru
24	INTP	Indocement tunggal Prakarsa Tbk.	Tetap

25	ITMG	Indo Tambangraya Megah Tbk.	Baru
26	JSMR	Jasa Marga (Pesero) Tbk.	Tetap
27	KLBF	Kalbe Farma Tbk.	Tetap
28	LPKR	Lippo Karawaci Tbk.	Tetap
29	LPPF	Matahari Department Store Tbk.	Tetap
30	MEDC	Medco Energy International Tbk.	Baru
31	MNCN	Madia Nusantara Citra Tbk.	Tetap
32	PGAS	Perusahaan Gas Negara (Pesero) Tbk.	Tetap
33	PTBA	Tambang Batubara Bukit Asam (Pesero) Tbk	Tetap
34	PTPP	PP (Pesero) Tbk.	Tetap
35	SCMA	Surya Citra Media Tbk.	Tetap
36	SMGR	Semen Indonesia (Pesero) Tbk.	Tetap
37	SRIL	Sri Rejeki Isman Tbk.	Tetap
38	SSMS	Sawit Sumbermas Sarana Tbk.	Tetap
39	TLKM	Telekomunikasi Indonesia Tbk.	Tetap
40	TPIA	Chandra Asri Pertochemical Tbk.	Tetap
41	UNTR	United Tractors Tbk.	Tetap
42	UNVR	Unilever Indonesia Tbk.	Tetap
43	WIKA	Wijaya Karya Tbk.	Tetap
44	WSBP	Waskita Beton Precast Tbk.	Tetap
45	WSKT	Waskita Karya (Pesero) Tbk.	Tetap

5. Daftar Saham Indeks LQ45 Periode Februari – Juli 2019

No	Kode	Nama Saham	Keterangan
1	ADHI	Adhi karya (Pesero) Tbk.	Tetap
2	ADRO	Adaro Energy Tbk.	Tetap
3	AKRA	AKR Corporation Tbk.	Tetap
4	ANTM	Aneka Tambang Tbk.	Tetap
5	ASII	Astra Internasional Tbk.	Tetap
6	BBCA	Bank Central Asia Tbk.	Tetap
7	BBNI	Bank Negara Indonesia (Pesero) Tbk.	Tetap
8	BBRI	Bank Rakyat Indonesia (Pesero)Tbk.	Tetap
9	BBTN	Bank Tabungan Negara (Pesero) Tbk.	Tetap
10	BMRI	Bank Mandiri (Pesero) Tbk.	Tetap
11	BRPT	Barito Pacific Tbk.	Tetap
12	BSDE	Bumi Serpong Damai Tbk.	Tetap
13	CPIN	Charoen Pokphand Indonesia Tbk.	Baru
14	ELSA	Elnusa Tbk.	Tetap
15	ERAA	Erajaya Swasembada Tbk.	Baru
16	EXCL	XI Axiata Tbk.	Tetap
17	GGRM	Gudang Garam Tbk.	Tetap
18	HMSP	H. M. Sempoerna Tbk.	Tetap
19	ICBP	Indofood CBP Sukses Makmur Tbk.	Tetap
20	INCO	Vale Indonesia Tbk.	Tetap
21	INDF	Indofoof Sukses Makmur Tbk.	Tetap
22	INDY	Indika Energy Tbk.	Tetap
23	INKP	Indah Kiat Pulp & Paper Tbk.	Tetap
24	INTP	Indocement tunggal Prakarsa Tbk.	Tetap
25	ITMG	Indo Tambangraya Megah Tbk.	Tetap
26	JSMR	Jasa Marga (Pesero) Tbk.	Tetap

27	KLBF	Kalbe Farma Tbk.	Tetap
28	LPPF	Matahari Department Store Tbk.	Tetap
29	MEDC	Medco Energy International Tbk.	Tetap
30	MNCN	Madia Nusantara Citra Tbk.	Tetap
31	PGAS	Perusahaan Gas Negara (Persero) Tbk.	Tetap
32	PTBA	Tambang Batubara Bukit Asam (Persero) Tbk	Tetap
33	PTPP	PP (Persero) Tbk.	Tetap
34	PWON	Pakuwon Jati Tbk.	Baru
35	SCMA	Surya Citra Media Tbk.	Tetap
36	SMGR	Semen Indonesia (Persero) Tbk.	Tetap
37	SRIL	Sri Rejeki Isman Tbk.	Tetap
38	TKIM	Pabrik Kertas Tjiwi Kimia Tbk.	Baru
39	TLKM	Telekomunikasi Indonesia Tbk.	Tetap
40	TPIA	Chandra Asri Pertochemical Tbk.	Tetap
41	UNTR	United Tractors Tbk.	Tetap
42	UNVR	Unilever Indonesia Tbk.	Tetap
43	WIKA	Wijaya Karya Tbk.	Tetap
44	WSBP	Waskita Beton Precast Tbk.	Tetap
45	WSKT	Waskita Karya (Persero) Tbk.	Tetap

6. Daftar Saham Indeks LQ45 Periode Agustus 2019-Januari 2020

No	Kode	Nama Saham	Keterangan
1	ADRO	Adaro Energy Tbk.	Tetap
2	AKRA	AKR Corporation Tbk.	Tetap
3	ANTM	Aneka Tambang Tbk.	Tetap
4	ASII	Astra Internasional Tbk.	Tetap
5	BBCA	Bank Central Asia Tbk.	Tetap
6	BBNI	Bank Negara Indonesia (Persero) Tbk.	Tetap
7	BBRI	Bank Rakyat Indonesia (Persero)Tbk.	Tetap
8	BBTN	Bank Tabungan Negara (Persero) Tbk.	Tetap
9	BMRI	Bank Mandiri (Persero) Tbk.	Tetap
10	BRPT	Barito Pacific Tbk.	Tetap
11	BSDE	Bumi Serpong Damai Tbk.	Tetap
12	BTPS	Bank Tabungan Pensiunan Nasional Syariah Tbk.	Baru
13	CPIN	Charoen Pokphand Indonesia Tbk.	Tetap
14	CTRA	Ciputra Development Tbk.	Baru
15	ERAA	Erajaya Swasembada Tbk.	Tetap
16	EXCL	XI Axiata Tbk.	Tetap
17	GGRM	Gudang Garam Tbk.	Tetap
18	HMSP	H. M. Sempoerna Tbk.	Tetap
19	ICBP	Indofood CBP Sukses Makmur Tbk.	Tetap
20	INCO	Vale Indonesia Tbk.	Tetap
21	INDF	Indofoof Sukses Makmur Tbk.	Tetap
22	INDY	Indika Energy Tbk.	Tetap
23	INKP	Indah Kiat Pulp & Paper Tbk.	Tetap
24	INTP	Indocement tunggal Prakarsa Tbk.	Tetap
25	ITMG	Indo Tambangraya Megah Tbk.	Tetap
26	JPFA	Japfa commed Indoneesia Tbk.	Baru
27	JSMR	Jasa Marga (Pesero) Tbk.	Tetap
28	KLBF	Kalbe Farma Tbk.	Tetap

29	LPPF	Matahari Department Store Tbk.	Tetap
30	MEDC	Medco Energy International Tbk.	Tetap
31	MNCN	Madia Nusantara Citra Tbk.	Tetap
32	PGAS	Perusahaan Gas Negara (Persero) Tbk.	Tetap
33	PTBA	Tambang Batubara Bukit Asam (Persero) Tbk	Tetap
34	PTPP	PP (Persero) Tbk.	Tetap
35	PWON	Pakuwon Jati Tbk.	Tetap
36	SCMA	Surya Citra Media Tbk.	Tetap
37	SMGR	Semen Indonesia (Persero) Tbk.	Tetap
38	SRIL	Sri Rejeki Isman Tbk.	Tetap
39	TKIM	Pabrik Kertas Tjiwi Kimia Tbk.	Tetap
40	TLKM	Telekomunikasi Indonesia Tbk.	Tetap
41	TPIA	Chandra Asri Pertochemical Tbk.	Tetap
42	UNTR	United Tractors Tbk.	Tetap
43	UNVR	Unilever Indonesia Tbk.	Tetap
44	WIKA	Wijaya Karya Tbk.	Tetap
45	WSKT	Waskita Karya (Persero) Tbk.	Tetap

Lampiran 2. Daftar Saham JII Periode Juli 2016-Desember 2019

1. Daftar Saham Indeks JII Periode Juni-November 2016

No	Kode	Nama Saham	Keterangan
1	AALI	Astra Agro Lestari Tbk.	Tetap
2	ADRO	Adaro Energy Tbk.	Tetap
3	AKRA	AKR Corporation Tbk.	Tetap
4	ASII	Astra Internasional Tbk.	Tetap
5	ASRI	Alam Sutera Realty Tbk.	Tetap
6	BSDE	Bumi Serpong Damai Tbk.	Tetap
7	ICBP	Indofood CBP Sukses Makmur Tbk.	Tetap
8	INCO	Vale Indonesia Tbk.	Tetap
9	INDF	Indofood Sukses Makmur Tbk.	Tetap
10	INTP	Indocement tunggal Prakarsa Tbk.	Tetap
11	JSMR	Jasa Marga (Pesero) Tbk.	Tetap
12	KLBF	Kalbe Farma Tbk.	Tetap
13	LPKR	Lippo Karawaci Tbk.	Tetap
14	LPPF	Matahari Department Store Tbk.	Tetap
15	LSIP	PP London Sumatra Indonesia Tbk.	Tetap
16	MIKA	Mitra Keluarga Karyasehat Tbk.	Tetap
17	PGAS	Perusahaan Gas Negara (Pesero) Tbk.	Tetap
18	PTBA	Tambang Batubara Bukit Asam (Pesero) Tbk	Baru
19	PTPP	PP (Pesero) Tbk.	Tetap
20	PWON	Pakuwon Jati Tbk.	Tetap
21	SCMA	Surya Citra Media Tbk.	Baru
22	SILO	Siloam International Hospitals Tbk.	Tetap
23	SMGR	Semen Indonesia (Pesero) Tbk.	Tetap
24	SMRA	Summarecon Agung Tbk.	Tetap
25	SSMS	Sawit Sumbermas Sarana Tbk.	Tetap
26	TLKM	Telekomunikasi Indonesia Tbk.	Tetap
27	UNTR	United Tractors Tbk.	Tetap
28	UNVR	Unilever Indonesia Tbk.	Tetap
29	WIKA	Wijaya Karya Tbk.	Tetap
30	WSKT	Waskita Karya (Pesero) Tbk.	Tetap

2. Daftar Saham Indeks JII Periode Desember 2016-Mei 2017

No	Kode	Nama Saham	Keterangan
1	AALI	Astra Agro Lestari Tbk.	Tetap
2	ADHI	Adhi karya (Pesero) Tbk.	Baru
3	ADRO	Adaro Energy Tbk.	Tetap
4	AKRA	AKR Corporation Tbk.	Tetap
5	ANTM	Aneka Tambang Tbk.	Baru
6	ASII	Astra Internasional Tbk.	Tetap
7	BSDE	Bumi Serpong Damai Tbk	Tetap
8	ICBP	Indofood CBP Sukses Makmur Tbk.	Tetap
9	INCO	Vale Indonesia Tbk.	Tetap
10	INDF	Indofood Sukses Makmur Tbk.	Tetap
11	INTP	Indocement tunggal Prakarsa Tbk.	Tetap
12	KLBF	Kalbe Farma Tbk.	Tetap

13	LPKR	Lippo Karawaci Tbk.	Tetap
14	LPPF	Matahari Department Store Tbk.	Tetap
15	LSIP	PP London Sumatra Indonesia Tbk.	Tetap
16	MIKA	Mitra Keluarga Karyasehat Tbk.	Tetap
17	MYRX	Hanson International Tbk.	Baru
18	PGAS	Perusahaan Gas Negara (Persero) Tbk.	Tetap
19	PTBA	Tambang Batubara Bukit Asam Tbk.	Tetap
20	PTPP	PP (Persero) Tbk.	Tetap
21	PWON	Pakuwon Jati Tbk.	Tetap
22	SILO	Siloam Internasional Hospital Tbk.	Tetap
23	SMGR	Semen Indonesia (Persero) Tbk.	Tetap
24	SMRA	Summarecon Agung Tbk.	Tetap
25	SSMS	Sawit Sumbermas Sarana Tbk.	Tetap
26	TLKM	Telekomunikasi Indonesia Tbk.	Tetap
27	UNTR	United Tractors Tbk.	Tetap
28	UNVR	Unilever Indonesia Tbk.	Tetap
29	WIKA	Wijaya Karya Tbk.	Tetap
30	WSKT	Waskita Karya (Persero) Tbk.	Tetap

3. Daftar Saham Indeks JII Periode Juni s.d. November 2017

No	Kode	Nama Saham	Keterangan
1	AALI	Astra Agro Lestari Tbk.	Tetap
2	ADRO	Adaro Energy Tbk.	Tetap
3	AKRA	AKR Corporation Tbk.	Tetap
4	ANTM	Aneka Tambang Tbk.	Tetap
5	ASII	Astra Internasional Tbk.	Tetap
6	BSDE	Bumi Serpong Damai Tbk.	Tetap
7	CTRA	Ciputra Development Tbk.	Baru
8	EXCL	XI Axiata Tbk.	Baru
9	ICBP	Indofood CBP Sukses Makmur Tbk.	Tetap
10	INCO	Vale Indonesia Tbk.	Tetap
11	INDF	Indofood Sukses Makmur Tbk.	Tetap
12	KLBF	Kalbe Farma Tbk.	Tetap
13	LPKR	Lippo Karawaci Tbk.	Tetap
14	LPPF	Matahari Department Store Tbk.	Tetap
15	LSIP	PP London Sumatra Indonesia Tbk.	Tetap
16	MYRX	Hanson International Tbk.	Tetap
17	PGAS	Perusahaan Gas Negara (Persero) Tbk.	Tetap
18	PPRO	PP Properti Tbk.	Baru
19	PTBA	Tambang Batubara Bukit Asam (Persero) Tbk.	Tetap
20	PTPP	PP (Persero) Tbk.	Tetap
21	PWON	Pakuwon Jati Tbk.	Tetap
22	SMGR	Semen Indonesia (Persero) Tbk.	Tetap
23	SMRA	Summarecon Agung Tbk.	Tetap
24	SSMS	Sawit Sumbermas Sarana Tbk.	Tetap
25	TLKM	Telekomunikasi Indonesia Tbk.	Tetap
26	TPIA	Chandra Asri Petrochemical	Baru
27	UNTR	United Tractors Tbk.	Tetap
28	UNVR	Unilever Indonesia Tbk.	Tetap
29	WIKA	Wijaya Karya Tbk.	Tetap

30	WSKT	Waskita Karya (Persero) Tbk.	Tetap
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4. Daftar Saham Indeks JII Periode Desember 2017-Mei 2018

No	Kode	Nama Saham	Keterangan
1	ADRO	Adaro Energy Tbk.	Tetap
2	AKRA	AKR Corporation Tbk.	Tetap
3	ANTM	Aneka Tambang Tbk.	Tetap
4	ASII	Astra Internasional Tbk.	Tetap
5	BRPT	Barito Pacific Tbk.	Baru
6	BSDE	Bumi Serpong Damai Tbk.	Tetap
7	CTRA	Ciputra Development Tbk.	Baru
8	EXCL	XI Axiata Tbk.	Tetap
9	ICBP	Indofood CBP Sukses Makmur Tbk.	Tetap
10	INCO	Vale Indonesia Tbk.	Tetap
11	INDF	Indofood Sukses Makmur Tbk.	Tetap
12	KLBF	Kalbe Farma Tbk.	Tetap
13	LPKR	Lippo Karawaci Tbk.	Tetap
14	LPPF	Matahari Department Store Tbk.	Tetap
15	LSIP	PP London Sumatra Indonesia Tbk.	Tetap
16	MYRX	Hanson International Tbk.	Tetap
17	PGAS	Perusahaan Gas Negara (Persero) Tbk.	Tetap
18	PTBA	Tambang Batubara Bukit Asam (Persero) Tbk	Tetap
19	PTPP	PP (Persero) Tbk.	Tetap
20	PWON	Pakuwon Jati Tbk.	Tetap
21	SCMA	Surya Citra Media Tbk.	Baru
22	SMGR	Semen Indonesia (Persero) Tbk.	Tetap
23	SMRA	Summarecon Agung Tbk.	Tetap
24	TLKM	Telekomunikasi Indonesia Tbk.	Tetap
25	TPIA	Chandra Asri Pertochemical Tbk.	Baru
26	UNTR	United Tractors Tbk.	Tetap
27	UNVR	Unilever Indonesia Tbk.	Tetap
28	WIKA	Wijaya Karya Tbk.	Tetap
29	WSBP	Waskita Beton Precast Tbk.	Baru
30	WSKT	Waskita Karya (Persero) Tbk.	Tetap

5. Daftar Saham Indeks JII Periode Juni- November 2018

No	Kode	Nama Saham	Keterangan
1	ADRO	Adaro Energy Tbk.	Tetap
2	AKRA	AKR Corporation Tbk.	Tetap
3	ANTM	Aneka Tambang Tbk.	Tetap
4	ASII	Astra Internasional Tbk.	Tetap
5	BRPT	Barito Pacific Tbk.	Tetap
6	BSDE	Bumi Serpong Damai Tbk.	Tetap
7	CTRA	Ciputra Development Tbk.	Baru
8	EXCL	XI Axiata Tbk.	Tetap
9	ICBP	Indofood CBP Sukses Makmur Tbk.	Tetap
10	INCO	Vale Indonesia Tbk.	Tetap
11	INDF	Indofood Sukses Makmur Tbk.	Tetap
12	INDY	Indika Energy Tbk.	Baru
13	INTP	Indocement tunggal Prakarsa Tbk.	Baru
14	ITMG	Indo Tambangraya Megah Tbk.	Baru
15	KLBF	Kalbe Farma Tbk.	Tetap
16	LPKR	Lippo Karawaci Tbk.	Tetap

17	LPPF	Matahari Department Store Tbk.	Tetap
18	PGAS	Perusahaan Gas Negara (Persero) Tbk.	Tetap
19	PTBA	Tambang Batubara Bukit Asam (Persero) Tbk	Tetap
20	PTPP	PP (Persero) Tbk.	Tetap
21	SCMA	Surya Citra Media Tbk.	Tetap
22	SMGR	Semen Indonesia (Persero) Tbk.	Tetap
23	SMRA	Summarecon Agung Tbk.	Tetap
24	TLKM	Telekomunikasi Indonesia Tbk.	Tetap
25	TPIA	Chandra Asri Pertochemical Tbk.	Tetap
26	UNTR	United Tractors Tbk.	Tetap
27	UNVR	Unilever Indonesia Tbk.	Tetap
28	WIKA	Wijaya Karya Tbk.	Tetap
29	WSBP	Waskita Beton Precast Tbk.	Tetap
30	WSKT	Waskita Karya (Persero) Tbk.	Tetap

6. Daftar Saham Indeks JII Periode Desember 2018 -Mei 2019

No	Kode	Nama Saham	Keterangan
1	ADRO	Adaro Energy Tbk.	Tetap
2	AKRA	AKR Corporation Tbk.	Tetap
3	ANTM	Aneka Tambang Tbk.	Tetap
4	ASII	Astra Internasional Tbk.	Tetap
5	BRPT	Barito Pacific Tbk.	Tetap
6	BSDE	Bumi Serpong Damai Tbk.	Tetap
7	CPIN	Charoen Pokphand Indonesia Tbk.	Baru
8	CTRA	Ciputra Development Tbk.	Tetap
9	EXCL	XI Axiata Tbk.	Tetap
10	ICBP	Indofood CBP Sukses Makmur Tbk.	Tetap
11	INCO	Vale Indonesia Tbk.	Tetap
12	INDF	Indofood Sukses Makmur Tbk.	Tetap
13	INDY	Indika Energy Tbk.	Tetap
14	INTP	Indocement tunggal Prakarsa Tbk.	Tetap
15	ITMG	Indo Tambangraya Megah Tbk.	Tetap
16	JSMR	Jasa Marga (Pesero) Tbk.	Baru
17	KLBF	Kalbe Farma Tbk.	Tetap
18	LPPF	Matahari Department Store Tbk.	Tetap
19	PGAS	Perusahaan Gas Negara (Persero) Tbk.	Tetap
20	PTBA	Tambang Batubara Bukit Asam (Persero) Tbk	Tetap
21	PTPP	PP (Persero) Tbk.	Tetap
22	SCMA	Surya Citra Media Tbk.	Tetap
23	SMGR	Semen Indonesia (Persero) Tbk.	Tetap
24	SMRA	Summarecon Agung Tbk.	
25	TLKM	Telekomunikasi Indonesia Tbk.	Tetap
26	TPIA	Chandra Asri Pertochemical Tbk.	Tetap
27	UNTR	United Tractors Tbk.	Tetap
28	UNVR	Unilever Indonesia Tbk.	Tetap
29	WIKA	Wijaya Karya Tbk.	Tetap
30	WSBP	Waskita Beton Precast Tbk.	Tetap

7. Daftar Saham Indeks JII Periode Juni- November 2019

No	Kode	Nama Saham	Keterangan
1	ADRO	Adaro Energy Tbk.	Tetap
2	AKRA	AKR Corporation Tbk.	Tetap
3	ANTM	Aneka Tambang Tbk.	Tetap

4	ASII	Astra Internasional Tbk.	Tetap
5	BRPT	Barito Pacific Tbk.	Tetap
6	BSDE	Bumi Serpong Damai Tbk.	Tetap
7	BTPS	Bank Tabungan Pensiunan Nasional Syariah Tbk.	Baru
8	CPIN	Charoen Pokphand Indonesia Tbk.	Tetap
9	CTRA	Ciputra Development Tbk.	Baru
10	ERAA	Erajaya Swasembada Tbk.	Baru
11	EXCL	XI Axiata Tbk.	Tetap
12	ICBP	Indofood CBP Sukses Makmur Tbk.	Tetap
13	INCO	Vale Indonesia Tbk.	Tetap
14	INDF	Indofood Sukses Makmur Tbk.	Tetap
15	INDY	Indika Energy Tbk.	Tetap
16	INTP	Indocement tunggal Prakarsa Tbk.	Tetap
17	ITMG	Indo Tambangraya Megah Tbk.	Tetap
18	JPFA	Japfa commed Indoneesia Tbk.	Baru
19	JSMR	Jasa Marga (Pesero) Tbk.	Tetap
20	KLBF	Kalbe Farma Tbk.	Tetap
21	LPPF	Matahari Department Store Tbk.	Tetap
22	PTBA	Tambang Batubara Bukit Asam (Persero) Tbk	Tetap
23	PTPP	PP (Persero) Tbk.	Tetap
24	SCMA	Surya Citra Media Tbk.	Tetap
25	SMGR	Semen Indonesia (Persero) Tbk.	Tetap
26	TLKM	Telekomunikasi Indonesia Tbk.	Tetap
27	UNTR	United Tractors Tbk.	Tetap
28	UNVR	Unilever Indonesia Tbk.	Tetap
29	WIKA	Wijaya Karya Tbk.	Tetap
30	WSBP	Waskita Beton Precast Tbk.	Baru

8. Daftar Saham yang Termasuk dalam Perhitungan Indeks JII Periode Desember 2019 s.d. Mei 2020

No	Kode	Nama Saham	Keterangan
1	ADRO	Adaro Energy Tbk.	Tetap
2	AKRA	AKR Corporation Tbk.	Tetap
3	ANTM	Aneka Tambang Tbk.	Tetap
4	ASII	Astra Internasional Tbk.	Tetap
5	BRPT	Barito Pacific Tbk.	Tetap
6	BSDE	Bumi Serpong Damai Tbk.	Tetap
7	BTPS	Bank Tabungan Pensiunan Nasional Syariah Tbk.	Tetap
8	CPIN	Charoen Pokphand Indonesia Tbk.	Tetap
9	CTRA	Ciputra Development Tbk.	Baru
10	ERAA	Erajaya Swasembada Tbk.	Tetap
11	EXCL	XI Axiata Tbk.	Tetap
12	ICBP	Indofood CBP Sukses Makmur Tbk.	Tetap
13	INCO	Vale Indonesia Tbk.	Tetap
14	INDF	Indofood Sukses Makmur Tbk.	Tetap
15	INTP	Indocement tunggal Prakarsa Tbk.	Tetap
16	ITMG	Indo Tambangraya Megah Tbk.	Tetap
17	JPFA	Japfa commed Indoneesia Tbk.	Tetap
18	JSMR	Jasa Marga (Pesero) Tbk.	Tetap
19	KLBF	Kalbe Farma Tbk.	Tetap
20	LPPF	Matahari Department Store Tbk.	Tetap

21	MNCN	Media Nusantara Citra Tbk.	Baru
22	PGAS	Perusahaan Gas Negara Tbk.	Baru
23	PTBA	Tambang Batubara Bukit Asam (Persero) Tbk	Tetap
24	PTPP	PP (Persero) Tbk.	Tetap
25	SCMA	Surya Citra Media Tbk.	Tetap
26	TLKM	Telekomunikasi Indonesia Tbk.	Tetap
27	TPIA	Chandra Asri Petrochemical Tbk.	Baru
28	UNTR	United Tractors Tbk.	Tetap
29	UNVR	Unilever Indonesia Tbk.	Tetap
30	WIKA	Wijaya Karya Tbk.	Tetap

Lampiran 3. Daftar *Return* Saham Konvensional dan Saham Syariah Terpilih

Periode Juli 2016-Desember 2019

Tanggal	Harga Saham Konvensional					Harga Saham Syariah				
	BBCA	BBRI	BMRI	BBNI	BBTN	INCO	ADRO	PTBA	ICBP	UNTR
7/1/2016	13,225	2,150	4,700	5,150	1,690	1,815	885	1,580	8,475	14,800
7/11/2016	13,500	2,270	4,850	5,300	1,720	1,950	925	1,655	8712.5	15,075
7/12/2016	13,750	2,300	5,088	5,425	1,810	2,210	970	1,725	8,700	15,500
7/13/2016	13,800	2,310	4,950	5,400	1,820	2,410	1,025	1,930	8,675	16,150
7/14/2016	13,850	2,275	4,800	5,300	1,820	2,310	1,040	1,865	8,500	15,600
7/15/2016	14,000	2,300	4,838	5,450	1,835	2,320	995	1,925	8,500	15,500
7/18/2016	13,950	2,295	4,838	5,475	1,800	2,350	1,030	2,000	8462.5	16,000
7/19/2016	14,300	2,360	5,050	5,600	1,805	2,470	1,025	1,960	8562.5	16,200
7/20/2016	14,450	2,375	5,213	5,650	1,825	2,490	1,035	2,000	8,725	16,000
7/21/2016	14,550	2,300	5,063	5,575	1,850	2,500	1,055	1,945	8,600	15,900
7/22/2016	14,525	2,285	4,963	5,300	1,855	2,580	1,050	1,935	8687.5	15,850
7/25/2016	14,500	2,270	4,963	5,175	1,885	2,540	1,070	2,010	8,775	16,000
7/26/2016	14,350	2,310	4,925	5,225	1,950	2,390	1,060	1,975	8,950	15,700
7/27/2016	14,550	2,320	5,050	5,375	1,985	2,430	1,045	1,980	9,000	15,400
7/28/2016	14,425	2,280	5,050	5,400	2,000	2,540	1,060	2,045	8,850	15,625
7/29/2016	14,450	2,305	5,050	5,350	1,975	2,560	1,040	1,970	8,600	15,750
8/1/2016	14,875	2,345	5,275	5,525	2,050	2,610	1,040	1,965	8,925	16,150
8/2/2016	15,000	2,350	5,325	5,475	2,030	2,630	1,105	2,000	8,800	16,250
8/3/2016	14,975	2,330	5,213	5,425	1,970	2,530	1,140	2,060	8,800	16,300
8/4/2016	15,000	2,360	5,275	5,450	1,920	2,500	1,110	2,135	8,850	17,600
8/5/2016	15,100	2,395	5,700	5,650	1,895	2,620	1,145	2,070	8,925	17,300
8/8/2016	15,100	2,430	5,825	5,850	1,955	2,670	1,150	2,050	8,825	17,425
8/9/2016	15,000	2,400	5,900	5,800	1,955	2,630	1,200	2,075	8,750	17,150
8/10/2016	14,950	2,400	5,775	5,700	1,945	2,570	1,155	2,030	8,750	17,900
8/11/2016	14,950	2,380	5,588	5,625	1,905	2,560	1,085	2,000	8,725	18,050
8/12/2016	15,000	2,390	5,538	5,625	1,890	2,620	1,135	2,000	8,600	17,700
8/15/2016	15,050	2,400	5,588	5,650	1,885	2,580	1,120	1,970	8,650	17,900
8/16/2016	15,125	2,420	5,663	5,800	1,920	2,590	1,145	2,015	8,725	17,750
8/18/2016	15,200	2,420	5,713	5,875	1,925	2,830	1,170	2,075	9,200	17,500
8/19/2016	15,300	2,400	5,725	5,850	1,940	2,890	1,105	2,015	9,025	16,800
8/22/2016	15,300	2,370	5,700	5,775	1,935	2,860	1,115	1,985	9,250	17,275
8/23/2016	15,275	2,310	5,650	5,800	1,955	2,740	1,080	1,980	9,350	17,500

8/24/2016	15,300	2,330	5,675	5,825	1,985	2,810	1,060	1,960	9,300	17,775
8/25/2016	15,250	2,370	5,700	5,850	2,020	2,700	1,100	1,955	9,625	18,000
8/26/2016	15,200	2,350	5,700	5,825	1,990	2,700	1,080	1,935	9,775	17,700
8/29/2016	15,025	2,300	5,588	5,800	1,980	2,710	1,065	1,870	9,500	17,600
8/30/2016	15,000	2,305	5,638	5,825	1,945	2,680	1,135	1,895	9,700	18,700
8/31/2016	15,050	2,330	5,613	5,875	2,010	2,640	1,150	1,985	9,975	18,750
9/1/2016	15,000	2,340	5,538	5,850	2,010	2,670	1,185	1,960	10,000	18,800
9/2/2016	15,000	2,325	5,588	5,825	1,985	2,660	1,170	1,940	9,700	19,100
9/5/2016	15,000	2,360	5,588	5,825	1,965	2,810	1,220	2,000	9,450	18,525
9/6/2016	15,025	2,375	5,588	5,850	1,990	2,880	1,225	2,020	9,475	19,250
9/7/2016	15,200	2,395	5,638	5,825	2,010	2,920	1,245	2,075	9,700	18,700
9/8/2016	15,175	2,395	5,600	5,800	2,000	2,900	1,270	2,020	9,800	18,000
9/9/2016	15,050	2,350	5,425	5,675	2,000	2,820	1,270	2,025	9,425	17,500
9/13/2016	15,025	2,335	5,338	5,625	2,000	2,760	1,165	1,905	9,425	17,450
9/14/2016	14,975	2,340	5,300	5,500	1,920	2,620	1,120	1,850	9,025	16,825
9/15/2016	15,100	2,395	5,488	5,525	1,925	2,660	1,165	1,930	9,450	17,500
9/16/2016	15,100	2,385	5,538	5,475	1,950	2,620	1,165	1,920	9,475	17,850
9/19/2016	15,250	2,370	5,613	5,300	1,955	2,660	1,185	1,935	9,700	17,825
9/20/2016	15,100	2,400	5,700	5,450	1,900	2,690	1,180	1,895	9,600	17,675
9/21/2016	15,175	2,400	5,688	5,475	1,990	2,680	1,170	1,955	9,600	17,600
9/22/2016	15,350	2,415	5,825	5,575	2,000	2,840	1,185	1,970	9,475	17,975
9/23/2016	15,475	2,415	5,750	5,525	1,995	2,840	1,210	2,005	9,500	17,925
9/26/2016	15,350	2,405	5,825	5,525	1,960	2,710	1,200	1,970	9,350	17,200
9/27/2016	16,000	2,420	5,875	5,600	2,010	2,970	1,210	1,960	9,300	18,100
9/28/2016	15,425	2,420	5,650	5,625	1,975	2,970	1,200	1,940	9,625	18,250
9/29/2016	15,725	2,445	5,713	5,600	1,965	2,950	1,280	2,005	9,725	18,500
9/30/2016	15,700	2,440	5,600	5,550	1,920	2,950	1,205	1,925	9,475	17,700
10/3/2016	15,975	2,455	5,638	5,625	1,930	3,130	1,300	1,990	9,750	18,350
10/4/2016	15,950	2,455	5,600	5,575	1,980	2,960	1,305	2,055	9,750	18,450
10/5/2016	15,800	2,460	5,500	5,525	1,930	2,750	1,290	2,050	9,725	18,700
10/6/2016	15,775	2,480	5,475	5,400	1,950	2,700	1,360	2,130	9,725	19,300
10/7/2016	15,800	2,395	5,450	5,300	1,925	2,670	1,375	2,170	9,575	19,450
10/10/2016	15,700	2,370	5,450	5,300	1,920	2,670	1,385	2,240	9,625	18,850
10/11/2016	15,800	2,390	5,425	5,200	1,915	2,720	1,400	2,335	9,800	19,450
10/12/2016	15,600	2,400	5,500	5,175	1,915	2,760	1,405	2,325	9,800	19,100
10/13/2016	15,450	2,395	5,525	5,375	1,900	2,760	1,405	2,320	9,475	19,400
10/14/2016	15,800	2,445	5,675	5,475	1,950	2,740	1,425	2,340	9,800	19,200

10/17/2016	15,900	2,430	5,688	5,500	1,940	2,750	1,460	2,485	9,600	19,800
10/18/2016	16,050	2,440	5,700	5,400	1,920	2,890	1,440	2,440	9,525	19,800
10/19/2016	15,975	2,430	5,688	5,400	1,920	2,850	1,530	2,505	9,450	20,100
10/20/2016	15,750	2,425	5,650	5,450	1,920	2,870	1,510	2,500	9,475	20,050
10/21/2016	15,800	2,445	5,613	5,425	1,910	2,700	1,500	2,400	9,575	20,200
10/24/2016	15,675	2,440	5,600	5,450	1,940	2,670	1,525	2,435	9,500	20,325
10/25/2016	15,500	2,430	5,588	5,475	1,940	2,680	1,525	2,455	9,600	20,750
10/26/2016	15,500	2,415	5,538	5,450	1,935	2,640	1,555	2,535	9,525	21,150
10/27/2016	15,525	2,440	5,663	5,525	1,940	2,680	1,550	2,500	9,575	21,550
10/28/2016	15,600	2,440	5,688	5,525	1,920	2,630	1,580	2,405	9,525	21,100
10/31/2016	15,525	2,440	5,738	5,575	1,910	2,720	1,585	2,380	9,400	21,625
11/1/2016	15,450	2,445	5,713	5,525	1,910	2,680	1,640	2,535	9,200	22,275
11/2/2016	15,475	2,480	5,750	5,525	1,890	2,670	1,720	2,535	9,150	22,275
11/3/2016	15,425	2,465	5,575	5,475	1,860	2,590	1,640	2,360	8,800	21,850
11/4/2016	15,500	2,480	5,550	5,600	1,870	2,640	1,670	2,495	9,100	21,850
11/7/2016	15,400	2,490	5,688	5,575	1,875	2,850	1,685	2,610	9,275	22,275
11/8/2016	15,500	2,575	5,788	5,725	1,920	3,000	1,630	2,575	9,575	22,950
11/9/2016	15,300	2,520	5,675	5,575	1,880	3,020	1,570	2,575	9,450	22,725
11/10/2016	15,225	2,540	5,713	5,575	1,885	3,300	1,650	2,680	9,425	23,275
11/11/2016	14,675	2,395	5,425	5,150	1,760	3,500	1,660	2,720	8,775	22,850
11/14/2016	14,375	2,225	5,163	5,125	1,660	3,300	1,605	2,565	8,550	21,800
11/15/2016	14,550	2,205	5,275	5,000	1,625	3,090	1,465	2,295	8,650	20,700
11/16/2016	14,725	2,300	5,413	5,225	1,685	3,250	1,535	2,505	8,825	22,900
11/17/2016	14,750	2,300	5,450	5,225	1,680	3,200	1,515	2,385	9,100	21,900
11/18/2016	14,725	2,300	5,463	5,225	1,660	3,110	1,500	2,225	9,100	21,300
11/21/2016	14,725	2,290	5,350	5,200	1,655	3,100	1,530	2,225	8,775	20,775
11/22/2016	14,650	2,295	5,463	5,250	1,700	3,210	1,620	2,310	8,725	21,425
11/23/2016	14,700	2,300	5,450	5,125	1,720	3,370	1,630	2,380	8,775	21,900
11/24/2016	14,550	2,260	5,050	5,000	1,650	3,400	1,645	2,285	8,550	21,475
11/25/2016	14,525	2,185	5,075	5,025	1,635	3,370	1,640	2,360	8,275	21,900
11/28/2016	14,375	2,095	5,075	5,075	1,600	3,500	1,680	2,310	8,350	21,500
11/29/2016	14,350	2,110	5,163	5,100	1,620	3,500	1,630	2,310	8,425	21,775
11/30/2016	14,300	2,180	5,250	5,175	1,650	3,380	1,530	2,360	8,650	21,000
12/1/2016	14,500	2,210	5,250	5,275	1,635	3,470	1,610	2,425	8,625	22,250
12/2/2016	14,675	2,260	5,350	5,300	1,670	3,380	1,665	2,460	8,750	22,975
12/5/2016	14,650	2,225	5,325	5,325	1,660	3,430	1,730	2,695	8,875	23,500
12/6/2016	14,675	2,265	5,325	5,375	1,760	3,370	1,730	2,610	8,700	23,250

12/7/2016	14,650	2,285	5,350	5,350	1,805	3,370	1,710	2,555	8,675	23,025
12/8/2016	14,700	2,300	5,475	5,425	1,775	3,240	1,650	2,520	8,850	22,600
12/9/2016	14,700	2,295	5,488	5,475	1,730	3,310	1,680	2,540	8,850	22,800
12/13/2016	14,700	2,345	5,413	5,475	1,715	3,250	1,700	2,525	8,950	22,475
12/14/2016	14,750	2,300	5,438	5,475	1,730	3,240	1,690	2,520	8,925	22,325
12/15/2016	14,775	2,280	5,400	5,400	1,715	3,250	1,670	2,540	8,700	22,550
12/16/2016	14,800	2,255	5,375	5,350	1,700	3,240	1,660	2,500	8,625	21,975
12/19/2016	14,725	2,250	5,413	5,425	1,680	3,060	1,695	2,460	8,325	21,100
12/20/2016	14,775	2,245	5,400	5,400	1,655	2,880	1,700	2,420	8,175	20,700
12/21/2016	14,675	2,200	5,375	5,350	1,650	2,820	1,670	2,435	7,925	20,150
12/22/2016	14,550	2,175	5,375	5,300	1,630	2,700	1,680	2,435	7,775	19,525
12/23/2016	14,450	2,175	5,388	5,250	1,630	2,720	1,655	2,360	7,550	19,675
12/27/2016	14,800	2,200	5,400	5,250	1,645	2,680	1,675	2,420	7,950	20,050
12/28/2016	14,725	2,275	5,575	5,375	1,745	2,770	1,690	2,430	8,325	20,775
12/29/2016	15,350	2,330	5,788	5,475	1,770	2,840	1,690	2,500	8,625	20,950
12/30/2016	15,500	2,335	5,788	5,525	1,740	2,820	1,695	2,500	8,575	21,250
1/2/2017	15,500	2,335	5,788	5,525	1,740	2,820	1,695	2,500	8,575	21,250
1/3/2017	15,775	2,380	5,650	5,475	1,700	2,780	1,740	2,555	8,600	21,000
1/4/2017	15,700	2,440	5,675	5,600	1,785	2,720	1,700	2,475	8,600	21,400
1/5/2017	15,675	2,420	5,625	5,625	1,770	2,840	1,665	2,410	8,575	21,975
1/6/2017	15,600	2,420	5,688	5,600	1,825	2,930	1,695	2,455	8,525	21,700
1/9/2017	15,350	2,350	5,638	5,550	1,820	2,850	1,720	2,405	8,800	21,900
1/10/2017	15,400	2,360	5,700	5,600	1,835	2,880	1,685	2,410	8,775	21,950
1/11/2017	15,300	2,360	5,688	5,600	1,840	3,020	1,745	2,420	8,575	21,800
1/12/2017	15,325	2,375	5,650	5,550	1,885	2,950	1,715	2,440	8,550	21,225
1/13/2017	15,275	2,390	5,550	5,475	1,900	2,480	1,700	2,455	8,525	21,925
1/16/2017	15,175	2,380	5,463	5,475	1,880	2,510	1,700	2,440	8,450	21,550
1/17/2017	15,175	2,385	5,463	5,525	1,900	2,490	1,700	2,415	8,425	21,400
1/18/2017	15,300	2,390	5,525	5,575	1,880	2,470	1,720	2,410	8,575	21,700
1/19/2017	15,375	2,400	5,525	5,450	1,880	2,400	1,730	2,405	8,600	21,775
1/20/2017	15,250	2,360	5,500	5,450	1,890	2,300	1,730	2,360	8,500	22,000
1/23/2017	15,050	2,360	5,488	5,525	1,895	2,270	1,725	2,340	8,450	21,975
1/24/2017	15,050	2,365	5,500	5,550	1,905	2,280	1,725	2,260	8,475	22,800
1/25/2017	14,950	2,340	5,500	5,500	1,920	2,300	1,740	2,195	8,600	22,625
1/26/2017	15,300	2,350	5,450	5,600	1,905	2,420	1,730	2,160	8,550	22,900
1/27/2017	15,400	2,345	5,488	5,750	1,925	2,340	1,725	2,165	8,550	22,600
1/30/2017	15,450	2,350	5,513	5,725	1,910	2,330	1,715	2,265	8,475	22,375

1/31/2017	15,300	2,345	5,450	5,700	1,905	2,370	1,695	2,320	8,400	21,850
2/1/2017	15,425	2,390	5,488	5,950	1,890	2,560	1,750	2,340	8,425	22,300
2/2/2017	15,450	2,395	5,500	6,025	1,895	2,840	1,740	2,320	8,450	22,600
2/3/2017	15,475	2,400	5,538	5,975	1,890	2,770	1,720	2,350	8,450	23,000
2/6/2017	15,600	2,410	5,688	6,025	1,905	2,720	1,740	2,240	8,575	23,075
2/7/2017	15,625	2,405	5,700	6,100	1,920	2,740	1,730	2,200	8,475	23,100
2/8/2017	15,600	2,390	5,613	6,125	1,900	2,670	1,720	2,280	8,500	23,000
2/9/2017	15,625	2,395	5,738	6,200	1,915	2,650	1,725	2,215	8,500	22,750
2/10/2017	15,000	2,405	5,700	6,250	1,915	2,740	1,710	2,200	8,550	23,000
2/13/2017	15,525	2,415	5,725	6,300	1,960	2,810	1,680	2,215	8,500	23,325
2/14/2017	15,500	2,400	5,713	6,300	2,030	2,750	1,645	2,185	8,450	23,025
2/15/2017	15,500	2,400	5,713	6,300	2,030	2,750	1,645	2,185	8,450	23,025
2/16/2017	15,500	2,400	5,600	6,200	2,090	2,750	1,700	2,150	8,400	23,825
2/17/2017	15,475	2,340	5,538	6,300	2,170	2,790	1,660	2,135	8,375	23,875
2/20/2017	15,450	2,350	5,638	6,275	2,140	2,790	1,695	2,220	8,375	24,425
2/21/2017	15,500	2,380	5,575	6,275	2,150	2,740	1,720	2,250	8,250	24,475
2/22/2017	15,500	2,400	5,650	6,275	2,240	2,670	1,705	2,240	8,250	24,375
2/23/2017	15,500	2,385	5,575	6,325	2,210	2,590	1,715	2,260	8,300	24,650
2/24/2017	15,500	2,390	5,550	6,350	2,150	2,460	1,700	2,230	8,325	25,500
2/27/2017	15,500	2,375	5,588	6,175	2,090	2,560	1,700	2,205	8,350	24,925
2/28/2017	15,450	2,390	5,650	6,250	2,140	2,550	1,695	2,235	8,325	24,650
3/1/2017	15,500	2,390	5,675	6,225	2,060	2,510	1,675	2,225	8,275	23,900
3/2/2017	15,500	2,370	5,663	6,225	2,120	2,560	1,685	2,240	8,250	25,075
3/3/2017	15,475	2,370	5,675	6,350	2,110	2,520	1,685	2,195	8,225	25,100
3/6/2017	15,475	2,390	5,650	6,300	2,070	2,550	1,685	2,150	8,300	26,200
3/7/2017	15,450	2,400	5,663	6,300	2,030	2,500	1,695	2,190	8,225	26,000
3/8/2017	15,500	2,400	5,663	6,275	2,050	2,460	1,695	2,160	8,200	25,600
3/9/2017	15,625	2,415	5,688	6,400	2,080	2,350	1,685	2,170	8,150	25,900
3/10/2017	15,625	2,415	5,700	6,300	2,140	2,320	1,600	2,075	8,150	25,750
3/13/2017	15,550	2,415	5,700	6,350	2,120	2,320	1,625	2,080	8,325	25,400
3/14/2017	15,675	2,410	5,713	6,375	2,260	2,300	1,645	2,160	8,375	25,950
3/15/2017	15,650	2,430	5,725	6,400	2,250	2,290	1,650	2,190	8,475	25,350
3/16/2017	15,875	2,505	5,788	6,600	2,300	2,320	1,680	2,280	8,825	25,700
3/17/2017	15,950	2,600	5,813	6,700	2,260	2,340	1,705	2,285	8,700	27,000
3/20/2017	16,075	2,600	5,888	6,600	2,200	2,360	1,705	2,265	8,725	26,075
3/21/2017	16,250	2,600	5,900	6,575	2,250	2,340	1,730	2,295	8,725	27,250
3/22/2017	16,325	2,640	5,888	6,600	2,240	2,330	1,730	2,315	8,800	27,800

3/23/2017	16,600	2,630	5,950	6,900	2,320	2,350	1,740	2,325	8,775	27,600
3/24/2017	16,550	2,630	5,950	6,800	2,320	2,320	1,770	2,365	8,600	27,775
3/27/2017	16,550	2,555	5,850	6,525	2,280	2,270	1,800	2,350	8,425	27,150
3/29/2017	16,700	2,565	5,888	6,600	2,310	2,310	1,820	2,450	8,375	27,850
3/30/2017	16,825	2,590	5,888	6,375	2,280	2,300	1,820	2,585	8,250	27,850
3/31/2017	16,550	2,595	5,850	6,475	2,270	2,390	1,750	2,640	8,150	26,500
4/3/2017	16,575	2,605	5,875	6,450	2,280	2,310	1,805	2,640	8,425	27,825
4/4/2017	16,750	2,605	5,875	6,550	2,280	2,280	1,930	2,770	8,400	29,150
4/5/2017	16,750	2,605	5,875	6,550	2,280	2,280	1,930	2,770	8,400	29,150
4/6/2017	17,325	2,635	6,213	6,700	2,310	2,330	1,895	2,570	8,225	29,000
4/7/2017	17,350	2,610	6,100	6,475	2,320	2,280	1,890	2,620	8,175	28,700
4/10/2017	17,350	2,620	6,025	6,450	2,330	2,280	1,890	2,605	8,175	28,600
4/11/2017	17,450	2,580	5,875	6,375	2,320	2,270	1,870	2,595	8,125	29,000
4/12/2017	17,650	2,555	5,850	6,375	2,320	2,250	1,890	2,395	8,100	29,000
4/13/2017	17,350	2,540	5,825	6,275	2,280	2,230	1,860	2,500	8,125	28,150
4/17/2017	16,925	2,485	5,813	6,250	2,270	2,230	1,850	2,565	8,150	27,225
4/18/2017	16,925	2,575	5,875	6,350	2,290	2,200	1,835	2,520	8,200	27,850
4/19/2017	16,925	2,575	5,875	6,350	2,290	2,200	1,835	2,520	8,200	27,850
4/20/2017	17,325	2,550	5,763	6,250	2,320	2,180	1,840	2,520	8,175	27,400
4/21/2017	17,475	2,585	5,700	6,150	2,330	2,150	1,840	2,490	8,400	26,925
4/25/2017	17,400	2,625	5,775	6,200	2,350	2,150	1,845	2,535	8,500	26,600
4/26/2017	18,000	2,645	5,913	6,400	2,330	2,150	1,820	2,535	8,525	27,900
4/27/2017	17,525	2,600	5,863	6,375	2,330	2,170	1,840	2,570	8,700	27,250
4/28/2017	17,750	2,580	5,850	6,375	2,300	2,220	1,775	2,535	8,775	26,900
5/2/2017	17,900	2,610	5,838	6,425	2,300	2,260	1,720	2,470	8,550	26,000
5/3/2017	17,750	2,640	5,788	6,400	2,300	2,110	1,630	2,475	8,600	25,900
5/4/2017	17,825	2,785	5,850	6,625	2,350	2,050	1,615	2,375	8,600	25,050
5/5/2017	17,775	2,785	5,988	6,575	2,340	1,980	1,560	2,300	8,625	25,050
5/8/2017	17,950	2,820	6,025	6,725	2,440	1,975	1,615	2,330	8,600	25,900
5/9/2017	18,000	2,800	6,000	6,650	2,450	1,930	1,550	2,275	8,625	25,500
5/10/2017	17,925	2,795	6,013	6,575	2,350	1,900	1,495	2,170	8,700	25,050
5/12/2017	18,000	2,805	6,000	6,675	2,310	1,885	1,480	2,195	8,600	24,375
5/15/2017	18,250	2,860	6,063	6,525	2,310	1,885	1,485	2,175	8,625	24,550
5/16/2017	17,400	2,805	5,988	6,550	2,340	1,990	1,465	2,170	8,575	23,825
5/17/2017	16,950	2,820	6,000	6,500	2,430	1,910	1,410	2,115	8,700	23,100
5/18/2017	17,400	2,820	6,075	6,525	2,400	1,900	1,435	2,120	8,700	23,450
5/19/2017	17,900	2,900	6,450	6,700	2,530	1,930	1,465	2,160	9,100	24,150

5/22/2017	17,650	2,925	6,263	6,825	2,550	1,945	1,435	2,150	8,750	24,400
5/23/2017	17,700	2,895	6,125	6,575	2,490	1,905	1,475	2,155	8,825	24,600
5/24/2017	17,475	2,830	6,200	6,525	2,470	1,875	1,480	2,150	8,825	24,100
5/26/2017	17,575	2,845	6,075	6,475	2,500	1,890	1,485	2,150	8,800	24,575
5/29/2017	17,775	2,840	6,175	6,525	2,460	1,875	1,465	2,145	8,825	26,025
5/30/2017	17,600	2,840	6,213	6,525	2,450	1,865	1,460	2,130	8,675	27,075
5/31/2017	17,150	2,895	6,300	6,550	2,500	1,905	1,520	2,180	8,700	27,775
6/1/2017	17,150	2,895	6,300	6,550	2,500	1,905	1,520	2,180	8,700	27,775
6/2/2017	17,550	2,950	6,300	6,450	2,470	1,880	1,470	2,160	8,700	26,550
6/5/2017	17,725	3,005	6,338	6,475	2,470	1,865	1,545	2,165	8,800	26,550
6/6/2017	17,550	2,935	6,250	6,500	2,420	1,850	1,605	2,210	8,750	26,950
6/7/2017	17,800	2,985	6,200	6,475	2,440	1,880	1,600	2,275	8,725	27,150
6/8/2017	17,925	2,930	6,163	6,450	2,510	1,865	1,575	2,240	8,475	27,200
6/9/2017	17,700	2,875	6,113	6,400	2,560	1,870	1,555	2,250	8,400	26,500
6/12/2017	17,750	2,925	6,113	6,450	2,570	1,890	1,540	2,210	8,475	27,075
6/13/2017	17,875	2,895	6,125	6,450	2,680	1,965	1,600	2,240	8,500	27,325
6/14/2017	17,975	2,970	6,250	6,500	2,700	1,955	1,660	2,310	8,750	27,700
6/15/2017	18,050	2,935	6,250	6,575	2,700	1,980	1,645	2,280	8,750	27,475
6/16/2017	17,800	2,935	6,238	6,500	2,640	1,895	1,605	2,280	8,750	26,500
6/19/2017	17,925	2,960	6,238	6,550	2,660	1,895	1,565	2,285	8,675	26,450
6/20/2017	18,100	2,995	6,263	6,700	2,660	1,895	1,640	2,370	8,775	27,000
6/21/2017	18,200	3,060	6,350	6,625	2,670	1,885	1,595	2,370	8,800	27,200
6/22/2017	18,150	3,050	6,375	6,600	2,600	1,850	1,580	2,390	8,800	27,450
6/23/2017	18,150	3,050	6,375	6,600	2,600	1,850	1,580	2,390	8,800	27,450
6/26/2017	18,150	3,050	6,375	6,600	2,600	1,850	1,580	2,390	8,800	27,450
6/27/2017	18,150	3,050	6,375	6,600	2,600	1,850	1,580	2,390	8,800	27,450
6/28/2017	18,150	3,050	6,375	6,600	2,600	1,850	1,580	2,390	8,800	27,450
6/29/2017	18,150	3,050	6,375	6,600	2,600	1,850	1,580	2,390	8,800	27,450
6/30/2017	18,150	3,050	6,375	6,600	2,600	1,850	1,580	2,390	8,800	27,450
7/3/2017	18,500	3,100	6,750	6,600	2,600	1,880	1,630	2,410	8,800	28,850
7/4/2017	18,550	3,060	6,750	6,575	2,640	1,855	1,580	2,480	8,800	28,500
7/5/2017	18,350	3,040	6,663	6,650	2,600	1,885	1,620	2,420	8,675	27,825
7/6/2017	18,225	3,010	6,663	6,775	2,570	1,860	1,635	2,450	8,525	28,100
7/7/2017	18,500	3,010	6,625	6,725	2,500	1,865	1,610	2,480	8,500	27,200
7/10/2017	18,300	2,945	6,550	6,850	2,390	1,865	1,595	2,480	8,500	27,625
7/11/2017	18,325	2,925	6,488	6,900	2,400	1,845	1,615	2,410	8,475	27,975
7/12/2017	18,425	2,965	6,613	7,000	2,490	1,910	1,665	2,500	8,525	27,925

7/13/2017	18,500	2,980	6,700	7,025	2,450	1,960	1,625	2,480	8,600	28,000
7/14/2017	18,400	2,960	6,775	7,100	2,470	1,960	1,665	2,500	8,700	28,000
7/17/2017	18,300	3,000	6,788	7,025	2,450	2,090	1,700	2,590	8,650	27,950
7/18/2017	18,350	2,980	6,763	7,000	2,430	2,050	1,695	2,575	8,625	27,975
7/19/2017	18,475	2,945	6,663	7,000	2,400	2,130	1,765	2,640	8,500	28,550
7/20/2017	18,450	2,945	6,750	6,950	2,440	2,150	1,820	2,660	8,500	28,850
7/21/2017	18,225	2,935	6,525	6,950	2,410	2,190	1,820	2,630	8,475	28,825
7/24/2017	18,575	2,935	6,638	7,050	2,440	2,170	1,835	2,600	8,650	28,300
7/25/2017	18,575	2,960	6,675	7,100	2,490	2,300	1,830	2,620	8,675	28,900
7/26/2017	18,775	2,955	6,675	7,150	2,420	2,380	1,800	2,590	8,625	28,850
7/27/2017	18,800	2,940	6,688	7,300	2,520	2,390	1,800	2,595	8,600	28,950
7/28/2017	18,800	2,900	6,688	7,350	2,590	2,490	1,825	2,635	8,475	29,350
7/31/2017	18,700	2,955	6,825	7,450	2,600	2,420	1,785	2,620	8,350	30,100
8/1/2017	18,925	2,960	6,700	7,250	2,620	2,450	1,860	2,675	8,325	30,500
8/2/2017	18,925	2,990	6,638	7,275	2,640	2,430	1,895	2,690	8,300	30,400
8/3/2017	18,750	2,970	6,563	7,175	2,610	2,430	1,845	2,665	8,300	29,200
8/4/2017	18,575	2,985	6,538	7,275	2,640	2,460	1,870	2,705	8,300	29,200
8/7/2017	18,625	2,980	6,588	7,175	2,630	2,370	1,850	2,750	8,275	28,700
8/8/2017	19,000	2,990	6,713	7,225	2,670	2,440	1,870	2,710	8,350	29,200
8/9/2017	18,975	3,005	6,700	7,275	2,750	2,640	1,805	2,620	8,350	29,825
8/10/2017	18,825	3,000	6,663	7,275	2,740	2,610	1,850	2,695	8,300	30,425
8/11/2017	18,675	3,000	6,600	7,275	2,710	2,550	1,820	2,660	8,350	29,600
8/14/2017	18,750	3,015	6,625	7,300	2,740	2,540	1,850	2,645	8,350	29,900
8/15/2017	18,675	3,010	6,650	7,400	2,710	2,550	1,855	2,630	8,400	30,175
8/16/2017	18,900	3,050	6,663	7,400	2,680	2,550	1,880	2,630	8,675	29,975
8/17/2017	18,900	3,050	6,663	7,400	2,680	2,550	1,880	2,630	8,675	29,975
8/18/2017	18,700	3,030	6,550	7,400	2,800	2,720	1,875	2,630	8,700	29,475
8/21/2017	18,800	3,055	6,600	7,400	2,830	2,800	1,865	2,580	8,675	28,900
8/22/2017	18,800	3,060	6,625	7,400	2,900	2,990	1,860	2,620	8,725	29,550
8/23/2017	19,150	3,060	6,638	7,400	2,900	2,980	1,955	2,630	8,725	29,500
8/24/2017	18,950	3,045	6,600	7,425	2,840	2,920	1,965	2,640	8,600	30,475
8/25/2017	19,100	3,060	6,588	7,425	2,870	2,890	1,945	2,620	8,850	30,350
8/28/2017	19,075	3,045	6,613	7,375	2,930	2,930	1,890	2,575	8,800	30,600
8/29/2017	19,075	2,995	6,550	7,350	2,950	2,960	1,870	2,595	8,675	30,600
8/30/2017	19,100	3,015	6,550	7,350	2,950	3,080	1,890	2,485	8,650	30,300
8/31/2017	18,950	3,025	6,550	7,350	3,010	2,970	1,825	2,475	8,725	30,300
9/1/2017	18,950	3,025	6,550	7,350	3,010	2,970	1,825	2,475	8,725	30,300

9/4/2017	18,875	2,975	6,525	7,200	3,050	3,010	1,815	2,340	8,675	29,700
9/5/2017	19,000	3,000	6,538	7,225	3,160	2,980	1,860	2,430	8,575	30,400
9/6/2017	18,900	2,970	6,475	7,200	3,090	2,990	1,890	2,455	8,775	30,325
9/7/2017	18,950	3,000	6,513	7,300	3,020	3,000	1,865	2,420	8,725	31,975
9/8/2017	18,850	3,000	6,638	7,225	3,000	2,980	1,885	2,475	8,725	31,600
9/11/2017	18,900	2,990	6,600	7,225	3,000	2,980	1,900	2,470	8,700	31,850
9/12/2017	19,025	2,985	6,600	7,250	3,020	3,020	1,865	2,435	8,775	31,600
9/13/2017	19,050	2,980	6,575	7,250	3,060	2,970	1,715	2,015	8,775	30,375
9/14/2017	19,100	2,965	6,550	7,250	3,140	2,840	1,740	1,995	8,725	30,000
9/15/2017	18,875	2,970	6,625	7,275	3,300	2,730	1,775	1,925	8,700	31,050
9/18/2017	18,975	3,000	6,575	7,250	3,270	2,760	1,820	2,075	8,775	30,700
9/19/2017	19,075	3,005	6,600	7,350	3,210	2,680	1,870	2,090	8,825	31,100
9/20/2017	19,050	3,005	6,600	7,375	3,210	2,790	1,860	2,085	8,850	31,975
9/21/2017	19,050	3,005	6,600	7,375	3,210	2,790	1,860	2,085	8,850	31,975
9/22/2017	19,875	3,135	6,600	7,475	3,260	2,600	1,815	2,055	8,875	30,675
9/25/2017	19,675	3,135	6,575	7,500	3,270	2,650	1,755	1,995	8,900	30,275
9/26/2017	19,650	3,110	6,550	7,400	3,230	2,640	1,710	1,980	8,800	31,000
9/27/2017	19,750	3,050	6,600	7,275	3,180	2,600	1,670	1,845	8,825	30,425
9/28/2017	19,825	2,940	6,575	7,300	3,060	2,520	1,765	2,000	8,725	31,400
9/29/2017	20,300	3,055	6,725	7,400	3,150	2,590	1,825	2,090	8,725	32,000
10/2/2017	20,325	3,050	6,700	7,475	3,030	2,600	1,775	2,010	8,875	32,100
10/3/2017	20,350	3,065	6,700	7,650	2,930	2,750	1,780	2,120	8,700	33,000
10/4/2017	20,325	3,055	6,650	7,625	2,940	2,910	1,825	2,130	8,775	33,550
10/5/2017	20,275	3,065	6,600	7,500	2,960	2,790	1,830	2,165	8,675	32,175
10/6/2017	20,450	3,075	6,600	7,425	3,010	2,820	1,875	2,220	8,650	32,525
10/9/2017	20,350	3,075	6,600	7,375	2,990	2,800	1,890	2,200	8,700	33,125
10/10/2017	20,375	3,055	6,700	7,300	2,960	2,920	1,900	2,170	8,700	34,250
10/11/2017	20,375	3,055	6,725	7,300	3,010	2,970	1,880	2,255	8,725	34,250
10/12/2017	20,800	3,075	6,825	7,500	3,140	2,990	1,900	2,240	8,700	34,700
10/13/2017	20,675	3,070	6,775	7,625	3,050	3,000	1,900	2,215	8,825	34,250
10/16/2017	20,725	3,070	6,925	7,525	3,070	2,970	1,870	2,130	8,700	34,450
10/17/2017	20,500	3,080	7,025	7,550	3,080	2,880	1,900	2,150	8,850	34,025
10/18/2017	20,200	3,080	7,075	7,650	3,060	2,820	1,880	2,185	8,875	34,900
10/19/2017	20,325	3,100	6,975	7,675	3,120	2,870	1,865	2,200	8,925	34,350
10/20/2017	20,350	3,125	7,100	7,650	3,060	2,990	1,855	2,120	8,725	33,000
10/23/2017	21,000	3,125	6,950	7,550	3,060	2,990	1,850	2,140	8,850	32,150
10/24/2017	20,600	3,095	6,825	7,550	3,050	3,030	1,890	2,160	8,725	32,050

10/25/2017	21,050	3,120	7,000	7,600	3,000	2,970	1,900	2,145	8,875	34,950
10/26/2017	20,775	3,125	7,025	7,600	2,970	2,890	1,825	2,205	8,900	33,300
10/27/2017	20,300	3,120	6,950	7,700	2,830	2,800	1,840	2,185	8,900	32,675
10/30/2017	20,425	3,110	7,075	7,600	2,760	2,920	1,835	2,285	8,825	34,100
10/31/2017	20,900	3,120	7,050	7,600	2,760	2,940	1,825	2,295	8,800	34,675
11/1/2017	21,325	3,140	7,100	7,925	2,820	3,020	1,910	2,335	8,850	36,250
11/2/2017	21,475	3,190	7,275	7,825	2,860	3,050	1,900	2,315	8,625	35,500
11/3/2017	21,025	3,200	7,250	7,750	2,880	3,080	1,895	2,310	8,850	35,300
11/6/2017	21,000	3,250	7,225	7,700	2,920	3,170	1,900	2,280	8,750	35,300
11/7/2017	21,050	3,240	7,125	7,950	2,900	3,290	1,900	2,410	8,575	35,775
11/8/2017	20,800	3,290	7,175	7,875	2,890	3,210	1,820	2,350	8,500	34,250
11/9/2017	20,800	3,290	7,075	7,975	2,870	3,180	1,830	2,360	8,500	34,100
11/10/2017	20,650	3,280	7,050	7,975	2,910	3,120	1,815	2,375	8,525	32,725
11/13/2017	20,475	3,260	7,050	7,850	2,910	3,130	1,820	2,400	8,550	32,875
11/14/2017	20,475	3,170	6,950	7,875	2,950	3,150	1,815	2,360	8,550	33,525
11/15/2017	21,025	3,140	6,975	7,675	2,970	3,040	1,735	2,245	8,575	32,700
11/16/2017	21,025	3,210	7,100	7,875	2,940	3,010	1,755	2,225	8,750	33,200
11/17/2017	21,175	3,290	7,325	8,175	2,980	2,970	1,770	2,240	8,950	33,075
11/20/2017	21,025	3,340	7,425	7,975	2,980	2,900	1,755	2,235	8,925	32,200
11/21/2017	21,125	3,280	7,400	7,925	2,990	2,920	1,715	2,155	8,900	31,575
11/22/2017	21,175	3,400	7,375	8,250	3,070	2,950	1,745	2,210	8,825	32,500
11/23/2017	21,000	3,360	7,450	8,225	3,060	2,900	1,725	2,180	8,725	32,375
11/24/2017	21,000	3,350	7,450	8,225	3,070	2,940	1,710	2,160	8,550	31,800
11/27/2017	21,300	3,300	7,425	8,150	3,100	2,900	1,695	2,180	8,675	31,800
11/28/2017	21,300	3,380	7,425	8,400	3,180	2,780	1,715	2,170	8,675	32,400
11/29/2017	21,175	3,300	7,400	8,400	3,160	2,780	1,775	2,250	8,775	33,900
11/30/2017	20,350	3,210	7,400	8,100	3,200	2,760	1,700	2,250	8,450	33,500
12/1/2017	20,350	3,210	7,400	8,100	3,200	2,760	1,700	2,250	8,450	33,500
12/4/2017	20,800	3,300	7,450	8,225	3,290	2,790	1,775	2,295	8,750	33,000
12/5/2017	21,000	3,350	7,475	8,450	3,400	2,690	1,780	2,240	8,650	32,725
12/6/2017	21,300	3,460	7,475	8,525	3,380	2,680	1,755	2,220	8,850	32,675
12/7/2017	20,975	3,380	7,350	8,525	3,550	2,700	1,710	2,190	8,675	33,000
12/8/2017	21,125	3,370	7,475	8,850	3,540	2,690	1,725	2,210	8,775	32,900
12/11/2017	21,075	3,440	7,475	8,900	3,450	2,610	1,710	2,185	8,700	32,450
12/12/2017	21,250	3,450	7,450	8,800	3,360	2,680	1,810	2,200	8,800	32,000
12/13/2017	20,925	3,450	7,475	9,100	3,360	2,850	1,815	2,240	8,775	33,100
12/14/2017	21,100	3,460	7,475	9,225	3,370	2,820	1,805	2,240	8,800	33,375

12/15/2017	21,100	3,390	7,425	9,375	3,370	2,850	1,805	2,280	8,725	33,050
12/18/2017	21,100	3,390	7,500	9,300	3,430	2,900	1,800	2,260	8,925	33,100
12/19/2017	21,100	3,440	7,475	9,525	3,480	2,920	1,835	2,460	8,875	33,400
12/20/2017	20,925	3,400	7,450	9,525	3,470	2,850	1,800	2,460	8,925	32,825
12/21/2017	21,100	3,420	7,625	9,850	3,510	2,840	1,870	2,550	9,075	33,725
12/22/2017	21,500	3,460	7,675	9,850	3,500	2,800	1,890	2,520	9,000	34,250
12/25/2017	21,500	3,460	7,675	9,850	3,500	2,800	1,890	2,520	9,000	34,250
12/26/2017	21,500	3,460	7,675	9,850	3,500	2,800	1,890	2,520	9,000	34,250
12/27/2017	21,525	3,550	8,000	9,900	3,490	2,830	1,895	2,510	9,000	34,575
12/28/2017	21,925	3,630	7,950	9,925	3,520	2,830	1,890	2,500	8,900	34,600
12/29/2017	21,900	3,640	8,000	9,900	3,570	2,890	1,860	2,460	8,900	35,400
1/1/2018	21,900	3,640	8,000	9,900	3,570	2,890	1,860	2,460	8,900	35,400
1/2/2018	21,900	3,630	7,850	9,775	3,590	3,030	1,880	2,500	9,100	34,150
1/3/2018	21,900	3,610	7,700	9,425	3,590	3,050	1,830	2,440	9,100	33,075
1/4/2018	22,225	3,550	7,825	9,400	3,460	3,110	1,915	2,480	9,125	34,000
1/5/2018	22,250	3,590	7,825	9,300	3,440	3,170	1,990	2,610	9,275	35,425
1/8/2018	22,350	3,590	7,925	9,300	3,420	3,170	2,160	2,670	9,000	35,700
1/9/2018	22,525	3,570	7,900	9,300	3,500	3,180	2,180	2,730	8,875	35,900
1/10/2018	22,450	3,530	7,900	9,275	3,610	3,200	2,210	2,720	8,725	36,900
1/11/2018	22,700	3,540	8,075	9,275	3,620	3,170	2,180	2,800	8,725	36,850
1/12/2018	22,425	3,540	8,100	9,275	3,630	3,180	2,230	2,890	8,850	37,025
1/15/2018	22,475	3,550	8,200	9,500	3,640	3,220	2,230	3,030	8,850	37,175
1/16/2018	22,600	3,610	8,225	9,600	3,650	3,330	2,190	3,060	8,850	37,325
1/17/2018	22,150	3,630	8,100	9,600	3,670	3,350	2,170	3,020	8,875	37,700
1/18/2018	22,575	3,620	8,125	9,500	3,690	3,330	2,170	3,040	8,875	37,200
1/19/2018	22,450	3,620	8,075	9,425	3,660	3,380	2,180	3,120	8,700	37,400
1/22/2018	22,475	3,650	8,075	9,400	3,640	3,380	2,310	3,300	8,700	38,525
1/23/2018	22,650	3,920	8,175	9,650	3,690	3,360	2,420	3,320	8,850	40,425
1/24/2018	22,575	3,830	8,250	9,725	3,680	3,430	2,440	3,330	8,850	40,000
1/25/2018	22,575	3,770	8,150	9,600	3,630	3,660	2,450	3,340	8,825	39,975
1/26/2018	22,700	3,850	8,200	9,600	3,600	3,700	2,440	3,330	8,825	39,650
1/29/2018	22,800	3,800	8,175	9,500	3,640	3,860	2,560	3,430	8,875	39,800
1/30/2018	22,800	3,720	8,050	9,225	3,600	3,750	2,550	3,400	8,700	38,500
1/31/2018	22,725	3,700	8,150	9,400	3,660	3,750	2,450	3,400	8,725	38,900
2/1/2018	23,375	3,700	8,200	9,325	3,610	3,800	2,400	3,340	8,700	38,800
2/2/2018	23,975	3,740	8,125	9,300	3,670	3,800	2,470	3,300	8,800	39,200
2/5/2018	23,800	3,780	8,125	9,275	3,650	3,670	2,520	3,300	8,750	38,575

2/6/2018	23,525	3,680	8,025	9,075	3,600	3,570	2,450	3,170	8,750	37,700
2/7/2018	23,500	3,700	8,125	9,550	3,600	3,710	2,450	3,170	8,825	38,500
2/8/2018	23,700	3,720	8,175	9,500	3,640	3,630	2,420	3,130	8,950	38,750
2/9/2018	23,575	3,710	8,225	9,425	3,600	3,500	2,320	3,050	8,925	38,600
2/12/2018	23,500	3,800	8,200	9,525	3,720	3,540	2,350	3,090	8,900	37,650
2/13/2018	23,800	3,880	8,275	9,700	3,760	3,610	2,420	3,270	8,900	37,650
2/14/2018	23,700	3,860	8,300	9,700	3,810	3,630	2,440	3,230	8,950	37,725
2/15/2018	23,450	3,840	8,300	9,625	3,770	3,700	2,470	3,240	8,975	37,750
2/16/2018	23,450	3,840	8,300	9,625	3,770	3,700	2,470	3,240	8,975	37,750
2/19/2018	24,250	3,860	8,475	9,875	3,840	3,680	2,490	3,320	9,100	38,200
2/20/2018	24,025	3,800	9,050	9,925	3,800	3,590	2,430	3,330	8,875	37,350
2/21/2018	24,025	3,800	8,800	10,175	3,800	3,520	2,470	3,380	8,825	37,000
2/22/2018	23,900	3,770	8,625	9,775	3,790	3,430	2,480	3,360	8,900	35,875
2/23/2018	24,250	3,790	8,550	9,850	3,750	3,350	2,480	3,400	8,925	37,000
2/26/2018	23,525	3,740	8,300	9,825	3,670	3,440	2,390	3,240	8,925	36,600
2/27/2018	23,550	3,770	8,425	9,825	3,730	3,470	2,400	3,110	9,000	36,600
2/28/2018	23,175	3,780	8,300	9,725	3,740	3,390	2,350	3,170	8,975	35,600
3/1/2018	23,175	3,790	8,375	9,625	3,760	3,300	2,420	3,170	9,000	36,525
3/2/2018	22,875	3,790	8,475	9,525	3,770	3,150	2,310	3,070	9,100	35,700
3/5/2018	22,875	3,770	8,225	9,550	3,800	3,140	2,320	3,090	9,000	35,175
3/6/2018	22,775	3,730	8,050	9,175	3,720	3,070	2,330	3,050	8,925	36,075
3/7/2018	22,600	3,660	7,925	9,075	3,710	3,050	2,160	2,930	8,725	34,900
3/8/2018	23,300	3,770	8,100	9,350	3,800	2,970	2,190	2,800	8,800	35,975
3/9/2018	23,300	3,690	8,100	9,400	3,750	2,990	2,170	2,890	9,000	36,225
3/12/2018	23,625	3,760	8,325	9,350	3,700	3,180	2,220	3,000	9,100	36,450
3/13/2018	23,450	3,760	8,175	9,250	3,750	3,110	2,170	2,930	8,725	35,200
3/14/2018	23,400	3,750	8,200	9,450	3,680	3,150	2,070	2,850	8,700	33,700
3/15/2018	23,375	3,640	8,000	9,400	3,570	3,130	2,050	2,790	8,625	33,700
3/16/2018	23,350	3,680	7,925	9,525	3,690	3,060	2,040	2,810	8,750	32,575
3/19/2018	23,350	3,690	8,075	9,600	3,740	2,900	2,040	2,840	8,825	32,500
3/20/2018	23,275	3,740	8,100	9,250	3,620	2,940	2,070	2,870	8,575	32,050
3/21/2018	23,375	3,810	8,200	9,275	3,690	3,090	2,040	2,880	8,600	32,400
3/22/2018	23,450	3,670	8,000	8,900	3,810	3,030	2,020	2,890	8,750	32,700
3/23/2018	23,800	3,600	8,050	8,725	3,750	2,880	1,995	2,890	8,700	32,000
3/26/2018	23,275	3,600	8,075	9,150	3,760	2,830	2,030	2,930	8,550	32,000
3/27/2018	23,450	3,600	8,000	9,200	3,670	2,830	2,040	2,950	8,375	32,000
3/28/2018	23,325	3,550	7,800	8,650	3,690	2,750	2,040	2,910	8,475	31,800

3/29/2018	23,300	3,600	7,675	8,675	3,800	2,790	2,130	2,940	8,275	32,000
3/30/2018	23,300	3,600	7,675	8,675	3,800	2,790	2,130	2,940	8,275	32,000
4/2/2018	23,400	3,600	7,825	8,725	3,730	2,870	2,130	3,060	8,350	32,150
4/3/2018	23,400	3,600	7,800	8,625	3,720	3,000	2,120	3,090	8,200	32,100
4/4/2018	23,300	3,490	7,600	8,275	3,510	2,980	2,040	3,050	8,150	32,000
4/5/2018	23,050	3,470	7,650	8,200	3,540	2,980	2,020	3,230	8,200	32,200
4/6/2018	22,725	3,480	7,550	8,300	3,540	2,950	2,030	3,180	8,175	32,200
4/9/2018	22,775	3,530	7,575	8,500	3,600	3,020	2,070	3,210	8,275	34,475
4/10/2018	23,300	3,580	7,875	8,725	3,640	3,060	2,110	3,300	8,425	35,650
4/11/2018	23,325	3,650	8,050	8,575	3,660	3,120	2,140	3,420	8,400	35,575
4/12/2018	23,150	3,590	8,025	8,650	3,650	3,100	2,110	3,420	8,350	35,200
4/13/2018	22,900	3,550	8,025	8,825	3,580	3,230	2,130	3,430	8,350	35,100
4/16/2018	22,900	3,550	8,025	8,825	3,580	3,230	2,130	3,430	8,350	35,100
4/17/2018	22,900	3,550	8,025	8,825	3,580	3,230	2,130	3,430	8,350	35,100
4/18/2018	22,975	3,660	8,050	8,775	3,620	3,380	2,100	3,480	8,325	36,800
4/19/2018	22,975	3,660	8,050	8,775	3,620	3,380	2,100	3,480	8,325	36,800
4/20/2018	22,975	3,660	8,050	8,775	3,620	3,380	2,100	3,480	8,325	36,800
4/23/2018	23,000	3,580	8,000	8,725	3,720	3,550	2,260	3,350	8,375	37,600
4/24/2018	22,925	3,490	7,725	8,375	3,660	3,430	2,200	3,330	8,350	37,900
4/25/2018	22,925	3,490	7,725	8,375	3,660	3,430	2,200	3,330	8,350	37,900
4/26/2018	22,925	3,490	7,725	8,375	3,660	3,430	2,200	3,330	8,350	37,900
4/27/2018	22,925	3,490	7,725	8,375	3,660	3,430	2,200	3,330	8,350	37,900
4/30/2018	22,100	3,220	7,125	8,050	3,110	3,160	1,835	3,240	8,675	34,100
5/1/2018	22,100	3,220	7,125	8,050	3,110	3,160	1,835	3,240	8,675	34,100
5/2/2018	22,900	3,230	7,200	8,000	3,110	3,280	1,775	3,430	8,700	33,250
5/3/2018	22,300	3,150	6,850	7,725	2,920	3,200	1,680	3,280	8,200	33,500
5/4/2018	22,025	3,030	6,625	7,475	2,650	3,090	1,640	3,350	8,200	33,625
5/7/2018	22,300	3,050	6,800	7,325	2,890	3,100	1,710	3,270	8,575	32,800
5/8/2018	22,025	3,070	6,800	7,325	2,780	3,120	1,625	3,260	8,450	32,250
5/9/2018	22,900	3,210	7,175	8,050	2,860	3,120	1,700	3,430	8,475	33,075
5/10/2018	22,900	3,210	7,175	8,050	2,860	3,120	1,700	3,430	8,475	33,075
5/11/2018	22,750	3,160	7,200	8,275	3,060	3,220	1,715	3,450	8,375	35,375
5/14/2018	22,975	3,190	7,200	8,200	3,000	3,410	1,675	3,560	8,350	35,800
5/15/2018	22,200	3,070	6,850	8,075	2,940	3,500	1,715	3,530	8,200	34,700
5/16/2018	22,375	3,070	6,850	8,000	2,860	3,490	1,800	3,500	8,300	34,775
5/17/2018	22,000	2,990	6,700	7,800	2,830	3,570	1,880	3,550	8,175	36,275
5/18/2018	21,700	2,940	6,800	7,575	2,750	3,690	1,905	3,690	8,000	35,825

5/21/2018	21,650	2,760	6,675	7,300	2,770	3,810	1,950	3,830	8,000	35,300
5/22/2018	22,000	2,720	6,525	7,125	2,790	3,690	1,930	3,790	8,100	35,975
5/23/2018	22,000	2,880	6,775	7,200	2,860	3,650	1,825	3,770	8,025	36,425
5/24/2018	22,450	3,060	7,000	7,675	3,000	3,750	1,835	3,760	8,250	36,950
5/25/2018	22,550	3,120	7,000	7,975	3,000	3,840	1,830	3,750	8,300	37,500
5/28/2018	22,850	3,250	7,375	8,575	3,240	3,750	1,820	3,660	8,625	36,100
5/29/2018	22,850	3,250	7,375	8,575	3,240	3,750	1,820	3,660	8,625	36,100
5/30/2018	22,700	3,140	7,250	8,650	3,170	3,770	1,830	3,780	8,500	36,800
5/31/2018	22,700	3,080	7,050	8,475	3,050	3,860	1,885	3,800	8,700	35,050
6/1/2018	22,700	3,080	7,050	8,475	3,050	3,860	1,885	3,800	8,700	35,050
6/4/2018	22,925	3,130	7,375	8,475	3,100	3,920	1,970	3,960	8,675	35,750
6/5/2018	22,725	3,110	7,350	8,275	3,000	4,030	2,030	4,000	8,775	36,500
6/6/2018	23,025	3,150	7,325	8,250	2,970	4,250	1,985	3,910	8,850	35,475
6/7/2018	22,975	3,270	7,375	8,450	3,070	4,170	1,990	3,940	9,000	36,175
6/8/2018	22,250	3,140	6,950	8,050	3,030	4,220	1,935	4,070	8,850	34,800
6/11/2018	22,250	3,140	6,950	8,050	3,030	4,220	1,935	4,070	8,850	34,800
6/12/2018	22,250	3,140	6,950	8,050	3,030	4,220	1,935	4,070	8,850	34,800
6/13/2018	22,250	3,140	6,950	8,050	3,030	4,220	1,935	4,070	8,850	34,800
6/14/2018	22,250	3,140	6,950	8,050	3,030	4,220	1,935	4,070	8,850	34,800
6/15/2018	22,250	3,140	6,950	8,050	3,030	4,220	1,935	4,070	8,850	34,800
6/18/2018	22,250	3,140	6,950	8,050	3,030	4,220	1,935	4,070	8,850	34,800
6/19/2018	22,250	3,140	6,950	8,050	3,030	4,220	1,935	4,070	8,850	34,800
6/20/2018	21,500	2,960	6,700	7,525	2,860	4,020	2,000	4,240	8,600	33,500
6/21/2018	21,150	2,910	6,700	7,400	2,800	4,030	2,010	4,100	8,250	33,375
6/22/2018	21,925	2,980	6,700	7,400	2,690	4,090	1,930	4,150	8,400	32,975
6/25/2018	22,200	2,890	6,700	7,300	2,640	4,170	1,870	4,130	8,750	32,800
6/26/2018	21,375	2,820	6,625	7,150	2,600	3,990	1,755	4,100	8,800	32,525
6/27/2018	21,350	2,840	6,600	7,050	2,520	3,960	1,705	4,040	8,575	32,200
6/28/2018	20,950	2,750	6,500	6,800	2,370	3,840	1,665	3,840	8,525	31,225
6/29/2018	21,475	2,840	6,850	7,050	2,450	4,040	1,790	3,970	8,850	31,600
7/2/2018	21,450	2,850	6,525	7,050	2,360	4,080	1,745	4,000	8,875	32,400
7/3/2018	20,600	2,830	6,325	6,950	2,350	4,020	1,720	4,000	8,825	31,900
7/4/2018	21,225	2,930	6,600	7,200	2,470	4,070	1,770	4,000	9,075	32,100
7/5/2018	21,225	2,910	6,525	7,100	2,250	4,180	1,825	4,000	8,900	33,250
7/6/2018	20,925	2,840	6,300	6,950	2,150	4,060	1,785	3,950	8,700	33,575
7/9/2018	21,900	3,010	6,425	7,200	2,330	4,020	1,835	4,000	8,775	32,600
7/10/2018	21,900	3,050	6,450	7,300	2,300	4,030	1,865	3,990	8,900	33,400

7/11/2018	22,325	2,990	6,350	7,175	2,270	4,280	1,900	4,070	8,800	32,800
7/12/2018	22,825	2,970	6,450	7,025	2,200	4,200	1,870	4,230	8,825	32,000
7/13/2018	23,025	2,970	6,600	7,250	2,410	4,500	1,860	4,170	8,875	33,050
7/16/2018	23,125	2,970	6,550	7,350	2,480	4,480	1,800	4,240	8,825	33,300
7/17/2018	22,725	2,870	6,325	7,425	2,440	4,350	1,760	4,380	8,675	32,800
7/18/2018	23,200	2,850	6,400	7,375	2,500	4,350	1,865	4,330	8,650	33,000
7/19/2018	23,200	2,890	6,375	7,375	2,350	4,330	1,870	4,400	8,600	32,975
7/20/2018	23,100	2,980	6,350	7,250	2,250	4,270	1,825	4,260	8,600	32,300
7/23/2018	23,350	3,040	6,400	7,300	2,310	4,260	1,800	4,310	8,675	33,000
7/24/2018	23,525	3,010	6,525	7,350	2,360	4,260	1,800	4,240	8,675	32,900
7/25/2018	23,575	2,990	6,475	7,300	2,330	4,310	1,880	4,320	8,550	34,550
7/26/2018	23,325	3,040	6,550	7,575	2,350	4,350	1,850	4,430	8,650	34,925
7/27/2018	23,225	3,090	6,575	7,450	2,410	4,530	1,965	4,600	8,600	35,400
7/30/2018	23,275	3,080	6,725	7,500	2,380	4,660	2,090	4,360	8,775	35,925
7/31/2018	23,275	3,070	6,650	7,400	2,360	4,370	1,905	4,480	8,725	35,250
8/1/2018	23,475	3,190	7,000	7,825	2,460	4,540	1,980	4,540	8,725	35,975
8/2/2018	23,450	3,250	7,050	7,800	2,410	4,370	1,935	4,490	8,775	35,525
8/3/2018	23,450	3,330	7,200	7,900	2,450	4,150	1,940	4,500	8,775	34,900
8/6/2018	23,800	3,410	7,300	8,200	2,660	4,220	1,960	4,580	9,000	35,800
8/7/2018	23,800	3,350	7,200	8,100	2,660	4,390	1,980	4,780	9,000	35,975
8/8/2018	23,925	3,330	7,325	8,100	2,620	4,350	1,990	4,810	8,950	36,025
8/9/2018	24,100	3,330	7,275	7,950	2,760	4,380	1,935	4,800	8,975	36,600
8/10/2018	23,875	3,390	7,350	7,975	2,810	4,290	1,910	4,890	8,975	36,275
8/13/2018	23,325	3,140	6,925	7,400	2,630	4,080	1,830	4,850	8,550	34,500
8/14/2018	23,500	3,130	6,725	7,300	2,530	3,950	1,800	4,160	8,200	34,050
8/15/2018	23,450	3,210	6,800	7,375	2,580	3,980	1,855	4,030	8,550	34,000
8/16/2018	23,375	3,050	6,700	7,075	2,490	3,790	1,780	4,120	8,650	33,400
8/17/2018	23,375	3,050	6,700	7,075	2,490	3,790	1,780	4,120	8,650	33,400
8/20/2018	23,900	3,180	6,725	7,275	2,510	4,110	1,835	4,260	8,600	34,975
8/21/2018	23,875	3,150	6,700	7,375	2,560	4,020	1,880	4,120	8,800	34,675
8/22/2018	23,875	3,150	6,700	7,375	2,560	4,020	1,880	4,120	8,800	34,675
8/23/2018	24,575	3,270	6,850	7,550	2,640	4,020	1,940	4,040	8,925	35,000
8/24/2018	25,075	3,270	6,775	7,425	2,630	3,900	1,910	4,070	8,875	34,200
8/27/2018	24,775	3,380	6,975	7,675	2,770	3,900	1,895	4,060	8,800	34,925
8/28/2018	24,975	3,330	7,000	7,875	2,810	3,910	1,910	4,140	8,625	34,400
8/29/2018	24,800	3,290	7,000	7,850	2,860	3,910	1,910	4,150	8,825	35,000
8/30/2018	25,075	3,190	6,850	7,625	2,860	3,890	1,895	4,160	8,800	34,450

8/31/2018	24,800	3,180	6,900	7,800	2,750	3,800	1,865	4,050	8,675	34,400
9/3/2018	24,775	3,170	6,700	7,850	2,750	3,560	1,855	4,100	8,700	34,100
9/4/2018	24,750	3,110	6,575	7,500	2,650	3,490	1,805	4,000	8,650	33,500
9/5/2018	24,000	2,930	6,325	7,075	2,480	3,190	1,700	3,790	8,400	32,450
9/6/2018	24,700	2,960	6,550	7,275	2,540	3,250	1,725	3,810	8,650	33,000
9/7/2018	24,850	3,030	6,625	7,350	2,620	3,220	1,730	3,770	8,850	33,125
9/10/2018	24,750	2,970	6,575	7,275	2,560	3,350	1,735	3,720	8,900	32,700
9/11/2018	24,750	2,970	6,575	7,275	2,560	3,350	1,735	3,720	8,900	32,700
9/12/2018	23,900	2,910	6,375	7,125	2,530	3,330	1,760	3,940	8,875	32,125
9/13/2018	24,000	3,000	6,575	7,350	2,600	3,450	1,735	3,970	8,850	32,200
9/14/2018	23,975	3,070	6,750	7,525	2,680	3,390	1,740	3,970	8,925	32,875
9/17/2018	23,925	2,970	6,450	7,225	2,590	3,250	1,715	3,930	8,825	32,150
9/18/2018	24,000	2,940	6,375	7,225	2,590	3,200	1,750	4,130	8,775	31,975
9/19/2018	24,000	3,000	6,400	7,175	2,590	3,330	1,740	4,140	8,725	32,300
9/20/2018	23,950	3,090	6,675	7,300	2,620	3,500	1,805	4,160	8,850	32,800
9/21/2018	23,700	3,120	6,850	7,650	2,680	3,660	1,880	4,170	8,950	33,300
9/24/2018	23,925	3,010	6,750	7,375	2,640	3,590	1,820	4,120	8,800	32,450
9/25/2018	23,925	3,030	6,625	7,350	2,650	3,640	1,815	4,130	8,850	32,150
9/26/2018	24,200	2,990	6,600	7,325	2,640	3,690	1,815	4,110	8,600	31,125
9/27/2018	24,000	3,070	6,625	7,350	2,650	3,700	1,825	4,160	8,825	32,175
9/28/2018	24,150	3,150	6,725	7,400	2,630	3,710	1,835	4,320	8,825	33,000
10/1/2018	23,950	3,180	6,700	7,500	2,630	3,600	1,840	4,400	8,825	32,775
10/2/2018	23,950	3,110	6,450	7,275	2,540	3,450	1,845	4,590	8,950	32,425
10/3/2018	23,925	3,100	6,500	7,250	2,540	3,400	1,865	4,660	8,825	32,500
10/4/2018	23,600	3,000	6,225	6,900	2,400	3,420	1,825	4,710	8,825	31,925
10/5/2018	23,050	2,980	6,275	6,875	2,410	3,540	1,810	4,740	8,800	32,600
10/8/2018	23,450	2,970	6,200	6,825	2,410	3,450	1,750	4,690	8,825	32,075
10/9/2018	23,750	3,020	6,350	6,825	2,410	3,400	1,730	4,500	8,875	32,000
10/10/2018	23,375	3,010	6,475	6,950	2,420	3,530	1,780	4,540	8,625	32,300
10/11/2018	22,725	2,910	6,275	6,725	2,300	3,360	1,720	4,470	8,575	31,400
10/12/2018	23,250	2,950	6,400	6,925	2,340	3,360	1,710	4,560	8,725	31,675
10/15/2018	23,850	3,000	6,375	7,050	2,340	3,250	1,675	4,440	8,725	31,450
10/16/2018	24,100	3,000	6,500	7,250	2,340	3,140	1,750	4,390	8,750	31,750
10/17/2018	24,025	3,070	6,575	7,325	2,420	3,260	1,760	4,500	8,800	32,000
10/18/2018	23,600	3,090	6,500	7,200	2,420	3,200	1,730	4,490	8,850	31,925
10/19/2018	23,375	3,020	6,450	7,175	2,370	3,190	1,700	4,540	8,775	32,400
10/22/2018	23,150	3,050	6,450	7,175	2,340	3,210	1,730	4,610	8,750	32,375

10/23/2018	22,950	3,020	6,425	7,125	2,300	3,150	1,700	4,510	8,750	32,125
10/24/2018	22,650	2,950	6,325	7,050	2,170	3,070	1,670	4,300	8,750	31,800
10/25/2018	22,900	3,000	6,475	7,075	2,180	3,030	1,650	4,490	8,775	32,050
10/26/2018	23,600	2,990	6,450	7,100	2,140	2,990	1,725	4,250	8,775	33,400
10/29/2018	23,125	2,950	6,400	7,075	2,050	2,880	1,665	4,190	8,800	32,500
10/30/2018	23,500	3,030	6,525	7,175	2,100	2,830	1,650	4,190	8,650	32,700
10/31/2018	23,650	3,150	6,850	7,325	2,120	2,920	1,650	4,250	8,925	33,500
11/1/2018	23,800	3,200	7,225	7,425	2,240	3,060	1,645	4,230	8,925	33,475
11/2/2018	24,000	3,280	7,425	7,775	2,350	3,240	1,585	4,200	8,925	32,875
11/5/2018	24,175	3,270	7,375	7,600	2,330	3,160	1,575	4,390	8,975	32,650
11/6/2018	24,400	3,330	7,350	7,750	2,340	3,160	1,630	4,450	8,900	33,500
11/7/2018	24,100	3,370	7,350	7,800	2,380	3,210	1,595	4,470	8,725	33,975
11/8/2018	24,000	3,450	7,500	7,900	2,410	3,290	1,610	4,470	8,750	34,750
11/9/2018	24,000	3,340	7,225	8,000	2,350	3,300	1,580	4,330	8,575	34,900
11/12/2018	23,700	3,280	6,975	7,600	2,220	3,250	1,510	4,420	8,425	33,075
11/13/2018	24,075	3,350	7,150	7,900	2,240	3,250	1,515	4,650	8,550	34,900
11/14/2018	24,050	3,350	7,125	8,025	2,250	3,100	1,565	4,880	8,700	34,500
11/15/2018	24,175	3,410	7,400	8,250	2,300	3,150	1,555	4,700	8,725	35,075
11/16/2018	24,825	3,490	7,450	8,300	2,400	3,280	1,545	4,740	8,775	34,800
11/19/2018	25,100	3,520	7,475	8,400	2,380	3,140	1,485	4,660	8,775	34,400
11/20/2018	25,100	3,520	7,475	8,400	2,380	3,140	1,485	4,660	8,775	34,400
11/21/2018	24,800	3,430	7,275	8,250	2,380	2,950	1,310	4,350	8,850	31,950
11/22/2018	25,100	3,550	7,325	8,400	2,530	2,880	1,285	4,220	8,950	31,800
11/23/2018	25,100	3,480	7,300	8,425	2,530	2,890	1,295	4,310	8,925	31,850
11/26/2018	25,225	3,540	7,375	8,425	2,590	2,820	1,275	3,940	8,900	30,675
11/27/2018	25,500	3,600	7,450	8,650	2,640	2,750	1,220	3,870	8,950	29,950
11/28/2018	25,450	3,650	7,400	8,550	2,530	2,760	1,255	3,990	9,000	29,000
11/29/2018	26,200	3,710	7,650	8,775	2,710	2,980	1,280	4,140	9,700	29,350
11/30/2018	26,050	3,620	7,400	8,500	2,670	3,030	1,285	4,020	9,850	27,500
12/3/2018	25,800	3,690	7,600	8,750	2,790	3,330	1,305	3,960	9,625	28,600
12/4/2018	26,200	3,710	7,650	8,800	2,750	3,260	1,300	4,000	9,750	29,825
12/5/2018	26,150	3,650	7,575	8,750	2,720	3,180	1,285	3,950	9,750	29,725
12/6/2018	26,300	3,650	7,475	8,650	2,740	3,070	1,295	4,080	9,700	29,000
12/7/2018	25,950	3,620	7,500	8,575	2,740	3,080	1,300	3,990	9,700	29,375
12/10/2018	25,900	3,610	7,425	8,575	2,680	3,090	1,310	4,020	9,725	29,750
12/11/2018	25,800	3,620	7,450	8,450	2,680	3,070	1,285	4,280	9,700	29,075
12/12/2018	25,825	3,620	7,475	8,450	2,720	3,040	1,255	4,310	9,675	29,300

12/13/2018	25,825	3,680	7,700	8,550	2,730	3,170	1,280	4,500	9,825	29,300
12/14/2018	25,825	3,680	7,575	8,600	2,650	3,080	1,285	4,460	10,100	29,425
12/17/2018	25,825	3,600	7,400	8,575	2,570	3,030	1,280	4,390	10,125	28,700
12/18/2018	25,325	3,630	7,350	8,625	2,610	3,040	1,240	4,230	10,050	29,125
12/19/2018	26,150	3,670	7,425	8,700	2,660	3,170	1,245	4,220	10,200	28,650
12/20/2018	25,575	3,650	7,300	8,675	2,600	3,170	1,255	4,270	10,475	28,825
12/21/2018	25,850	3,620	7,225	8,675	2,580	3,150	1,250	4,230	10,525	27,950
12/24/2018	25,850	3,620	7,225	8,675	2,580	3,150	1,250	4,230	10,525	27,950
12/25/2018	25,850	3,620	7,225	8,675	2,580	3,150	1,250	4,230	10,525	27,950
12/26/2018	26,125	3,600	7,225	8,700	2,540	3,110	1,220	4,290	10,250	27,150
12/27/2018	25,975	3,660	7,275	8,800	2,570	3,230	1,240	4,290	10,700	27,600
12/28/2018	26,000	3,660	7,375	8,800	2,540	3,260	1,215	4,300	10,450	27,350
12/31/2018	26,000	3,660	7,375	8,800	2,540	3,260	1,215	4,300	10,450	27,350
1/1/2019	26,000	3,660	7,375	8,800	2,540	3,260	1,215	4,300	10,450	27,350
1/2/2019	26,200	3,610	7,325	8,725	2,550	3,160	1,225	4,240	10,400	27,325
1/3/2019	25,900	3,620	7,175	8,725	2,530	3,070	1,230	4,160	10,575	27,575
1/4/2019	26,025	3,660	7,450	8,725	2,580	3,130	1,390	4,380	10,600	29,000
1/7/2019	26,225	3,660	7,425	8,875	2,640	3,260	1,390	4,400	10,350	27,975
1/8/2019	26,200	3,680	7,350	8,900	2,730	3,250	1,410	4,370	10,175	27,500
1/9/2019	26,275	3,720	7,575	8,850	2,680	3,270	1,395	4,330	10,250	28,100
1/10/2019	26,275	3,750	7,700	8,850	2,680	3,440	1,405	4,290	10,150	28,225
1/11/2019	26,250	3,730	7,700	8,925	2,730	3,440	1,405	4,330	10,150	27,800
1/14/2019	26,000	3,790	7,700	8,875	2,740	3,390	1,410	4,390	10,000	26,000
1/15/2019	26,300	3,780	7,800	9,000	2,760	3,490	1,460	4,380	10,100	25,600
1/16/2019	26,425	3,780	7,800	9,250	2,750	3,700	1,460	4,380	10,025	26,050
1/17/2019	26,650	3,810	7,875	9,250	2,760	3,640	1,460	4,450	10,000	26,850
1/18/2019	27,125	3,820	7,875	9,400	2,760	3,700	1,485	4,470	10,150	26,925
1/21/2019	27,725	3,800	7,800	9,225	2,770	3,740	1,470	4,470	10,200	26,850
1/22/2019	28,000	3,770	7,750	9,250	2,770	3,650	1,410	4,420	10,450	26,100
1/23/2019	27,500	3,770	7,475	9,050	2,720	3,570	1,380	4,390	10,475	26,600
1/24/2019	27,300	3,790	7,475	9,000	2,680	3,530	1,380	4,390	10,850	26,625
1/25/2019	27,500	3,780	7,375	9,100	2,700	3,640	1,395	4,370	10,750	26,425
1/28/2019	27,475	3,780	7,175	9,100	2,650	3,550	1,390	4,350	10,750	26,300
1/29/2019	27,700	3,690	7,125	9,025	2,630	3,540	1,340	4,380	10,725	25,650
1/30/2019	27,600	3,750	7,250	9,000	2,670	3,720	1,350	4,300	10,775	25,900
1/31/2019	28,175	3,850	7,450	9,075	2,740	3,850	1,390	4,310	10,775	25,725
2/1/2019	28,175	3,920	7,600	9,250	2,790	3,780	1,375	4,320	10,750	26,100

2/4/2019	27,500	3,900	7,350	9,125	2,760	3,810	1,360	4,240	10,650	26,250
2/5/2019	27,500	3,900	7,350	9,125	2,760	3,810	1,360	4,240	10,650	26,250
2/6/2019	27,675	3,920	7,475	9,100	2,740	3,980	1,365	4,290	10,600	26,550
2/7/2019	27,650	3,930	7,550	9,075	2,720	3,860	1,345	4,310	10,525	26,500
2/8/2019	27,600	3,890	7,575	8,975	2,700	3,740	1,305	4,300	10,600	25,725
2/11/2019	27,475	3,870	7,625	9,050	2,650	3,610	1,260	4,260	10,500	25,375
2/12/2019	27,300	3,850	7,425	8,900	2,600	3,580	1,275	4,190	10,450	24,825
2/13/2019	27,100	3,790	7,250	8,650	2,590	3,660	1,260	4,120	10,425	25,250
2/14/2019	26,900	3,800	7,175	8,775	2,530	3,650	1,240	4,050	10,500	25,550
2/15/2019	26,800	3,770	7,175	8,775	2,480	3,500	1,220	3,980	10,425	25,025
2/18/2019	27,400	3,840	7,275	8,975	2,560	3,650	1,245	3,980	10,550	26,150
2/19/2019	26,900	3,910	7,200	8,875	2,520	3,680	1,295	4,200	10,475	26,050
2/20/2019	27,500	3,890	7,100	8,825	2,500	3,740	1,345	4,160	10,500	26,000
2/21/2019	27,525	3,910	7,325	8,925	2,540	3,710	1,415	4,200	10,475	26,500
2/22/2019	27,450	3,900	7,100	8,725	2,500	3,760	1,410	4,130	10,400	27,950
2/25/2019	27,450	3,960	7,250	8,800	2,530	3,840	1,405	4,130	10,250	27,250
2/26/2019	27,775	3,940	7,275	8,850	2,520	3,850	1,350	4,150	10,400	27,800
2/27/2019	27,825	3,870	7,200	8,850	2,500	3,770	1,375	4,100	10,425	27,600
2/28/2019	27,575	3,850	7,125	8,800	2,430	3,740	1,310	3,980	10,225	26,500
3/1/2019	27,700	3,870	7,175	8,975	2,350	3,880	1,310	4,040	10,300	26,500
3/4/2019	27,675	3,880	7,100	8,950	2,390	3,870	1,410	4,060	10,350	27,500
3/5/2019	27,475	3,860	6,950	8,800	2,350	3,870	1,400	3,970	10,275	26,875
3/6/2019	27,450	3,900	7,075	8,800	2,350	3,890	1,360	4,040	10,250	26,600
3/7/2019	27,450	3,900	7,075	8,800	2,350	3,890	1,360	4,040	10,250	26,600
3/8/2019	27,200	3,850	6,900	8,675	2,270	3,650	1,390	4,000	10,250	26,100
3/11/2019	27,525	3,860	6,850	8,675	2,270	3,600	1,450	4,020	10,300	26,900
3/12/2019	27,500	3,840	6,725	8,675	2,270	3,580	1,390	3,990	10,225	26,150
3/13/2019	27,500	3,790	6,700	8,600	2,290	3,610	1,440	4,020	10,350	26,275
3/14/2019	27,400	3,840	6,900	8,825	2,410	3,590	1,460	4,020	10,375	26,125
3/15/2019	27,700	3,950	7,100	9,075	2,440	3,650	1,435	4,050	10,425	26,475
3/18/2019	27,750	4,000	7,100	9,350	2,410	3,530	1,430	4,050	10,375	26,825
3/19/2019	27,450	3,980	7,375	9,350	2,440	3,550	1,435	4,020	10,300	27,500
3/20/2019	27,350	3,990	7,400	9,300	2,400	3,570	1,430	4,020	10,375	27,800
3/21/2019	27,375	3,990	7,475	9,525	2,520	3,600	1,420	4,040	10,375	27,700
3/22/2019	27,425	4,050	7,450	9,600	2,530	3,570	1,415	4,080	10,325	27,950
3/25/2019	27,275	4,010	7,175	9,200	2,410	3,410	1,345	4,140	9,400	27,100
3/26/2019	27,350	4,060	7,300	9,375	2,480	3,420	1,360	4,240	9,575	27,225

3/27/2019	27,425	4,050	7,225	9,350	2,440	3,380	1,350	4,120	9,150	27,250
3/28/2019	27,350	4,070	7,375	9,425	2,490	3,340	1,340	4,160	9,275	27,000
3/29/2019	27,550	4,110	7,475	9,400	2,450	3,390	1,340	4,210	9,325	27,000
4/1/2019	27,500	4,150	7,500	9,450	2,380	3,550	1,350	4,200	9,250	27,325
4/2/2019	27,500	4,150	7,425	9,475	2,350	3,490	1,325	4,170	9,000	26,700
4/3/2019	27,500	4,150	7,425	9,475	2,350	3,490	1,325	4,170	9,000	26,700
4/4/2019	27,700	4,220	7,675	9,700	2,370	3,460	1,275	4,040	9,050	26,500
4/5/2019	27,650	4,270	7,550	9,725	2,390	3,460	1,260	4,020	9,075	26,375
4/8/2019	27,400	4,250	7,500	9,475	2,330	3,370	1,260	4,040	9,025	25,900
4/9/2019	27,675	4,300	7,675	9,675	2,340	3,330	1,295	4,070	9,250	26,400
4/10/2019	27,625	4,310	7,550	9,700	2,400	3,250	1,300	4,010	9,300	26,000
4/11/2019	27,400	4,300	7,400	9,625	2,350	3,370	1,295	4,010	9,050	25,450
4/12/2019	27,500	4,310	7,325	9,675	2,400	3,360	1,300	4,030	9,050	25,450
4/15/2019	27,525	4,350	7,350	9,650	2,440	3,370	1,285	3,970	9,050	25,950
4/16/2019	27,475	4,340	7,625	9,700	2,580	3,280	1,305	3,980	9,075	26,425
4/17/2019	27,475	4,340	7,625	9,700	2,580	3,280	1,305	3,980	9,075	26,425
4/18/2019	28,125	4,460	7,800	9,850	2,620	3,180	1,295	3,950	9,100	26,075
4/19/2019	28,125	4,460	7,800	9,850	2,620	3,180	1,295	3,950	9,100	26,075
4/22/2019	28,125	4,440	7,750	9,675	2,600	3,150	1,270	4,050	9,025	26,075
4/23/2019	28,150	4,430	7,675	9,800	2,630	3,200	1,305	4,050	9,200	27,200
4/24/2019	28,150	4,400	7,675	9,800	2,550	3,110	1,305	4,130	9,200	27,550
4/25/2019	27,975	4,330	7,650	9,600	2,450	3,000	1,290	4,030	9,075	27,675
4/26/2019	28,100	4,330	7,725	9,650	2,510	3,050	1,290	4,020	9,175	27,600
4/29/2019	28,425	4,340	7,775	9,625	2,530	3,070	1,315	3,950	9,300	26,950
4/30/2019	28,750	4,370	7,725	9,600	2,530	3,050	1,305	3,960	9,725	27,175
5/1/2019	28,750	4,370	7,725	9,600	2,530	3,050	1,305	3,960	9,725	27,175
5/2/2019	28,425	4,370	7,700	9,425	2,490	2,970	1,345	3,940	9,700	26,825
5/3/2019	28,375	4,380	7,650	9,250	2,480	2,940	1,335	3,790	9,625	26,625
5/6/2019	28,100	4,230	7,525	8,875	2,380	2,900	1,315	3,790	9,600	26,925
5/7/2019	28,300	4,250	7,650	8,950	2,460	2,950	1,310	3,400	9,700	27,150
5/8/2019	28,500	4,220	7,525	8,750	2,420	2,910	1,295	3,190	9,700	27,150
5/9/2019	28,150	4,120	7,500	8,575	2,350	2,860	1,280	3,110	9,675	26,100
5/10/2019	28,050	4,120	7,475	8,600	2,390	2,850	1,265	3,080	9,825	26,250
5/13/2019	28,050	4,100	7,525	8,500	2,310	2,750	1,250	2,940	9,625	25,525
5/14/2019	27,475	4,050	7,450	8,450	2,310	2,690	1,235	3,050	9,650	25,525
5/15/2019	27,300	3,890	7,425	8,225	2,280	2,620	1,235	2,900	9,525	25,350
5/16/2019	26,400	3,860	7,350	8,175	2,250	2,550	1,160	2,810	9,500	24,850

5/17/2019	25,900	3,790	7,075	8,100	2,240	2,470	1,175	2,750	9,300	24,825
5/20/2019	26,900	3,750	7,225	8,425	2,330	2,470	1,175	2,810	9,375	24,500
5/21/2019	27,300	3,750	7,250	8,600	2,340	2,540	1,235	2,810	9,625	24,725
5/22/2019	27,300	3,770	7,300	8,300	2,330	2,600	1,235	2,850	9,500	24,400
5/23/2019	28,025	3,850	7,575	8,500	2,370	2,620	1,280	2,880	9,725	25,550
5/24/2019	28,050	3,850	7,700	8,650	2,380	2,690	1,260	2,880	9,700	25,100
5/27/2019	28,425	3,920	7,725	8,700	2,460	2,750	1,265	2,880	9,775	24,850
5/28/2019	28,675	3,810	7,375	8,150	2,400	2,700	1,270	3,000	9,725	24,300
5/29/2019	28,700	3,940	7,550	8,150	2,420	2,680	1,270	3,000	9,725	24,875
5/30/2019	28,700	3,940	7,550	8,150	2,420	2,680	1,270	3,000	9,725	24,875
5/31/2019	29,100	4,100	7,675	8,400	2,470	2,700	1,295	3,060	9,800	25,350
6/3/2019	29,100	4,100	7,675	8,400	2,470	2,700	1,295	3,060	9,800	25,350
6/4/2019	29,100	4,100	7,675	8,400	2,470	2,700	1,295	3,060	9,800	25,350
6/5/2019	29,100	4,100	7,675	8,400	2,470	2,700	1,295	3,060	9,800	25,350
6/6/2019	29,100	4,100	7,675	8,400	2,470	2,700	1,295	3,060	9,800	25,350
6/7/2019	29,100	4,100	7,675	8,400	2,470	2,700	1,295	3,060	9,800	25,350
6/10/2019	29,400	4,230	7,850	8,675	2,580	2,800	1,285	2,940	9,800	26,550
6/11/2019	29,550	4,230	7,875	8,575	2,560	2,930	1,280	2,930	10,150	26,700
6/12/2019	29,225	4,210	7,875	8,600	2,580	2,940	1,285	2,880	10,150	26,775
6/13/2019	29,025	4,200	7,825	8,650	2,650	2,880	1,275	2,840	10,000	26,750
6/14/2019	29,000	4,230	7,825	8,500	2,650	2,870	1,235	2,830	9,975	26,900
6/17/2019	28,975	4,200	7,800	8,450	2,580	2,770	1,230	2,820	9,950	27,025
6/18/2019	29,500	4,260	7,850	8,725	2,660	2,750	1,245	2,880	10,125	27,200
6/19/2019	29,700	4,290	7,975	8,900	2,740	2,930	1,275	2,950	10,125	27,500
6/20/2019	29,550	4,310	7,950	8,800	2,710	2,940	1,265	2,920	10,150	27,500
6/21/2019	29,400	4,360	7,975	8,850	2,670	2,880	1,225	2,900	10,025	27,450
6/24/2019	29,375	4,310	7,975	8,875	2,690	2,920	1,245	2,880	9,950	27,450
6/25/2019	29,550	4,330	7,950	8,925	2,660	3,080	1,330	3,060	10,000	27,800
6/26/2019	29,325	4,360	7,950	8,850	2,600	3,050	1,360	2,990	10,050	27,800
6/27/2019	29,675	4,380	8,000	8,900	2,450	3,150	1,385	2,960	10,150	28,075
6/28/2019	29,975	4,360	8,025	9,200	2,460	3,120	1,360	2,960	10,150	28,200
7/1/2019	29,950	4,420	8,000	9,375	2,520	3,160	1,440	3,060	10,125	28,825
7/2/2019	30,000	4,410	8,025	9,350	2,510	3,080	1,420	3,020	10,125	28,475
7/3/2019	30,000	4,400	8,025	9,325	2,450	2,930	1,360	3,000	10,125	28,250
7/4/2019	29,950	4,390	8,025	9,375	2,450	2,940	1,420	3,050	10,100	27,700
7/5/2019	29,850	4,400	7,825	9,200	2,430	2,880	1,415	3,050	10,100	28,025
7/8/2019	29,400	4,400	7,875	8,975	2,420	2,910	1,380	2,980	10,025	27,300

7/9/2019	30,000	4,410	7,900	9,150	2,420	2,970	1,335	2,930	10,100	27,700
7/10/2019	30,000	4,470	7,950	9,150	2,450	2,920	1,345	2,940	10,125	28,025
7/11/2019	30,125	4,510	8,000	9,250	2,460	3,050	1,335	2,910	10,250	28,000
7/12/2019	30,050	4,510	8,075	9,200	2,430	3,000	1,280	2,840	10,275	27,850
7/15/2019	30,525	4,530	8,150	9,175	2,470	3,000	1,275	2,840	10,375	28,025
7/16/2019	30,425	4,550	8,075	9,075	2,440	3,060	1,285	2,840	10,425	27,800
7/17/2019	30,750	4,520	7,975	9,050	2,450	3,130	1,280	2,820	10,625	28,000
7/18/2019	30,725	4,450	7,850	8,875	2,420	3,180	1,300	2,870	10,725	27,275
7/19/2019	31,000	4,480	7,875	8,900	2,430	3,140	1,295	2,880	10,850	27,275
7/22/2019	31,450	4,500	7,775	8,850	2,440	3,020	1,285	2,840	10,650	26,600
7/23/2019	31,175	4,490	7,700	8,625	2,470	3,050	1,275	2,830	10,725	27,000
7/24/2019	31,250	4,450	7,700	8,425	2,420	3,050	1,255	2,780	10,575	26,975
7/25/2019	31,250	4,460	7,800	8,500	2,420	3,000	1,250	2,790	10,700	26,950
7/26/2019	30,975	4,440	7,750	8,425	2,400	2,920	1,230	2,750	10,575	26,525
7/29/2019	30,950	4,460	7,800	8,350	2,390	2,910	1,255	2,700	10,550	25,575
7/30/2019	31,100	4,500	7,950	8,350	2,450	3,010	1,295	2,730	10,625	25,500
7/31/2019	30,950	4,480	7,975	8,475	2,460	3,030	1,270	2,740	10,700	24,925
8/1/2019	31,050	4,450	7,775	8,250	2,400	2,940	1,225	2,730	10,700	24,450
8/2/2019	30,825	4,450	7,675	8,100	2,320	2,890	1,175	2,690	10,850	24,575
8/5/2019	30,000	4,270	7,425	7,925	2,250	2,810	1,120	2,620	10,875	23,875
8/6/2019	29,400	4,100	7,250	7,825	2,220	2,950	1,085	2,550	10,775	22,750
8/7/2019	30,050	4,250	7,350	7,875	2,300	2,990	1,105	2,560	11,225	22,800
8/8/2019	30,025	4,290	7,500	8,125	2,330	3,110	1,100	2,570	11,175	23,200
8/9/2019	30,325	4,330	7,450	7,925	2,330	3,250	1,095	2,540	11,300	23,175
8/12/2019	30,200	4,300	7,400	7,925	2,300	3,240	1,070	2,480	11,275	21,700
8/13/2019	30,075	4,280	7,350	7,900	2,290	3,340	1,035	2,420	11,250	21,225
8/14/2019	30,050	4,330	7,500	8,100	2,290	3,410	1,050	2,430	11,350	21,575
8/15/2019	30,000	4,250	7,400	8,025	2,270	3,440	1,025	2,380	11,500	20,750
8/16/2019	29,800	4,210	7,375	7,925	2,310	3,550	1,030	2,440	11,625	20,500
8/19/2019	30,075	4,180	7,350	7,875	2,300	3,480	1,045	2,450	11,525	20,700
8/20/2019	29,925	4,100	7,375	7,750	2,230	3,410	1,050	2,460	11,900	20,550
8/21/2019	29,875	4,050	7,225	7,575	2,170	3,440	1,030	2,420	11,800	20,025
8/22/2019	30,000	4,070	7,225	7,600	2,180	3,340	1,020	2,420	11,825	19,975
8/23/2019	29,975	4,080	7,175	7,625	2,190	3,300	1,085	2,490	11,775	20,500
8/26/2019	29,950	4,070	7,050	7,500	2,150	3,130	1,120	2,410	11,750	20,125
8/27/2019	30,025	4,200	7,025	7,575	2,100	3,200	1,130	2,420	11,750	20,700
8/28/2019	29,975	4,190	7,050	7,600	2,080	3,330	1,105	2,410	11,825	20,900

8/29/2019	30,025	4,200	7,075	7,525	2,030	3,420	1,100	2,410	12,000	20,675
8/30/2019	30,500	4,270	7,250	7,700	2,000	3,530	1,125	2,470	12,050	20,925
9/2/2019	30,000	4,220	7,175	7,625	2,010	3,970	1,155	2,420	11,975	20,600
9/3/2019	30,275	4,150	6,900	7,450	2,020	3,830	1,190	2,440	12,000	20,400
9/4/2019	30,100	4,160	6,925	7,425	2,060	3,870	1,235	2,440	12,000	20,450
9/5/2019	30,200	4,220	6,975	7,525	2,100	3,730	1,260	2,470	12,000	21,025
9/6/2019	30,125	4,270	7,050	7,600	2,100	3,720	1,335	2,600	11,900	21,575
9/9/2019	30,175	4,170	6,975	7,550	2,080	3,810	1,415	2,700	11,850	23,300
9/10/2019	30,275	4,190	7,050	7,750	2,080	3,760	1,410	2,650	12,025	22,950
9/11/2019	30,500	4,250	7,150	8,000	2,180	3,870	1,470	2,690	11,950	23,500
9/12/2019	30,100	4,280	7,150	7,875	2,210	3,850	1,435	2,620	11,925	23,050
9/13/2019	30,150	4,310	7,200	7,850	2,190	3,680	1,375	2,560	11,600	22,775
9/16/2019	30,025	4,190	7,000	7,675	2,150	3,570	1,430	2,580	11,825	23,075
9/17/2019	30,150	4,250	6,975	7,750	2,210	3,590	1,435	2,570	11,950	22,850
9/18/2019	30,200	4,240	7,200	7,900	2,270	3,740	1,405	2,550	11,875	22,525
9/19/2019	30,150	4,220	7,100	7,775	2,260	3,690	1,370	2,460	11,900	21,750
9/20/2019	29,950	4,160	7,075	7,650	2,260	3,860	1,400	2,470	11,950	22,000
9/23/2019	30,125	4,180	7,000	7,575	2,250	3,820	1,370	2,400	11,875	22,100
9/24/2019	29,725	4,110	6,950	7,450	2,200	3,640	1,295	2,320	11,800	21,200
9/25/2019	29,675	4,080	6,900	7,475	2,200	3,580	1,310	2,300	11,800	21,125
9/26/2019	30,300	4,210	7,100	7,550	2,160	3,680	1,285	2,300	12,000	20,850
9/27/2019	30,350	4,180	6,975	7,425	2,080	3,550	1,315	2,300	11,950	20,475
9/30/2019	30,350	4,120	6,975	7,350	1,960	3,510	1,290	2,260	12,025	20,575
10/1/2019	30,200	4,070	6,900	7,275	1,980	3,380	1,320	2,280	11,925	20,550
10/2/2019	30,250	3,930	6,525	6,925	1,925	3,330	1,270	2,240	12,200	20,200
10/3/2019	30,200	3,810	6,400	6,900	1,890	3,590	1,270	2,240	12,200	20,200
10/4/2019	30,225	3,950	6,400	6,875	1,830	3,630	1,265	2,200	12,225	20,200
10/7/2019	30,350	3,900	6,350	6,675	1,815	3,620	1,250	2,150	12,275	20,400
10/8/2019	30,500	3,930	6,500	6,825	1,820	3,570	1,280	2,230	12,400	20,225
10/9/2019	30,350	3,960	6,425	6,750	1,795	3,590	1,270	2,240	12,000	20,050
10/10/2019	30,550	3,890	6,525	6,750	1,800	3,790	1,260	2,260	11,450	20,150
10/11/2019	30,625	3,920	6,550	6,975	1,890	3,830	1,295	2,270	11,625	20,325
10/14/2019	31,000	3,920	6,600	6,925	1,905	3,830	1,295	2,250	11,600	20,625
10/15/2019	30,875	3,940	6,575	7,150	1,905	3,680	1,330	2,260	11,375	20,900
10/16/2019	31,075	3,990	6,625	7,250	1,910	3,590	1,315	2,260	11,325	20,350
10/17/2019	30,575	4,050	6,700	7,375	1,905	3,510	1,320	2,220	11,550	20,375
10/18/2019	30,800	4,170	6,775	7,475	1,915	3,480	1,310	2,350	11,275	20,850

10/21/2019	31,100	4,120	6,800	7,375	1,920	3,440	1,365	2,350	11,400	20,775
10/22/2019	31,500	4,140	6,825	7,325	1,915	3,400	1,365	2,360	11,425	21,500
10/23/2019	31,375	4,180	7,075	7,550	1,930	3,470	1,355	2,450	11,500	21,625
10/24/2019	31,500	4,300	7,225	7,900	2,010	3,700	1,370	2,410	11,600	21,925
10/25/2019	31,000	4,230	7,000	7,825	2,010	3,590	1,350	2,350	11,425	21,200
10/28/2019	31,025	4,230	7,000	7,775	1,995	3,550	1,370	2,370	11,700	21,450
10/29/2019	31,100	4,230	7,100	7,725	1,935	3,700	1,335	2,350	11,600	21,325
10/30/2019	31,325	4,250	7,025	7,750	1,910	3,760	1,305	2,340	11,675	21,700
10/31/2019	31,450	4,210	7,025	7,675	1,860	3,710	1,310	2,250	11,625	21,675
11/1/2019	31,625	4,180	6,975	7,675	1,850	3,610	1,270	2,190	11,625	21,500
11/4/2019	31,375	4,160	6,875	7,625	1,810	3,600	1,280	2,300	11,350	21,575
11/5/2019	31,800	4,300	7,200	7,725	1,865	3,640	1,370	2,430	11,200	23,250
11/6/2019	31,475	4,160	6,975	7,500	1,860	3,610	1,390	2,460	11,225	22,850
11/7/2019	31,425	4,000	7,000	7,600	1,845	3,650	1,385	2,390	10,800	22,050
11/8/2019	31,400	3,990	7,100	7,675	1,890	3,560	1,415	2,580	11,275	23,275
11/11/2019	31,475	4,000	7,050	7,550	1,865	3,440	1,415	2,600	11,400	23,325
11/12/2019	31,325	4,000	7,025	7,600	1,875	3,400	1,425	2,620	11,400	23,800
11/13/2019	31,400	3,960	6,875	7,350	1,840	3,440	1,335	2,550	11,475	23,225
11/14/2019	31,350	3,940	6,875	7,300	1,835	3,360	1,300	2,460	11,400	22,425
11/15/2019	31,375	4,090	6,950	7,450	1,920	3,360	1,340	2,510	11,400	22,375
11/18/2019	31,400	4,120	6,975	7,425	1,955	3,290	1,330	2,510	11,400	21,900
11/19/2019	31,575	4,190	7,150	7,600	2,070	3,300	1,320	2,480	11,425	22,450
11/20/2019	31,750	4,220	7,100	7,650	2,080	3,230	1,335	2,450	11,425	22,675
11/21/2019	31,500	4,220	7,175	7,700	2,150	3,330	1,310	2,380	11,400	22,100
11/22/2019	31,525	4,210	7,075	7,650	2,100	3,300	1,320	2,430	11,425	22,750
11/25/2019	31,375	4,130	6,975	7,500	2,080	3,290	1,310	2,500	11,400	22,350
11/26/2019	31,425	4,150	6,925	7,500	2,160	3,240	1,315	2,630	11,375	21,375
11/27/2019	31,500	4,170	6,900	7,475	2,120	3,160	1,295	2,580	11,375	21,600
11/28/2019	31,250	4,050	6,775	7,400	2,050	3,010	1,245	2,470	11,325	20,900
11/29/2019	31,400	4,090	6,975	7,500	2,130	3,000	1,230	2,420	11,325	20,925
12/2/2019	32,125	4,210	7,100	7,550	2,170	3,110	1,315	2,530	11,400	21,725
12/3/2019	31,875	4,170	7,175	7,550	2,220	3,060	1,315	2,500	11,400	21,150
12/4/2019	31,825	4,130	7,075	7,425	2,200	3,060	1,360	2,460	11,100	20,700
12/5/2019	31,700	4,220	7,175	7,450	2,220	3,110	1,460	2,560	11,250	20,800
12/6/2019	31,975	4,170	7,175	7,575	2,170	3,170	1,425	2,550	11,425	21,325
12/9/2019	31,975	4,180	7,250	7,575	2,190	3,160	1,420	2,590	11,375	21,350
12/10/2019	31,825	4,170	7,375	7,600	2,140	3,200	1,485	2,550	11,375	21,300

12/11/2019	31,900	4,210	7,350	7,525	2,100	3,260	1,490	2,520	11,450	20,800
12/12/2019	31,700	4,250	7,300	7,525	2,110	3,360	1,475	2,470	11,375	20,450
12/13/2019	31,800	4,280	7,375	7,650	2,170	3,490	1,590	2,580	11,450	21,175
12/16/2019	31,800	4,330	7,350	7,700	2,160	3,610	1,640	2,690	11,350	22,000
12/17/2019	32,500	4,350	7,350	7,700	2,180	3,610	1,655	2,650	11,500	22,375
12/18/2019	33,775	4,400	7,525	7,825	2,190	3,450	1,610	2,670	11,500	21,800
12/19/2019	33,000	4,350	7,600	7,825	2,150	3,470	1,595	2,650	11,425	21,725
12/20/2019	33,300	4,360	7,700	7,800	2,130	3,570	1,540	2,600	11,525	21,250
12/23/2019	33,300	4,450	7,725	7,925	2,120	3,610	1,580	2,610	11,400	21,200
12/26/2019	33,400	4,410	7,800	7,950	2,130	3,580	1,585	2,640	11,275	21,625
12/27/2019	33,475	4,430	7,750	7,925	2,150	3,530	1,580	2,650	11,175	21,675
12/30/2019	33,425	4,400	7,675	7,850	2,120	3,640	1,555	2,660	11,150	21,525

Lampiran 4. Return Saham Konvensional dan Saham Syariah Peeriode Juli 2016-Desember 2019

1. Return Saham Konvensional

Tanggal	BBCA	BBRI	BMRI	BBNI	BBTN
7/1/2016	0.000000	0.000000	0.000000	0.000000	0.000000
7/11/2016	0.020794	0.055814	0.031915	0.029126	0.017751
7/12/2016	0.018519	0.013216	0.048969	0.023585	0.052326
7/13/2016	0.003636	0.004348	-0.027027	-0.004608	0.005525
7/14/2016	0.003623	-0.015152	-0.030303	-0.018519	0.000000
7/15/2016	0.010830	0.010989	0.007813	0.028302	0.008242
7/18/2016	-0.003571	-0.002174	0.000000	0.004587	-0.019074
7/19/2016	0.025090	0.028322	0.043928	0.022831	0.002778
7/20/2016	0.010490	0.006356	0.032178	0.008929	0.011080
7/21/2016	0.006920	-0.031579	-0.028777	-0.013274	0.013699
7/22/2016	-0.001718	-0.006522	-0.019753	-0.049327	0.002703
7/25/2016	-0.001721	-0.006565	0.000000	-0.023585	0.016173
7/26/2016	-0.010345	0.017621	-0.007557	0.009662	0.034483
7/27/2016	0.013937	0.004329	0.025381	0.028708	0.017949
7/28/2016	-0.008591	-0.017241	0.000000	0.004651	0.007557
7/29/2016	0.001733	0.010965	0.000000	-0.009259	-0.012500
8/1/2016	0.029412	0.017354	0.044554	0.032710	0.037975
8/2/2016	0.008403	0.002132	0.009479	-0.009050	-0.009756
8/3/2016	-0.001667	-0.008511	-0.021127	-0.009132	-0.029557
8/4/2016	0.001669	0.012876	0.011990	0.004608	-0.025381
8/5/2016	0.006667	0.014831	0.080569	0.036697	-0.013021
8/8/2016	0.000000	0.014614	0.021930	0.035398	0.031662
8/9/2016	-0.006623	-0.012346	0.012876	-0.008547	0.000000
8/10/2016	-0.003333	0.000000	-0.021186	-0.017241	-0.005115
8/11/2016	0.000000	-0.008333	-0.032468	-0.013158	-0.020566
8/12/2016	0.003344	0.004202	-0.008949	0.000000	-0.007874
8/15/2016	0.003333	0.004184	0.009029	0.004444	-0.002646
8/16/2016	0.004983	0.008333	0.013423	0.026549	0.018568
8/18/2016	0.004959	0.000000	0.008830	0.012931	0.002604
8/19/2016	0.006579	-0.008264	0.002188	-0.004255	0.007792
8/22/2016	0.000000	-0.012500	-0.004367	-0.012821	-0.002577
8/23/2016	-0.001634	-0.025316	-0.008772	0.004329	0.010336

8/24/2016	0.001637	0.008658	0.004425	0.004310	0.015345
8/25/2016	-0.003268	0.017167	0.004405	0.004292	0.017632
8/26/2016	-0.003279	-0.008439	0.000000	-0.004274	-0.014851
8/29/2016	-0.011513	-0.021277	-0.019737	-0.004292	-0.005025
8/30/2016	-0.001664	0.002174	0.008949	0.004310	-0.017677
8/31/2016	0.003333	0.010846	-0.004435	0.008584	0.033419
9/1/2016	-0.003322	0.004292	-0.013363	-0.004255	0.000000
9/2/2016	0.000000	-0.006410	0.009029	-0.004274	-0.012438
9/5/2016	0.000000	0.015054	0.000000	0.000000	-0.010076
9/6/2016	0.001667	0.006356	0.000000	0.004292	0.012723
9/7/2016	0.011647	0.008421	0.008949	-0.004274	0.010050
9/8/2016	-0.001645	0.000000	-0.006652	-0.004292	-0.004975
9/9/2016	-0.008237	-0.018789	-0.031250	-0.021552	0.000000
9/13/2016	-0.001661	-0.006383	-0.016129	-0.008811	0.000000
9/14/2016	-0.003328	0.002141	-0.007026	-0.022222	-0.040000
9/15/2016	0.008347	0.023504	0.035377	0.004545	0.002604
9/16/2016	0.000000	-0.004175	0.009112	-0.009050	0.012987
9/19/2016	0.009934	-0.006289	0.013544	-0.031963	0.002564
9/20/2016	-0.009836	0.012658	0.015590	0.028302	-0.028133
9/21/2016	0.004967	0.000000	-0.002193	0.004587	0.047368
9/22/2016	0.011532	0.006250	0.024176	0.018265	0.005025
9/23/2016	0.008143	0.000000	-0.012876	-0.008969	-0.002500
9/26/2016	-0.008078	-0.004141	0.013043	0.000000	-0.017544
9/27/2016	0.042345	0.006237	0.008584	0.013575	0.025510
9/28/2016	-0.035938	0.000000	-0.038298	0.004464	-0.017413
9/29/2016	0.019449	0.010331	0.011062	-0.004444	-0.005063
9/30/2016	-0.001590	-0.002045	-0.019694	-0.008929	-0.022901
10/3/2016	0.017516	0.006148	0.006696	0.013514	0.005208
10/4/2016	-0.001565	0.000000	-0.006652	-0.008889	0.025907
10/5/2016	-0.009404	0.002037	-0.017857	-0.008969	-0.025253
10/6/2016	-0.001582	0.008130	-0.004545	-0.022624	0.010363
10/7/2016	0.001585	-0.034274	-0.004566	-0.018519	-0.012821
10/10/2016	-0.006329	-0.010438	0.000000	0.000000	-0.002597
10/11/2016	0.006369	0.008439	-0.004587	-0.018868	-0.002604
10/12/2016	-0.012658	0.004184	0.013825	-0.004808	0.000000
10/13/2016	-0.009615	-0.002083	0.004545	0.038647	-0.007833
10/14/2016	0.022654	0.020877	0.027149	0.018605	0.026316

10/17/2016	0.006329	-0.006135	0.002203	0.004566	-0.005128
10/18/2016	0.009434	0.004115	0.002198	-0.018182	-0.010309
10/19/2016	-0.004673	-0.004098	-0.002193	0.000000	0.000000
10/20/2016	-0.014085	-0.002058	-0.006593	0.009259	0.000000
10/21/2016	0.003175	0.008247	-0.006637	-0.004587	-0.005208
10/24/2016	-0.007911	-0.002045	-0.002227	0.004608	0.015707
10/25/2016	-0.011164	-0.004098	-0.002232	0.004587	0.000000
10/26/2016	0.000000	-0.006173	-0.008949	-0.004566	-0.002577
10/27/2016	0.001613	0.010352	0.022573	0.013761	0.002584
10/28/2016	0.004831	0.000000	0.004415	0.000000	-0.010309
10/31/2016	-0.004808	0.000000	0.008791	0.009050	-0.005208
11/1/2016	-0.004831	0.002049	-0.004357	-0.008969	0.000000
11/2/2016	0.001618	0.014315	0.006565	0.000000	-0.010471
11/3/2016	-0.003231	-0.006048	-0.030435	-0.009050	-0.015873
11/4/2016	0.004862	0.006085	-0.004484	0.022831	0.005376
11/7/2016	-0.006452	0.004032	0.024775	-0.004464	0.002674
11/8/2016	0.006494	0.034137	0.017582	0.026906	0.024000
11/9/2016	-0.012903	-0.021359	-0.019438	-0.026201	-0.020833
11/10/2016	-0.004902	0.007937	0.006608	0.000000	0.002660
11/11/2016	-0.036125	-0.057087	-0.050328	-0.076233	-0.066313
11/14/2016	-0.020443	-0.070981	-0.048387	-0.004854	-0.056818
11/15/2016	0.012174	-0.008989	0.021792	-0.024390	-0.021084
11/16/2016	0.012027	0.043084	0.026066	0.045000	0.036923
11/17/2016	0.001698	0.000000	0.006928	0.000000	-0.002967
11/18/2016	-0.001695	0.000000	0.002294	0.000000	-0.011905
11/21/2016	0.000000	-0.004348	-0.020595	-0.004785	-0.003012
11/22/2016	-0.005093	0.002183	0.021028	0.009615	0.027190
11/23/2016	0.003413	0.002179	-0.002288	-0.023810	0.011765
11/24/2016	-0.010204	-0.017391	-0.073394	-0.024390	-0.040698
11/25/2016	-0.001718	-0.033186	0.004950	0.005000	-0.009091
11/28/2016	-0.010327	-0.041190	0.000000	0.009950	-0.021407
11/29/2016	-0.001739	0.007160	0.017241	0.004926	0.012500
11/30/2016	-0.003484	0.033175	0.016949	0.014706	0.018519
12/1/2016	0.013986	0.013761	0.000000	0.019324	-0.009091
12/2/2016	0.012069	0.022624	0.019048	0.004739	0.021407
12/5/2016	-0.001704	-0.015487	-0.004673	0.004717	-0.005988
12/6/2016	0.001706	0.017978	0.000000	0.009390	0.060241

12/7/2016	-0.001704	0.008830	0.004695	-0.004651	0.025568
12/8/2016	0.003413	0.006565	0.023364	0.014019	-0.016620
12/9/2016	0.000000	-0.002174	0.002283	0.009217	-0.025352
12/13/2016	0.000000	0.021786	-0.013667	0.000000	-0.008671
12/14/2016	0.003401	-0.019190	0.004619	0.000000	0.008746
12/15/2016	0.001695	-0.008696	-0.006897	-0.013699	-0.008671
12/16/2016	0.001692	-0.010965	-0.004630	-0.009259	-0.008746
12/19/2016	-0.005068	-0.002217	0.006977	0.014019	-0.011765
12/20/2016	0.003396	-0.002222	-0.002309	-0.004608	-0.014881
12/21/2016	-0.006768	-0.020045	-0.004630	-0.009259	-0.003021
12/22/2016	-0.008518	-0.011364	0.000000	-0.009346	-0.012121
12/23/2016	-0.006873	0.000000	0.002326	-0.009434	0.000000
12/27/2016	0.024221	0.011494	0.002320	0.000000	0.009202
12/28/2016	-0.005068	0.034091	0.032407	0.023810	0.060790
12/29/2016	0.042445	0.024176	0.038117	0.018605	0.014327
12/30/2016	0.009772	0.002146	0.000000	0.009132	-0.016949
1/2/2017	0.000000	0.000000	0.000000	0.000000	0.000000
1/3/2017	0.017742	0.019272	-0.023758	-0.009050	-0.022989
1/4/2017	-0.004754	0.025210	0.004425	0.022831	0.050000
1/5/2017	-0.001592	-0.008197	-0.008811	0.004464	-0.008403
1/6/2017	-0.004785	0.000000	0.011111	-0.004444	0.031073
1/9/2017	-0.016026	-0.028926	-0.008791	-0.008929	-0.002740
1/10/2017	0.003257	0.004255	0.011086	0.009009	0.008242
1/11/2017	-0.006494	0.000000	-0.002193	0.000000	0.002725
1/12/2017	0.001634	0.006356	-0.006593	-0.008929	0.024457
1/13/2017	-0.003263	0.006316	-0.017699	-0.013514	0.007958
1/16/2017	-0.006547	-0.004184	-0.015766	0.000000	-0.010526
1/17/2017	0.000000	0.002101	0.000000	0.009132	0.010638
1/18/2017	0.008237	0.002096	0.011442	0.009050	-0.010526
1/19/2017	0.004902	0.004184	0.000000	-0.022422	0.000000
1/20/2017	-0.008130	-0.016667	-0.004525	0.000000	0.005319
1/23/2017	-0.013115	0.000000	-0.002273	0.013761	0.002646
1/24/2017	0.000000	0.002119	0.002278	0.004525	0.005277
1/25/2017	-0.006645	-0.010571	0.000000	-0.009009	0.007874
1/26/2017	0.023411	0.004274	-0.009091	0.018182	-0.007813
1/27/2017	0.006536	-0.002128	0.006881	0.026786	0.010499
1/30/2017	0.003247	0.002132	0.004556	-0.004348	-0.007792

1/31/2017	-0.009709	-0.002128	-0.011338	-0.004367	-0.002618
2/1/2017	0.008170	0.019190	0.006881	0.043860	-0.007874
2/2/2017	0.001621	0.002092	0.002278	0.012605	0.002646
2/3/2017	0.001618	0.002088	0.006818	-0.008299	-0.002639
2/6/2017	0.008078	0.004167	0.027088	0.008368	0.007937
2/7/2017	0.001603	-0.002075	0.002198	0.012448	0.007874
2/8/2017	-0.001600	-0.006237	-0.015351	0.004098	-0.010417
2/9/2017	0.001603	0.002092	0.022272	0.012245	0.007895
2/10/2017	-0.040000	0.004175	-0.006536	0.008065	0.000000
2/13/2017	0.035000	0.004158	0.004386	0.008000	0.023499
2/14/2017	-0.001610	-0.006211	-0.002183	0.000000	0.035714
2/15/2017	0.000000	0.000000	0.000000	0.000000	0.000000
2/16/2017	0.000000	0.000000	-0.019694	-0.015873	0.029557
2/17/2017	-0.001613	-0.025000	-0.011161	0.016129	0.038278
2/20/2017	-0.001616	0.004274	0.018059	-0.003968	-0.013825
2/21/2017	0.003236	0.012766	-0.011086	0.000000	0.004673
2/22/2017	0.000000	0.008403	0.013453	0.000000	0.041860
2/23/2017	0.000000	-0.006250	-0.013274	0.007968	-0.013393
2/24/2017	0.000000	0.002096	-0.004484	0.003953	-0.027149
2/27/2017	0.000000	-0.006276	0.006757	-0.027559	-0.027907
2/28/2017	-0.003226	0.006316	0.011186	0.012146	0.023923
3/1/2017	0.003236	0.000000	0.004425	-0.004000	-0.037383
3/2/2017	0.000000	-0.008368	-0.002203	0.000000	0.029126
3/3/2017	-0.001613	0.000000	0.002208	0.020080	-0.004717
3/6/2017	0.000000	0.008439	-0.004405	-0.007874	-0.018957
3/7/2017	-0.001616	0.004184	0.002212	0.000000	-0.019324
3/8/2017	0.003236	0.000000	0.000000	-0.003968	0.009852
3/9/2017	0.008065	0.006250	0.004415	0.019920	0.014634
3/10/2017	0.000000	0.000000	0.002198	-0.015625	0.028846
3/13/2017	-0.004800	0.000000	0.000000	0.007937	-0.009346
3/14/2017	0.008039	-0.002070	0.002193	0.003937	0.066038
3/15/2017	-0.001595	0.008299	0.002188	0.003922	-0.004425
3/16/2017	0.014377	0.030864	0.010917	0.031250	0.022222
3/17/2017	0.004724	0.037924	0.004320	0.015152	-0.017391
3/20/2017	0.007837	0.000000	0.012903	-0.014925	-0.026549
3/21/2017	0.010886	0.000000	0.002123	-0.003788	0.022727
3/22/2017	0.004615	0.015385	-0.002119	0.003802	-0.004444

3/23/2017	0.016845	-0.003788	0.010616	0.045455	0.035714
3/24/2017	-0.003012	0.000000	0.000000	-0.014493	0.000000
3/27/2017	0.000000	-0.028517	-0.016807	-0.040441	-0.017241
3/29/2017	0.009063	0.003914	0.006410	0.011494	0.013158
3/30/2017	0.007485	0.009747	0.000000	-0.034091	-0.012987
3/31/2017	-0.016345	0.001931	-0.006369	0.015686	-0.004386
4/3/2017	0.001511	0.003854	0.004274	-0.003861	0.004405
4/4/2017	0.010558	0.000000	0.000000	0.015504	0.000000
4/5/2017	0.000000	0.000000	0.000000	0.000000	0.000000
4/6/2017	0.034328	0.011516	0.057447	0.022901	0.013158
4/7/2017	0.001443	-0.009488	-0.018109	-0.033582	0.004329
4/10/2017	0.000000	0.003831	-0.012295	-0.003861	0.004310
4/11/2017	0.005764	-0.015267	-0.024896	-0.011628	-0.004292
4/12/2017	0.011461	-0.009690	-0.004255	0.000000	0.000000
4/13/2017	-0.016997	-0.005871	-0.004274	-0.015686	-0.017241
4/17/2017	-0.024496	-0.021654	-0.002146	-0.003984	-0.004386
4/18/2017	0.000000	0.036217	0.010753	0.016000	0.008811
4/19/2017	0.000000	0.000000	0.000000	0.000000	0.000000
4/20/2017	0.023634	-0.009709	-0.019149	-0.015748	0.013100
4/21/2017	0.008658	0.013725	-0.010846	-0.016000	0.004310
4/25/2017	-0.004292	0.015474	0.013158	0.008130	0.008584
4/26/2017	0.034483	0.007619	0.023810	0.032258	-0.008511
4/27/2017	-0.026389	-0.017013	-0.008457	-0.003906	0.000000
4/28/2017	0.012839	-0.007692	-0.002132	0.000000	-0.012876
5/2/2017	0.008451	0.011628	-0.002137	0.007843	0.000000
5/3/2017	-0.008380	0.011494	-0.008565	-0.003891	0.000000
5/4/2017	0.004225	0.054924	0.010799	0.035156	0.021739
5/5/2017	-0.002805	0.000000	0.023504	-0.007547	-0.004255
5/8/2017	0.009845	0.012567	0.006263	0.022814	0.042735
5/9/2017	0.002786	-0.007092	-0.004149	-0.011152	0.004098
5/10/2017	-0.004167	-0.001786	0.002083	-0.011278	-0.040816
5/12/2017	0.004184	0.003578	-0.002079	0.015209	-0.017021
5/15/2017	0.013889	0.019608	0.010417	-0.022472	0.000000
5/16/2017	-0.046575	-0.019231	-0.012371	0.003831	0.012987
5/17/2017	-0.025862	0.005348	0.002088	-0.007634	0.038462
5/18/2017	0.026549	0.000000	0.012500	0.003846	-0.012346
5/19/2017	0.028736	0.028369	0.061728	0.026820	0.054167

5/22/2017	-0.013966	0.008621	-0.029070	0.018657	0.007905
5/23/2017	0.002833	-0.010256	-0.021956	-0.036630	-0.023529
5/24/2017	-0.012712	-0.022453	0.012245	-0.007605	-0.008032
5/26/2017	0.005722	0.005300	-0.020161	-0.007663	0.012146
5/29/2017	0.011380	-0.001757	0.016461	0.007722	-0.016000
5/30/2017	-0.009845	0.000000	0.006073	0.000000	-0.004065
5/31/2017	-0.025568	0.019366	0.014085	0.003831	0.020408
6/1/2017	0.000000	0.000000	0.000000	0.000000	0.000000
6/2/2017	0.023324	0.018998	0.000000	-0.015267	-0.012000
6/5/2017	0.009972	0.018644	0.005952	0.003876	0.000000
6/6/2017	-0.009873	-0.023295	-0.013807	0.003861	-0.020243
6/7/2017	0.014245	0.017036	-0.008000	-0.003846	0.008264
6/8/2017	0.007022	-0.018425	-0.006048	-0.003861	0.028689
6/9/2017	-0.012552	-0.018771	-0.008114	-0.007752	0.019920
6/12/2017	0.002825	0.017391	0.000000	0.007813	0.003906
6/13/2017	0.007042	-0.010256	0.002045	0.000000	0.042802
6/14/2017	0.005594	0.025907	0.020408	0.007752	0.007463
6/15/2017	0.004172	-0.011785	0.000000	0.011538	0.000000
6/16/2017	-0.013850	0.000000	-0.002000	-0.011407	-0.022222
6/19/2017	0.007022	0.008518	0.000000	0.007692	0.007576
6/20/2017	0.009763	0.011824	0.004008	0.022901	0.000000
6/21/2017	0.005525	0.021703	0.013972	-0.011194	0.003759
6/22/2017	-0.002747	-0.003268	0.003937	-0.003774	-0.026217
6/23/2017	0.000000	0.000000	0.000000	0.000000	0.000000
6/26/2017	0.000000	0.000000	0.000000	0.000000	0.000000
6/27/2017	0.000000	0.000000	0.000000	0.000000	0.000000
6/28/2017	0.000000	0.000000	0.000000	0.000000	0.000000
6/29/2017	0.000000	0.000000	0.000000	0.000000	0.000000
6/30/2017	0.000000	0.000000	0.000000	0.000000	0.000000
7/3/2017	0.019284	0.016393	0.058824	0.000000	0.000000
7/4/2017	0.002703	-0.012903	0.000000	-0.003788	0.015385
7/5/2017	-0.010782	-0.006536	-0.012963	0.011407	-0.015152
7/6/2017	-0.006812	-0.009868	0.000000	0.018797	-0.011538
7/7/2017	0.015089	0.000000	-0.005629	-0.007380	-0.027237
7/10/2017	-0.010811	-0.021595	-0.011321	0.018587	-0.044000
7/11/2017	0.001366	-0.006791	-0.009542	0.007299	0.004184
7/12/2017	0.005457	0.013675	0.019268	0.014493	0.037500

7/13/2017	0.004071	0.005059	0.013233	0.003571	-0.016064
7/14/2017	-0.005405	-0.006711	0.011194	0.010676	0.008163
7/17/2017	-0.005435	0.013514	0.001845	-0.010563	-0.008097
7/18/2017	0.002732	-0.006667	-0.003683	-0.003559	-0.008163
7/19/2017	0.006812	-0.011745	-0.014787	0.000000	-0.012346
7/20/2017	-0.001353	0.000000	0.013133	-0.007143	0.016667
7/21/2017	-0.012195	-0.003396	-0.033333	0.000000	-0.012295
7/24/2017	0.019204	0.000000	0.017241	0.014388	0.012448
7/25/2017	0.000000	0.008518	0.005650	0.007092	0.020492
7/26/2017	0.010767	-0.001689	0.000000	0.007042	-0.028112
7/27/2017	0.001332	-0.005076	0.001873	0.020979	0.041322
7/28/2017	0.000000	-0.013605	0.000000	0.006849	0.027778
7/31/2017	-0.005319	0.018966	0.020561	0.013605	0.003861
8/1/2017	0.012032	0.001692	-0.018315	-0.026846	0.007692
8/2/2017	0.000000	0.010135	-0.009328	0.003448	0.007634
8/3/2017	-0.009247	-0.006689	-0.011299	-0.013746	-0.011364
8/4/2017	-0.009333	0.005051	-0.003810	0.013937	0.011494
8/7/2017	0.002692	-0.001675	0.007648	-0.013746	-0.003788
8/8/2017	0.020134	0.003356	0.018975	0.006969	0.015209
8/9/2017	-0.001316	0.005017	-0.001862	0.006920	0.029963
8/10/2017	-0.007905	-0.001664	-0.005597	0.000000	-0.003636
8/11/2017	-0.007968	0.000000	-0.009381	0.000000	-0.010949
8/14/2017	0.004016	0.005000	0.003788	0.003436	0.011070
8/15/2017	-0.004000	-0.001658	0.003774	0.013699	-0.010949
8/16/2017	0.012048	0.013289	0.001880	0.000000	-0.011070
8/17/2017	0.000000	0.000000	0.000000	0.000000	0.000000
8/18/2017	-0.010582	-0.006557	-0.016886	0.000000	0.044776
8/21/2017	0.005348	0.008251	0.007634	0.000000	0.010714
8/22/2017	0.000000	0.001637	0.003788	0.000000	0.024735
8/23/2017	0.018617	0.000000	0.001887	0.000000	0.000000
8/24/2017	-0.010444	-0.004902	-0.005650	0.003378	-0.020690
8/25/2017	0.007916	0.004926	-0.001894	0.000000	0.010563
8/28/2017	-0.001309	-0.004902	0.003795	-0.006734	0.020906
8/29/2017	0.000000	-0.016420	-0.009452	-0.003390	0.006826
8/30/2017	0.001311	0.006678	0.000000	0.000000	0.000000
8/31/2017	-0.007853	0.003317	0.000000	0.000000	0.020339
9/1/2017	0.000000	0.000000	0.000000	0.000000	0.000000

9/4/2017	-0.003958	-0.016529	-0.003817	-0.020408	0.013289
9/5/2017	0.006623	0.008403	0.001916	0.003472	0.036066
9/6/2017	-0.005263	-0.010000	-0.009560	-0.003460	-0.022152
9/7/2017	0.002646	0.010101	0.005792	0.013889	-0.022654
9/8/2017	-0.005277	0.000000	0.019194	-0.010274	-0.006623
9/11/2017	0.002653	-0.003333	-0.005650	0.000000	0.000000
9/12/2017	0.006614	-0.001672	0.000000	0.003460	0.006667
9/13/2017	0.001314	-0.001675	-0.003788	0.000000	0.013245
9/14/2017	0.002625	-0.005034	-0.003802	0.000000	0.026144
9/15/2017	-0.011780	0.001686	0.011450	0.003448	0.050955
9/18/2017	0.005298	0.010101	-0.007547	-0.003436	-0.009091
9/19/2017	0.005270	0.001667	0.003802	0.013793	-0.018349
9/20/2017	-0.001311	0.000000	0.000000	0.003401	0.000000
9/21/2017	0.000000	0.000000	0.000000	0.000000	0.000000
9/22/2017	0.043307	0.043261	0.000000	0.013559	0.015576
9/25/2017	-0.010063	0.000000	-0.003788	0.003344	0.003067
9/26/2017	-0.001271	-0.007974	-0.003802	-0.013333	-0.012232
9/27/2017	0.005089	-0.019293	0.007634	-0.016892	-0.015480
9/28/2017	0.003797	-0.036066	-0.003788	0.003436	-0.037736
9/29/2017	0.023960	0.039116	0.022814	0.013699	0.029412
10/2/2017	0.001232	-0.001637	-0.003717	0.010135	-0.038095
10/3/2017	0.001230	0.004918	0.000000	0.023411	-0.033003
10/4/2017	-0.001229	-0.003263	-0.007463	-0.003268	0.003413
10/5/2017	-0.002460	0.003273	-0.007519	-0.016393	0.006803
10/6/2017	0.008631	0.003263	0.000000	-0.010000	0.016892
10/9/2017	-0.004890	0.000000	0.000000	-0.006734	-0.006645
10/10/2017	0.001229	-0.006504	0.015152	-0.010169	-0.010033
10/11/2017	0.000000	0.000000	0.003731	0.000000	0.016892
10/12/2017	0.020859	0.006547	0.014870	0.027397	0.043189
10/13/2017	-0.006010	-0.001626	-0.007326	0.016667	-0.028662
10/16/2017	0.002418	0.000000	0.022140	-0.013115	0.006557
10/17/2017	-0.010856	0.003257	0.014440	0.003322	0.003257
10/18/2017	-0.014634	0.000000	0.007117	0.013245	-0.006494
10/19/2017	0.006188	0.006494	-0.014134	0.003268	0.019608
10/20/2017	0.001230	0.008065	0.017921	-0.003257	-0.019231
10/23/2017	0.031941	0.000000	-0.021127	-0.013072	0.000000
10/24/2017	-0.019048	-0.009600	-0.017986	0.000000	-0.003268

10/25/2017	0.021845	0.008078	0.025641	0.006623	-0.016393
10/26/2017	-0.013064	0.001603	0.003571	0.000000	-0.010000
10/27/2017	-0.022864	-0.001600	-0.010676	0.013158	-0.047138
10/30/2017	0.006158	-0.003205	0.017986	-0.012987	-0.024735
10/31/2017	0.023256	0.003215	-0.003534	0.000000	0.000000
11/1/2017	0.020335	0.006410	0.007092	0.042763	0.021739
11/2/2017	0.007034	0.015924	0.024648	-0.012618	0.014184
11/3/2017	-0.020955	0.003135	-0.003436	-0.009585	0.006993
11/6/2017	-0.001189	0.015625	-0.003448	-0.006452	0.013889
11/7/2017	0.002381	-0.003077	-0.013841	0.032468	-0.006849
11/8/2017	-0.011876	0.015432	0.007018	-0.009434	-0.003448
11/9/2017	0.000000	0.000000	-0.013937	0.012698	-0.006920
11/10/2017	-0.007212	-0.003040	-0.003534	0.000000	0.013937
11/13/2017	-0.008475	-0.006098	0.000000	-0.015674	0.000000
11/14/2017	0.000000	-0.027607	-0.014184	0.003185	0.013746
11/15/2017	0.026862	-0.009464	0.003597	-0.025397	0.006780
11/16/2017	0.000000	0.022293	0.017921	0.026059	-0.010101
11/17/2017	0.007134	0.024922	0.031690	0.038095	0.013605
11/20/2017	-0.007084	0.015198	0.013652	-0.024465	0.000000
11/21/2017	0.004756	-0.017964	-0.003367	-0.006270	0.003356
11/22/2017	0.002367	0.036585	-0.003378	0.041009	0.026756
11/23/2017	-0.008264	-0.011765	0.010169	-0.003030	-0.003257
11/24/2017	0.000000	-0.002976	0.000000	0.000000	0.003268
11/27/2017	0.014286	-0.014925	-0.003356	-0.009119	0.009772
11/28/2017	0.000000	0.024242	0.000000	0.030675	0.025806
11/29/2017	-0.005869	-0.023669	-0.003367	0.000000	-0.006289
11/30/2017	-0.038961	-0.027273	0.000000	-0.035714	0.012658
12/1/2017	0.000000	0.000000	0.000000	0.000000	0.000000
12/4/2017	0.022113	0.028037	0.006757	0.015432	0.028125
12/5/2017	0.009615	0.015152	0.003356	0.027356	0.033435
12/6/2017	0.014286	0.032836	0.000000	0.008876	-0.005882
12/7/2017	-0.015258	-0.023121	-0.016722	0.000000	0.050296
12/8/2017	0.007151	-0.002959	0.017007	0.038123	-0.002817
12/11/2017	-0.002367	0.020772	0.000000	0.005650	-0.025424
12/12/2017	0.008304	0.002907	-0.003344	-0.011236	-0.026087
12/13/2017	-0.015294	0.000000	0.003356	0.034091	0.000000
12/14/2017	0.008363	0.002899	0.000000	0.013736	0.002976

12/15/2017	0.000000	-0.020231	-0.006689	0.016260	0.000000
12/18/2017	0.000000	0.000000	0.010101	-0.008000	0.017804
12/19/2017	0.000000	0.014749	-0.003333	0.024194	0.014577
12/20/2017	-0.008294	-0.011628	-0.003344	0.000000	-0.002874
12/21/2017	0.008363	0.005882	0.023490	0.034121	0.011527
12/22/2017	0.018957	0.011696	0.006557	0.000000	-0.002849
12/25/2017	0.000000	0.000000	0.000000	0.000000	0.000000
12/26/2017	0.000000	0.000000	0.000000	0.000000	0.000000
12/27/2017	0.001163	0.026012	0.042345	0.005076	-0.002857
12/28/2017	0.018583	0.022535	-0.006250	0.002525	0.008596
12/29/2017	-0.001140	0.002755	0.006289	-0.002519	0.014205
1/1/2018	0.000000	0.000000	0.000000	0.000000	0.000000
1/2/2018	0.000000	-0.002747	-0.018750	-0.012626	0.005602
1/3/2018	0.000000	-0.005510	-0.019108	-0.035806	0.000000
1/4/2018	0.014840	-0.016620	0.016234	-0.002653	-0.036212
1/5/2018	0.001125	0.011268	0.000000	-0.010638	-0.005780
1/8/2018	0.004494	0.000000	0.012780	0.000000	-0.005814
1/9/2018	0.007830	-0.005571	-0.003155	0.000000	0.023392
1/10/2018	-0.003330	-0.011204	0.000000	-0.002688	0.031429
1/11/2018	0.011136	0.002833	0.022152	0.000000	0.002770
1/12/2018	-0.012115	0.000000	0.003096	0.000000	0.002762
1/15/2018	0.002230	0.002825	0.012346	0.024259	0.002755
1/16/2018	0.005562	0.016901	0.003049	0.010526	0.002747
1/17/2018	-0.019912	0.005540	-0.015198	0.000000	0.005479
1/18/2018	0.019187	-0.002755	0.003086	-0.010417	0.005450
1/19/2018	-0.005537	0.000000	-0.006154	-0.007895	-0.008130
1/22/2018	0.001114	0.008287	0.000000	-0.002653	-0.005464
1/23/2018	0.007786	0.073973	0.012384	0.026596	0.013736
1/24/2018	-0.003311	-0.022959	0.009174	0.007772	-0.002710
1/25/2018	0.000000	-0.015666	-0.012121	-0.012853	-0.013587
1/26/2018	0.005537	0.021220	0.006135	0.000000	-0.008264
1/29/2018	0.004405	-0.012987	-0.003049	-0.010417	0.011111
1/30/2018	0.000000	-0.021053	-0.015291	-0.028947	-0.010989
1/31/2018	-0.003289	-0.005376	0.012422	0.018970	0.016667
2/1/2018	0.028603	0.000000	0.006135	-0.007979	-0.013661
2/2/2018	0.025668	0.010811	-0.009146	-0.002681	0.016620
2/5/2018	-0.007299	0.010695	0.000000	-0.002688	-0.005450

2/6/2018	-0.011555	-0.026455	-0.012308	-0.021563	-0.013699
2/7/2018	-0.001063	0.005435	0.012461	0.052342	0.000000
2/8/2018	0.008511	0.005405	0.006154	-0.005236	0.011111
2/9/2018	-0.005274	-0.002688	0.006116	-0.007895	-0.010989
2/12/2018	-0.003181	0.024259	-0.003040	0.010610	0.033333
2/13/2018	0.012766	0.021053	0.009146	0.018373	0.010753
2/14/2018	-0.004202	-0.005155	0.003021	0.000000	0.013298
2/15/2018	-0.010549	-0.005181	0.000000	-0.007732	-0.010499
2/16/2018	0.000000	0.000000	0.000000	0.000000	0.000000
2/19/2018	0.034115	0.005208	0.021084	0.025974	0.018568
2/20/2018	-0.009278	-0.015544	0.067847	0.005063	-0.010417
2/21/2018	0.000000	0.000000	-0.027624	0.025189	0.000000
2/22/2018	-0.005203	-0.007895	-0.019886	-0.039312	-0.002632
2/23/2018	0.014644	0.005305	-0.008696	0.007673	-0.010554
2/26/2018	-0.029897	-0.013193	-0.029240	-0.002538	-0.021333
2/27/2018	0.001063	0.008021	0.015060	0.000000	0.016349
2/28/2018	-0.015924	0.002653	-0.014837	-0.010178	0.002681
3/1/2018	0.000000	0.002646	0.009036	-0.010283	0.005348
3/2/2018	-0.012945	0.000000	0.011940	-0.010390	0.002660
3/5/2018	0.000000	-0.005277	-0.029499	0.002625	0.007958
3/6/2018	-0.004372	-0.010610	-0.021277	-0.039267	-0.021053
3/7/2018	-0.007684	-0.018767	-0.015528	-0.010899	-0.002688
3/8/2018	0.030973	0.030055	0.022082	0.030303	0.024259
3/9/2018	0.000000	-0.021220	0.000000	0.005348	-0.013158
3/12/2018	0.013948	0.018970	0.027778	-0.005319	-0.013333
3/13/2018	-0.007407	0.000000	-0.018018	-0.010695	0.013514
3/14/2018	-0.002132	-0.002660	0.003058	0.021622	-0.018667
3/15/2018	-0.001068	-0.029333	-0.024390	-0.005291	-0.029891
3/16/2018	-0.001070	0.010989	-0.009375	0.013298	0.033613
3/19/2018	0.000000	0.002717	0.018927	0.007874	0.013550
3/20/2018	-0.003212	0.013550	0.003096	-0.036458	-0.032086
3/21/2018	0.004296	0.018717	0.012346	0.002703	0.019337
3/22/2018	0.003209	-0.036745	-0.024390	-0.040431	0.032520
3/23/2018	0.014925	-0.019074	0.006250	-0.019663	-0.015748
3/26/2018	-0.022059	0.000000	0.003106	0.048711	0.002667
3/27/2018	0.007519	0.000000	-0.009288	0.005464	-0.023936
3/28/2018	-0.005330	-0.013889	-0.025000	-0.059783	0.005450

3/29/2018	-0.001072	0.014085	-0.016026	0.002890	0.029810
3/30/2018	0.000000	0.000000	0.000000	0.000000	0.000000
4/2/2018	0.004292	0.000000	0.019544	0.005764	-0.018421
4/3/2018	0.000000	0.000000	-0.003195	-0.011461	-0.002681
4/4/2018	-0.004274	-0.030556	-0.025641	-0.040580	-0.056452
4/5/2018	-0.010730	-0.005731	0.006579	-0.009063	0.008547
4/6/2018	-0.014100	0.002882	-0.013072	0.012195	0.000000
4/9/2018	0.002200	0.014368	0.003311	0.024096	0.016949
4/10/2018	0.023052	0.014164	0.039604	0.026471	0.011111
4/11/2018	0.001073	0.019553	0.022222	-0.017192	0.005495
4/12/2018	-0.007503	-0.016438	-0.003106	0.008746	-0.002732
4/13/2018	-0.010799	-0.011142	0.000000	0.020231	-0.019178
4/16/2018	0.000000	0.000000	0.000000	0.000000	0.000000
4/17/2018	0.000000	0.000000	0.000000	0.000000	0.000000
4/18/2018	0.003275	0.030986	0.003115	-0.005666	0.011173
4/19/2018	0.000000	0.000000	0.000000	0.000000	0.000000
4/20/2018	0.000000	0.000000	0.000000	0.000000	0.000000
4/23/2018	0.001088	-0.021858	-0.006211	-0.005698	0.027624
4/24/2018	-0.003261	-0.025140	-0.034375	-0.040115	-0.016129
4/25/2018	0.000000	0.000000	0.000000	0.000000	0.000000
4/26/2018	0.000000	0.000000	0.000000	0.000000	0.000000
4/27/2018	0.000000	0.000000	0.000000	0.000000	0.000000
4/30/2018	-0.035987	-0.077364	-0.077670	-0.038806	-0.150273
5/1/2018	0.000000	0.000000	0.000000	0.000000	0.000000
5/2/2018	0.036199	0.003106	0.010526	-0.006211	0.000000
5/3/2018	-0.026201	-0.024768	-0.048611	-0.034375	-0.061093
5/4/2018	-0.012332	-0.038095	-0.032847	-0.032362	-0.092466
5/7/2018	0.012486	0.006601	0.026415	-0.020067	0.090566
5/8/2018	-0.012332	0.006557	0.000000	0.000000	-0.038062
5/9/2018	0.039728	0.045603	0.055147	0.098976	0.028777
5/10/2018	0.000000	0.000000	0.000000	0.000000	0.000000
5/11/2018	-0.006550	-0.015576	0.003484	0.027950	0.069930
5/14/2018	0.009890	0.009494	0.000000	-0.009063	-0.019608
5/15/2018	-0.033732	-0.037618	-0.048611	-0.015244	-0.020000
5/16/2018	0.007883	0.000000	0.000000	-0.009288	-0.027211
5/17/2018	-0.016760	-0.026059	-0.021898	-0.025000	-0.010490
5/18/2018	-0.013636	-0.016722	0.014925	-0.028846	-0.028269

5/21/2018	-0.002304	-0.061224	-0.018382	-0.036304	0.007273
5/22/2018	0.016166	-0.014493	-0.022472	-0.023973	0.007220
5/23/2018	0.000000	0.058824	0.038314	0.010526	0.025090
5/24/2018	0.020455	0.062500	0.033210	0.065972	0.048951
5/25/2018	0.004454	0.019608	0.000000	0.039088	0.000000
5/28/2018	0.013304	0.041667	0.053571	0.075235	0.080000
5/29/2018	0.000000	0.000000	0.000000	0.000000	0.000000
5/30/2018	-0.006565	-0.033846	-0.016949	0.008746	-0.021605
5/31/2018	0.000000	-0.019108	-0.027586	-0.020231	-0.037855
6/1/2018	0.000000	0.000000	0.000000	0.000000	0.000000
6/4/2018	0.009912	0.016234	0.046099	0.000000	0.016393
6/5/2018	-0.008724	-0.006390	-0.003390	-0.023599	-0.032258
6/6/2018	0.013201	0.012862	-0.003401	-0.003021	-0.010000
6/7/2018	-0.002172	0.038095	0.006826	0.024242	0.033670
6/8/2018	-0.031556	-0.039755	-0.057627	-0.047337	-0.013029
6/11/2018	0.000000	0.000000	0.000000	0.000000	0.000000
6/12/2018	0.000000	0.000000	0.000000	0.000000	0.000000
6/13/2018	0.000000	0.000000	0.000000	0.000000	0.000000
6/14/2018	0.000000	0.000000	0.000000	0.000000	0.000000
6/15/2018	0.000000	0.000000	0.000000	0.000000	0.000000
6/18/2018	0.000000	0.000000	0.000000	0.000000	0.000000
6/19/2018	0.000000	0.000000	0.000000	0.000000	0.000000
6/20/2018	-0.033708	-0.057325	-0.035971	-0.065217	-0.056106
6/21/2018	-0.016279	-0.016892	0.000000	-0.016611	-0.020979
6/22/2018	0.036643	0.024055	0.000000	0.000000	-0.039286
6/25/2018	0.012543	-0.030201	0.000000	-0.013514	-0.018587
6/26/2018	-0.037162	-0.024221	-0.011194	-0.020548	-0.015152
6/27/2018	-0.001170	0.007092	-0.003774	-0.013986	-0.030769
6/28/2018	-0.018735	-0.031690	-0.015152	-0.035461	-0.059524
6/29/2018	0.025060	0.032727	0.053846	0.036765	0.033755
7/2/2018	-0.001164	0.003521	-0.047445	0.000000	-0.036735
7/3/2018	-0.039627	-0.007018	-0.030651	-0.014184	-0.004237
7/4/2018	0.030340	0.035336	0.043478	0.035971	0.051064
7/5/2018	0.000000	-0.006826	-0.011364	-0.013889	-0.089069
7/6/2018	-0.014134	-0.024055	-0.034483	-0.021127	-0.044444
7/9/2018	0.046595	0.059859	0.019841	0.035971	0.083721
7/10/2018	0.000000	0.013289	0.003891	0.013889	-0.012876

7/11/2018	0.019406	-0.019672	-0.015504	-0.017123	-0.013043
7/12/2018	0.022396	-0.006689	0.015748	-0.020906	-0.030837
7/13/2018	0.008762	0.000000	0.023256	0.032028	0.095455
7/16/2018	0.004343	0.000000	-0.007576	0.013793	0.029046
7/17/2018	-0.017297	-0.033670	-0.034351	0.010204	-0.016129
7/18/2018	0.020902	-0.006969	0.011858	-0.006734	0.024590
7/19/2018	0.000000	0.014035	-0.003906	0.000000	-0.060000
7/20/2018	-0.004310	0.031142	-0.003922	-0.016949	-0.042553
7/23/2018	0.010823	0.020134	0.007874	0.006897	0.026667
7/24/2018	0.007495	-0.009868	0.019531	0.006849	0.021645
7/25/2018	0.002125	-0.006645	-0.007663	-0.006803	-0.012712
7/26/2018	-0.010604	0.016722	0.011583	0.037671	0.008584
7/27/2018	-0.004287	0.016447	0.003817	-0.016502	0.025532
7/30/2018	0.002153	-0.003236	0.022814	0.006711	-0.012448
7/31/2018	0.000000	-0.003247	-0.011152	-0.013333	-0.008403
8/1/2018	0.008593	0.039088	0.052632	0.057432	0.042373
8/2/2018	-0.001065	0.018809	0.007143	-0.003195	-0.020325
8/3/2018	0.000000	0.024615	0.021277	0.012821	0.016598
8/6/2018	0.014925	0.024024	0.013889	0.037975	0.085714
8/7/2018	0.000000	-0.017595	-0.013699	-0.012195	0.000000
8/8/2018	0.005252	-0.005970	0.017361	0.000000	-0.015038
8/9/2018	0.007315	0.000000	-0.006826	-0.018519	0.053435
8/10/2018	-0.009336	0.018018	0.010309	0.003145	0.018116
8/13/2018	-0.023037	-0.073746	-0.057823	-0.072100	-0.064057
8/14/2018	0.007503	-0.003185	-0.028881	-0.013514	-0.038023
8/15/2018	-0.002128	0.025559	0.011152	0.010274	0.019763
8/16/2018	-0.003198	-0.049844	-0.014706	-0.040678	-0.034884
8/17/2018	0.000000	0.000000	0.000000	0.000000	0.000000
8/20/2018	0.022460	0.042623	0.003731	0.028269	0.008032
8/21/2018	-0.001046	-0.009434	-0.003717	0.013746	0.019920
8/22/2018	0.000000	0.000000	0.000000	0.000000	0.000000
8/23/2018	0.029319	0.038095	0.022388	0.023729	0.031250
8/24/2018	0.020346	0.000000	-0.010949	-0.016556	-0.003788
8/27/2018	-0.011964	0.033639	0.029520	0.033670	0.053232
8/28/2018	0.008073	-0.014793	0.003584	0.026059	0.014440
8/29/2018	-0.007007	-0.012012	0.000000	-0.003175	0.017794
8/30/2018	0.011089	-0.030395	-0.021429	-0.028662	0.000000

8/31/2018	-0.010967	-0.003135	0.007299	0.022951	-0.038462
9/3/2018	-0.001008	-0.003145	-0.028986	0.006410	0.000000
9/4/2018	-0.001009	-0.018927	-0.018657	-0.044586	-0.036364
9/5/2018	-0.030303	-0.057878	-0.038023	-0.056667	-0.064151
9/6/2018	0.029167	0.010239	0.035573	0.028269	0.024194
9/7/2018	0.006073	0.023649	0.011450	0.010309	0.031496
9/10/2018	-0.004024	-0.019802	-0.007547	-0.010204	-0.022901
9/11/2018	0.000000	0.000000	0.000000	0.000000	0.000000
9/12/2018	-0.034343	-0.020202	-0.030418	-0.020619	-0.011719
9/13/2018	0.004184	0.030928	0.031373	0.031579	0.027668
9/14/2018	-0.001042	0.023333	0.026616	0.023810	0.030769
9/17/2018	-0.002086	-0.032573	-0.044444	-0.039867	-0.033582
9/18/2018	0.003135	-0.010101	-0.011628	0.000000	0.000000
9/19/2018	0.000000	0.020408	0.003922	-0.006920	0.000000
9/20/2018	-0.002083	0.030000	0.042969	0.017422	0.011583
9/21/2018	-0.010438	0.009709	0.026217	0.047945	0.022901
9/24/2018	0.009494	-0.035256	-0.014599	-0.035948	-0.014925
9/25/2018	0.000000	0.006645	-0.018519	-0.003390	0.003788
9/26/2018	0.011494	-0.013201	-0.003774	-0.003401	-0.003774
9/27/2018	-0.008264	0.026756	0.003788	0.003413	0.003788
9/28/2018	0.006250	0.026059	0.015094	0.006803	-0.007547
10/1/2018	-0.008282	0.009524	-0.003717	0.013514	0.000000
10/2/2018	0.000000	-0.022013	-0.037313	-0.030000	-0.034221
10/3/2018	-0.001044	-0.003215	0.007752	-0.003436	0.000000
10/4/2018	-0.013584	-0.032258	-0.042308	-0.048276	-0.055118
10/5/2018	-0.023305	-0.006667	0.008032	-0.003623	0.004167
10/8/2018	0.017354	-0.003356	-0.011952	-0.007273	0.000000
10/9/2018	0.012793	0.016835	0.024194	0.000000	0.000000
10/10/2018	-0.015789	-0.003311	0.019685	0.018315	0.004149
10/11/2018	-0.027807	-0.033223	-0.030888	-0.032374	-0.049587
10/12/2018	0.023102	0.013746	0.019920	0.029740	0.017391
10/15/2018	0.025806	0.016949	-0.003906	0.018051	0.000000
10/16/2018	0.010482	0.000000	0.019608	0.028369	0.000000
10/17/2018	-0.003112	0.023333	0.011538	0.010345	0.034188
10/18/2018	-0.017690	0.006515	-0.011407	-0.017065	0.000000
10/19/2018	-0.009534	-0.022654	-0.007692	-0.003472	-0.020661
10/22/2018	-0.009626	0.009934	0.000000	0.000000	-0.012658

10/23/2018	-0.008639	-0.009836	-0.003876	-0.006969	-0.017094
10/24/2018	-0.013072	-0.023179	-0.015564	-0.010526	-0.056522
10/25/2018	0.011038	0.016949	0.023715	0.003546	0.004608
10/26/2018	0.030568	-0.003333	-0.003861	0.003534	-0.018349
10/29/2018	-0.020127	-0.013378	-0.007752	-0.003521	-0.042056
10/30/2018	0.016216	0.027119	0.019531	0.014134	0.024390
10/31/2018	0.006383	0.039604	0.049808	0.020906	0.009524
11/1/2018	0.006342	0.015873	0.054745	0.013652	0.056604
11/2/2018	0.008403	0.025000	0.027682	0.047138	0.049107
11/5/2018	0.007292	-0.003049	-0.006734	-0.022508	-0.008511
11/6/2018	0.009307	0.018349	-0.003390	0.019737	0.004292
11/7/2018	-0.012295	0.012012	0.000000	0.006452	0.017094
11/8/2018	-0.004149	0.023739	0.020408	0.012821	0.012605
11/9/2018	0.000000	-0.031884	-0.036667	0.012658	-0.024896
11/12/2018	-0.012500	-0.017964	-0.034602	-0.050000	-0.055319
11/13/2018	0.015823	0.021341	0.025090	0.039474	0.009009
11/14/2018	-0.001038	0.000000	-0.003497	0.015823	0.004464
11/15/2018	0.005198	0.017910	0.038596	0.028037	0.022222
11/16/2018	0.026887	0.023460	0.006757	0.006061	0.043478
11/19/2018	0.011078	0.008596	0.003356	0.012048	-0.008333
11/20/2018	0.000000	0.000000	0.000000	0.000000	0.000000
11/21/2018	-0.011952	-0.025568	-0.026756	-0.017857	0.000000
11/22/2018	0.012097	0.034985	0.006873	0.018182	0.063025
11/23/2018	0.000000	-0.019718	-0.003413	0.002976	0.000000
11/26/2018	0.004980	0.017241	0.010274	0.000000	0.023715
11/27/2018	0.010902	0.016949	0.010169	0.026706	0.019305
11/28/2018	-0.001961	0.013889	-0.006711	-0.011561	-0.041667
11/29/2018	0.029470	0.016438	0.033784	0.026316	0.071146
11/30/2018	-0.005725	-0.024259	-0.032680	-0.031339	-0.014760
12/3/2018	-0.009597	0.019337	0.027027	0.029412	0.044944
12/4/2018	0.015504	0.005420	0.006579	0.005714	-0.014337
12/5/2018	-0.001908	-0.016173	-0.009804	-0.005682	-0.010909
12/6/2018	0.005736	0.000000	-0.013201	-0.011429	0.007353
12/7/2018	-0.013308	-0.008219	0.003344	-0.008671	0.000000
12/10/2018	-0.001927	-0.002762	-0.010000	0.000000	-0.021898
12/11/2018	-0.003861	0.002770	0.003367	-0.014577	0.000000
12/12/2018	0.000969	0.000000	0.003356	0.000000	0.014925

12/13/2018	0.000000	0.016575	0.030100	0.011834	0.003676
12/14/2018	0.000000	0.000000	-0.016234	0.005848	-0.029304
12/17/2018	0.000000	-0.021739	-0.023102	-0.002907	-0.030189
12/18/2018	-0.019361	0.008333	-0.006757	0.005831	0.015564
12/19/2018	0.032577	0.011019	0.010204	0.008696	0.019157
12/20/2018	-0.021989	-0.005450	-0.016835	-0.002874	-0.022556
12/21/2018	0.010753	-0.008219	-0.010274	0.000000	-0.007692
12/24/2018	0.000000	0.000000	0.000000	0.000000	0.000000
12/25/2018	0.000000	0.000000	0.000000	0.000000	0.000000
12/26/2018	0.010638	-0.005525	0.000000	0.002882	-0.015504
12/27/2018	-0.005742	0.016667	0.006920	0.011494	0.011811
12/28/2018	0.000962	0.000000	0.013746	0.000000	-0.011673
12/31/2018	0.000000	0.000000	0.000000	0.000000	0.000000
1/1/2019	0.000000	0.000000	0.000000	0.000000	0.000000
1/2/2019	0.007692	-0.013661	-0.006780	-0.008523	0.003937
1/3/2019	-0.011450	0.002770	-0.020478	0.000000	-0.007843
1/4/2019	0.004826	0.011050	0.038328	0.000000	0.019763
1/7/2019	0.007685	0.000000	-0.003356	0.017192	0.023256
1/8/2019	-0.000953	0.005464	-0.010101	0.002817	0.034091
1/9/2019	0.002863	0.010870	0.030612	-0.005618	-0.018315
1/10/2019	0.000000	0.008065	0.016502	0.000000	0.000000
1/11/2019	-0.000951	-0.005333	0.000000	0.008475	0.018657
1/14/2019	-0.009524	0.016086	0.000000	-0.005602	0.003663
1/15/2019	0.011538	-0.002639	0.012987	0.014085	0.007299
1/16/2019	0.004753	0.000000	0.000000	0.027778	-0.003623
1/17/2019	0.008515	0.007937	0.009615	0.000000	0.003636
1/18/2019	0.017824	0.002625	0.000000	0.016216	0.000000
1/21/2019	0.022120	-0.005236	-0.009524	-0.018617	0.003623
1/22/2019	0.009919	-0.007895	-0.006410	0.002710	0.000000
1/23/2019	-0.017857	0.000000	-0.035484	-0.021622	-0.018051
1/24/2019	-0.007273	0.005305	0.000000	-0.005525	-0.014706
1/25/2019	0.007326	-0.002639	-0.013378	0.011111	0.007463
1/28/2019	-0.000909	0.000000	-0.027119	0.000000	-0.018519
1/29/2019	0.008189	-0.023810	-0.006969	-0.008242	-0.007547
1/30/2019	-0.003610	0.016260	0.017544	-0.002770	0.015209
1/31/2019	0.020833	0.026667	0.027586	0.008333	0.026217
2/1/2019	0.000000	0.018182	0.020134	0.019284	0.018248

2/4/2019	-0.023957	-0.005102	-0.032895	-0.013514	-0.010753
2/5/2019	0.000000	0.000000	0.000000	0.000000	0.000000
2/6/2019	0.006364	0.005128	0.017007	-0.002740	-0.007246
2/7/2019	-0.000903	0.002551	0.010033	-0.002747	-0.007299
2/8/2019	-0.001808	-0.010178	0.003311	-0.011019	-0.007353
2/11/2019	-0.004529	-0.005141	0.006601	0.008357	-0.018519
2/12/2019	-0.006369	-0.005168	-0.026230	-0.016575	-0.018868
2/13/2019	-0.007326	-0.015584	-0.023569	-0.028090	-0.003846
2/14/2019	-0.007380	0.002639	-0.010345	0.014451	-0.023166
2/15/2019	-0.003717	-0.007895	0.000000	0.000000	-0.019763
2/18/2019	0.022388	0.018568	0.013937	0.022792	0.032258
2/19/2019	-0.018248	0.018229	-0.010309	-0.011142	-0.015625
2/20/2019	0.022305	-0.005115	-0.013889	-0.005634	-0.007937
2/21/2019	0.000909	0.005141	0.031690	0.011331	0.016000
2/22/2019	-0.002725	-0.002558	-0.030717	-0.022409	-0.015748
2/25/2019	0.000000	0.015385	0.021127	0.008596	0.012000
2/26/2019	0.011840	-0.005051	0.003448	0.005682	-0.003953
2/27/2019	0.001800	-0.017766	-0.010309	0.000000	-0.007937
2/28/2019	-0.008985	-0.005168	-0.010417	-0.005650	-0.028000
3/1/2019	0.004533	0.005195	0.007018	0.019886	-0.032922
3/4/2019	-0.000903	0.002584	-0.010453	-0.002786	0.017021
3/5/2019	-0.007227	-0.005155	-0.021127	-0.016760	-0.016736
3/6/2019	-0.000910	0.010363	0.017986	0.000000	0.000000
3/7/2019	0.000000	0.000000	0.000000	0.000000	0.000000
3/8/2019	-0.009107	-0.012821	-0.024735	-0.014205	-0.034043
3/11/2019	0.011949	0.002597	-0.007246	0.000000	0.000000
3/12/2019	-0.000908	-0.005181	-0.018248	0.000000	0.000000
3/13/2019	0.000000	-0.013021	-0.003717	-0.008646	0.008811
3/14/2019	-0.003636	0.013193	0.029851	0.026163	0.052402
3/15/2019	0.010949	0.028646	0.028986	0.028329	0.012448
3/18/2019	0.001805	0.012658	0.000000	0.030303	-0.012295
3/19/2019	-0.010811	-0.005000	0.038732	0.000000	0.012448
3/20/2019	-0.003643	0.002513	0.003390	-0.005348	-0.016393
3/21/2019	0.000914	0.000000	0.010135	0.024194	0.050000
3/22/2019	0.001826	0.015038	-0.003344	0.007874	0.003968
3/25/2019	-0.005469	-0.009877	-0.036913	-0.041667	-0.047431
3/26/2019	0.002750	0.012469	0.017422	0.019022	0.029046

3/27/2019	0.002742	-0.002463	-0.010274	-0.002667	-0.016129
3/28/2019	-0.002735	0.004938	0.020761	0.008021	0.020492
3/29/2019	0.007313	0.009828	0.013559	-0.002653	-0.016064
4/1/2019	-0.001815	0.009732	0.003344	0.005319	-0.028571
4/2/2019	0.000000	0.000000	-0.010000	0.002646	-0.012605
4/3/2019	0.000000	0.000000	0.000000	0.000000	0.000000
4/4/2019	0.007273	0.016867	0.033670	0.023747	0.008511
4/5/2019	-0.001805	0.011848	-0.016287	0.002577	0.008439
4/8/2019	-0.009042	-0.004684	-0.006623	-0.025707	-0.025105
4/9/2019	0.010036	0.011765	0.023333	0.021108	0.004292
4/10/2019	-0.001807	0.002326	-0.016287	0.002584	0.025641
4/11/2019	-0.008145	-0.002320	-0.019868	-0.007732	-0.020833
4/12/2019	0.003650	0.002326	-0.010135	0.005195	0.021277
4/15/2019	0.000909	0.009281	0.003413	-0.002584	0.016667
4/16/2019	-0.001817	-0.002299	0.037415	0.005181	0.057377
4/17/2019	0.000000	0.000000	0.000000	0.000000	0.000000
4/18/2019	0.023658	0.027650	0.022951	0.015464	0.015504
4/19/2019	0.000000	0.000000	0.000000	0.000000	0.000000
4/22/2019	0.000000	-0.004484	-0.006410	-0.017766	-0.007634
4/23/2019	0.000889	-0.002252	-0.009677	0.012920	0.011538
4/24/2019	0.000000	-0.006772	0.000000	0.000000	-0.030418
4/25/2019	-0.006217	-0.015909	-0.003257	-0.020408	-0.039216
4/26/2019	0.004468	0.000000	0.009804	0.005208	0.024490
4/29/2019	0.011566	0.002309	0.006472	-0.002591	0.007968
4/30/2019	0.011434	0.006912	-0.006431	-0.002597	0.000000
5/1/2019	0.000000	0.000000	0.000000	0.000000	0.000000
5/2/2019	-0.011304	0.000000	-0.003236	-0.018229	-0.015810
5/3/2019	-0.001759	0.002288	-0.006494	-0.018568	-0.004016
5/6/2019	-0.009692	-0.034247	-0.016340	-0.040541	-0.040323
5/7/2019	0.007117	0.004728	0.016611	0.008451	0.033613
5/8/2019	0.007067	-0.007059	-0.016340	-0.022346	-0.016260
5/9/2019	-0.012281	-0.023697	-0.003322	-0.020000	-0.028926
5/10/2019	-0.003552	0.000000	-0.003333	0.002915	0.017021
5/13/2019	0.000000	-0.004854	0.006689	-0.011628	-0.033473
5/14/2019	-0.020499	-0.012195	-0.009967	-0.005882	0.000000
5/15/2019	-0.006369	-0.039506	-0.003356	-0.026627	-0.012987
5/16/2019	-0.032967	-0.007712	-0.010101	-0.006079	-0.013158

5/17/2019	-0.018939	-0.018135	-0.037415	-0.009174	-0.004444
5/20/2019	0.038610	-0.010554	0.021201	0.040123	0.040179
5/21/2019	0.014870	0.000000	0.003460	0.020772	0.004292
5/22/2019	0.000000	0.005333	0.006897	-0.034884	-0.004274
5/23/2019	0.026557	0.021220	0.037671	0.024096	0.017167
5/24/2019	0.000892	0.000000	0.016502	0.017647	0.004219
5/27/2019	0.013369	0.018182	0.003247	0.005780	0.033613
5/28/2019	0.008795	-0.028061	-0.045307	-0.063218	-0.024390
5/29/2019	0.000872	0.034121	0.023729	0.000000	0.008333
5/30/2019	0.000000	0.000000	0.000000	0.000000	0.000000
5/31/2019	0.013937	0.040609	0.016556	0.030675	0.020661
6/3/2019	0.000000	0.000000	0.000000	0.000000	0.000000
6/4/2019	0.000000	0.000000	0.000000	0.000000	0.000000
6/5/2019	0.000000	0.000000	0.000000	0.000000	0.000000
6/6/2019	0.000000	0.000000	0.000000	0.000000	0.000000
6/7/2019	0.000000	0.000000	0.000000	0.000000	0.000000
6/10/2019	0.010309	0.031707	0.022801	0.032738	0.044534
6/11/2019	0.005102	0.000000	0.003185	-0.011527	-0.007752
6/12/2019	-0.010998	-0.004728	0.000000	0.002915	0.007813
6/13/2019	-0.006843	-0.002375	-0.006349	0.005814	0.027132
6/14/2019	-0.000861	0.007143	0.000000	-0.017341	0.000000
6/17/2019	-0.000862	-0.007092	-0.003195	-0.005882	-0.026415
6/18/2019	0.018119	0.014286	0.006410	0.032544	0.031008
6/19/2019	0.006780	0.007042	0.015924	0.020057	0.030075
6/20/2019	-0.005051	0.004662	-0.003135	-0.011236	-0.010949
6/21/2019	-0.005076	0.011601	0.003145	0.005682	-0.014760
6/24/2019	-0.000850	-0.011468	0.000000	0.002825	0.007491
6/25/2019	0.005957	0.004640	-0.003135	0.005634	-0.011152
6/26/2019	-0.007614	0.006928	0.000000	-0.008403	-0.022556
6/27/2019	0.011935	0.004587	0.006289	0.005650	-0.057692
6/28/2019	0.010110	-0.004566	0.003125	0.033708	0.004082
7/1/2019	-0.000834	0.013761	-0.003115	0.019022	0.024390
7/2/2019	0.001669	-0.002262	0.003125	-0.002667	-0.003968
7/3/2019	0.000000	-0.002268	0.000000	-0.002674	-0.023904
7/4/2019	-0.001667	-0.002273	0.000000	0.005362	0.000000
7/5/2019	-0.003339	0.002278	-0.024922	-0.018667	-0.008163
7/8/2019	-0.015075	0.000000	0.006390	-0.024457	-0.004115

7/9/2019	0.020408	0.002273	0.003175	0.019499	0.000000
7/10/2019	0.000000	0.013605	0.006329	0.000000	0.012397
7/11/2019	0.004167	0.008949	0.006289	0.010929	0.004082
7/12/2019	-0.002490	0.000000	0.009375	-0.005405	-0.012195
7/15/2019	0.015807	0.004435	0.009288	-0.002717	0.016461
7/16/2019	-0.003276	0.004415	-0.009202	-0.010899	-0.012146
7/17/2019	0.010682	-0.006593	-0.012384	-0.002755	0.004098
7/18/2019	-0.000813	-0.015487	-0.015674	-0.019337	-0.012245
7/19/2019	0.008950	0.006742	0.003185	0.002817	0.004132
7/22/2019	0.014516	0.004464	-0.012698	-0.005618	0.004115
7/23/2019	-0.008744	-0.002222	-0.009646	-0.025424	0.012295
7/24/2019	0.002406	-0.008909	0.000000	-0.023188	-0.020243
7/25/2019	0.000000	0.002247	0.012987	0.008902	0.000000
7/26/2019	-0.008800	-0.004484	-0.006410	-0.008824	-0.008264
7/29/2019	-0.000807	0.004505	0.006452	-0.008902	-0.004167
7/30/2019	0.004847	0.008969	0.019231	0.000000	0.025105
7/31/2019	-0.004823	-0.004444	0.003145	0.014970	0.004082
8/1/2019	0.003231	-0.006696	-0.025078	-0.026549	-0.024390
8/2/2019	-0.007246	0.000000	-0.012862	-0.018182	-0.033333
8/5/2019	-0.026764	-0.040449	-0.032573	-0.021605	-0.030172
8/6/2019	-0.020000	-0.039813	-0.023569	-0.012618	-0.013333
8/7/2019	0.022109	0.036585	0.013793	0.006390	0.036036
8/8/2019	-0.000832	0.009412	0.020408	0.031746	0.013043
8/9/2019	0.009992	0.009324	-0.006667	-0.024615	0.000000
8/12/2019	-0.004122	-0.006928	-0.006711	0.000000	-0.012876
8/13/2019	-0.004139	-0.004651	-0.006757	-0.003155	-0.004348
8/14/2019	-0.000831	0.011682	0.020408	0.025316	0.000000
8/15/2019	-0.001664	-0.018476	-0.013333	-0.009259	-0.008734
8/16/2019	-0.006667	-0.009412	-0.003378	-0.012461	0.017621
8/19/2019	0.009228	-0.007126	-0.003390	-0.006309	-0.004329
8/20/2019	-0.004988	-0.019139	0.003401	-0.015873	-0.030435
8/21/2019	-0.001671	-0.012195	-0.020339	-0.022581	-0.026906
8/22/2019	0.004184	0.004938	0.000000	0.003300	0.004608
8/23/2019	-0.000833	0.002457	-0.006920	0.003289	0.004587
8/26/2019	-0.000834	-0.002451	-0.017422	-0.016393	-0.018265
8/27/2019	0.002504	0.031941	-0.003546	0.010000	-0.023256
8/28/2019	-0.001665	-0.002381	0.003559	0.003300	-0.009524

8/29/2019	0.001668	0.002387	0.003546	-0.009868	-0.024038
8/30/2019	0.015820	0.016667	0.024735	0.023256	-0.014778
9/2/2019	-0.016393	-0.011710	-0.010345	-0.009740	0.005000
9/3/2019	0.009167	-0.016588	-0.038328	-0.022951	0.004975
9/4/2019	-0.005780	0.002410	0.003623	-0.003356	0.019802
9/5/2019	0.003322	0.014423	0.007220	0.013468	0.019417
9/6/2019	-0.002483	0.011848	0.010753	0.009967	0.000000
9/9/2019	0.001660	-0.023419	-0.010638	-0.006579	-0.009524
9/10/2019	0.003314	0.004796	0.010753	0.026490	0.000000
9/11/2019	0.007432	0.014320	0.014184	0.032258	0.048077
9/12/2019	-0.013115	0.007059	0.000000	-0.015625	0.013761
9/13/2019	0.001661	0.007009	0.006993	-0.003175	-0.009050
9/16/2019	-0.004146	-0.027842	-0.027778	-0.022293	-0.018265
9/17/2019	0.004163	0.014320	-0.003571	0.009772	0.027907
9/18/2019	0.001658	-0.002353	0.032258	0.019355	0.027149
9/19/2019	-0.001656	-0.004717	-0.013889	-0.015823	-0.004405
9/20/2019	-0.006633	-0.014218	-0.003521	-0.016077	0.000000
9/23/2019	0.005843	0.004808	-0.010601	-0.009804	-0.004425
9/24/2019	-0.013278	-0.016746	-0.007143	-0.016502	-0.022222
9/25/2019	-0.001682	-0.007299	-0.007194	0.003356	0.000000
9/26/2019	0.021061	0.031863	0.028986	0.010033	-0.018182
9/27/2019	0.001650	-0.007126	-0.017606	-0.016556	-0.037037
9/30/2019	0.000000	-0.014354	0.000000	-0.010101	-0.057692
10/1/2019	-0.004942	-0.012136	-0.010753	-0.010204	0.010204
10/2/2019	0.001656	-0.034398	-0.054348	-0.048110	-0.027778
10/3/2019	-0.001653	-0.030534	-0.019157	-0.003610	-0.018182
10/4/2019	0.000828	0.036745	0.000000	-0.003623	-0.031746
10/7/2019	0.004136	-0.012658	-0.007813	-0.029091	-0.008197
10/8/2019	0.004942	0.007692	0.023622	0.022472	0.002755
10/9/2019	-0.004918	0.007634	-0.011538	-0.010989	-0.013736
10/10/2019	0.006590	-0.017677	0.015564	0.000000	0.002786
10/11/2019	0.002455	0.007712	0.003831	0.033333	0.050000
10/14/2019	0.012245	0.000000	0.007634	-0.007168	0.007937
10/15/2019	-0.004032	0.005102	-0.003788	0.032491	0.000000
10/16/2019	0.006478	0.012690	0.007605	0.013986	0.002625
10/17/2019	-0.016090	0.015038	0.011321	0.017241	-0.002618
10/18/2019	0.007359	0.029630	0.011194	0.013559	0.005249

10/21/2019	0.009740	-0.011990	0.003690	-0.013378	0.002611
10/22/2019	0.012862	0.004854	0.003676	-0.006780	-0.002604
10/23/2019	-0.003968	0.009662	0.036630	0.030717	0.007833
10/24/2019	0.003984	0.028708	0.021201	0.046358	0.041451
10/25/2019	-0.015873	-0.016279	-0.031142	-0.009494	0.000000
10/28/2019	0.000806	0.000000	0.000000	-0.006390	-0.007463
10/29/2019	0.002417	0.000000	0.014286	-0.006431	-0.030075
10/30/2019	0.007235	0.004728	-0.010563	0.003236	-0.012920
10/31/2019	0.003990	-0.009412	0.000000	-0.009677	-0.026178
11/1/2019	0.005564	-0.007126	-0.007117	0.000000	-0.005376
11/4/2019	-0.007905	-0.004785	-0.014337	-0.006515	-0.021622
11/5/2019	0.013546	0.033654	0.047273	0.013115	0.030387
11/6/2019	-0.010220	-0.032558	-0.031250	-0.029126	-0.002681
11/7/2019	-0.001589	-0.038462	0.003584	0.013333	-0.008065
11/8/2019	-0.000796	-0.002500	0.014286	0.009868	0.024390
11/11/2019	0.002389	0.002506	-0.007042	-0.016287	-0.013228
11/12/2019	-0.004766	0.000000	-0.003546	0.006623	0.005362
11/13/2019	0.002394	-0.010000	-0.021352	-0.032895	-0.018667
11/14/2019	-0.001592	-0.005051	0.000000	-0.006803	-0.002717
11/15/2019	0.000797	0.038071	0.010909	0.020548	0.046322
11/18/2019	0.000797	0.007335	0.003597	-0.003356	0.018229
11/19/2019	0.005573	0.016990	0.025090	0.023569	0.058824
11/20/2019	0.005542	0.007160	-0.006993	0.006579	0.004831
11/21/2019	-0.007874	0.000000	0.010563	0.006536	0.033654
11/22/2019	0.000794	-0.002370	-0.013937	-0.006494	-0.023256
11/25/2019	-0.004758	-0.019002	-0.014134	-0.019608	-0.009524
11/26/2019	0.001594	0.004843	-0.007168	0.000000	0.038462
11/27/2019	0.002387	0.004819	-0.003610	-0.003333	-0.018519
11/28/2019	-0.007937	-0.028777	-0.018116	-0.010033	-0.033019
11/29/2019	0.004800	0.009877	0.029520	0.013514	0.039024
12/2/2019	0.023089	0.029340	0.017921	0.006667	0.018779
12/3/2019	-0.007782	-0.009501	0.010563	0.000000	0.023041
12/4/2019	-0.001569	-0.009592	-0.013937	-0.016556	-0.009009
12/5/2019	-0.003928	0.021792	0.014134	0.003367	0.009091
12/6/2019	0.008675	-0.011848	0.000000	0.016779	-0.022523
12/9/2019	0.000000	0.002398	0.010453	0.000000	0.009217
12/10/2019	-0.004691	-0.002392	0.017241	0.003300	-0.022831

12/11/2019	0.002357	0.009592	-0.003390	-0.009868	-0.018692
12/12/2019	-0.006270	0.009501	-0.006803	0.000000	0.004762
12/13/2019	0.003155	0.007059	0.010274	0.016611	0.028436
12/16/2019	0.000000	0.011682	-0.003390	0.006536	-0.004608
12/17/2019	0.022013	0.004619	0.000000	0.000000	0.009259
12/18/2019	0.039231	0.011494	0.023810	0.016234	0.004587
12/19/2019	-0.022946	-0.011364	0.009967	0.000000	-0.018265
12/20/2019	0.009091	0.002299	0.013158	-0.003195	-0.009302
12/23/2019	0.000000	0.020642	0.003247	0.016026	-0.004695
12/26/2019	0.003003	-0.008989	0.009709	0.003155	0.004717
12/27/2019	0.002246	0.004535	-0.006410	-0.003145	0.009390
12/30/2019	-0.001494	-0.006772	-0.009677	-0.009464	-0.013953

2. Return saham syariah

Tanggal	INCO	ADRO	PTBA	ICBP	UNTR
7/1/2016	0.000000	0.000000	0.000000	0.000000	0.000000
7/11/2016	0.074380	0.045198	0.047468	0.027965	0.018581
7/12/2016	0.133333	0.048649	0.042296	-0.001377	0.028192
7/13/2016	0.090498	0.056701	0.118841	-0.002874	0.041935
7/14/2016	-0.041494	0.014634	-0.033679	-0.020173	-0.034056
7/15/2016	0.004329	-0.043269	0.032172	0.000000	-0.006410
7/18/2016	0.012931	0.035176	0.038961	-0.004412	0.032258
7/19/2016	0.051064	-0.004854	-0.020000	0.011817	0.012500
7/20/2016	0.008097	0.009756	0.020408	0.018978	-0.012346
7/21/2016	0.004016	0.019324	-0.027500	-0.014327	-0.006250
7/22/2016	0.032000	-0.004739	-0.005141	0.010174	-0.003145
7/25/2016	-0.015504	0.019048	0.038760	0.010072	0.009464
7/26/2016	-0.059055	-0.009346	-0.017413	0.019943	-0.018750
7/27/2016	0.016736	-0.014151	0.002532	0.005587	-0.019108
7/28/2016	0.045267	0.014354	0.032828	-0.016667	0.014610
7/29/2016	0.007874	-0.018868	-0.036675	-0.028249	0.008000
8/1/2016	0.019531	0.000000	-0.002538	0.037791	0.025397
8/2/2016	0.007663	0.062500	0.017812	-0.014006	0.006192
8/3/2016	-0.038023	0.031674	0.030000	0.000000	0.003077
8/4/2016	-0.011858	-0.026316	0.036408	0.005682	0.079755
8/5/2016	0.048000	0.031532	-0.030445	0.008475	-0.017045
8/8/2016	0.019084	0.004367	-0.009662	-0.011204	0.007225

8/9/2016	-0.014981	0.043478	0.012195	-0.008499	-0.015782
8/10/2016	-0.022814	-0.037500	-0.021687	0.000000	0.043732
8/11/2016	-0.003891	-0.060606	-0.014778	-0.002857	0.008380
8/12/2016	0.023438	0.046083	0.000000	-0.014327	-0.019391
8/15/2016	-0.015267	-0.013216	-0.015000	0.005814	0.011299
8/16/2016	0.003876	0.022321	0.022843	0.008671	-0.008380
8/18/2016	0.092664	0.021834	0.029777	0.054441	-0.014085
8/19/2016	0.021201	-0.055556	-0.028916	-0.019022	-0.040000
8/22/2016	-0.010381	0.009050	-0.014888	0.024931	0.028274
8/23/2016	-0.041958	-0.031390	-0.002519	0.010811	0.013025
8/24/2016	0.025547	-0.018519	-0.010101	-0.005348	0.015714
8/25/2016	-0.039146	0.037736	-0.002551	0.034946	0.012658
8/26/2016	0.000000	-0.018182	-0.010230	0.015584	-0.016667
8/29/2016	0.003704	-0.013889	-0.033592	-0.028133	-0.005650
8/30/2016	-0.011070	0.065728	0.013369	0.021053	0.062500
8/31/2016	-0.014925	0.013216	0.047493	0.028351	0.002674
9/1/2016	0.011364	0.030435	-0.012594	0.002506	0.002667
9/2/2016	-0.003745	-0.012658	-0.010204	-0.030000	0.015957
9/5/2016	0.056391	0.042735	0.030928	-0.025773	-0.030105
9/6/2016	0.024911	0.004098	0.010000	0.002646	0.039136
9/7/2016	0.013889	0.016327	0.027228	0.023747	-0.028571
9/8/2016	-0.006849	0.020080	-0.026506	0.010309	-0.037433
9/9/2016	-0.027586	0.000000	0.002475	-0.038265	-0.027778
9/13/2016	-0.021277	-0.082677	-0.059259	0.000000	-0.002857
9/14/2016	-0.050725	-0.038627	-0.028871	-0.042440	-0.035817
9/15/2016	0.015267	0.040179	0.043243	0.047091	0.040119
9/16/2016	-0.015038	0.000000	-0.005181	0.002646	0.020000
9/19/2016	0.015267	0.017167	0.007813	0.023747	-0.001401
9/20/2016	0.011278	-0.004219	-0.020672	-0.010309	-0.008415
9/21/2016	-0.003717	-0.008475	0.031662	0.000000	-0.004243
9/22/2016	0.059701	0.012821	0.007673	-0.013021	0.021307
9/23/2016	0.000000	0.021097	0.017766	0.002639	-0.002782
9/26/2016	-0.045775	-0.008264	-0.017456	-0.015789	-0.040446
9/27/2016	0.095941	0.008333	-0.005076	-0.005348	0.052326
9/28/2016	0.000000	-0.008264	-0.010204	0.034946	0.008287
9/29/2016	-0.006734	0.066667	0.033505	0.010390	0.013699
9/30/2016	0.000000	-0.058594	-0.039900	-0.025707	-0.043243

10/3/2016	0.061017	0.078838	0.033766	0.029024	0.036723
10/4/2016	-0.054313	0.003846	0.032663	0.000000	0.005450
10/5/2016	-0.070946	-0.011494	-0.002433	-0.002564	0.013550
10/6/2016	-0.018182	0.054264	0.039024	0.000000	0.032086
10/7/2016	-0.011111	0.011029	0.018779	-0.015424	0.007772
10/10/2016	0.000000	0.007273	0.032258	0.005222	-0.030848
10/11/2016	0.018727	0.010830	0.042411	0.018182	0.031830
10/12/2016	0.014706	0.003571	-0.004283	0.000000	-0.017995
10/13/2016	0.000000	0.000000	-0.002151	-0.033163	0.015707
10/14/2016	-0.007246	0.014235	0.008621	0.034301	-0.010309
10/17/2016	0.003650	0.024561	0.061966	-0.020408	0.031250
10/18/2016	0.050909	-0.013699	-0.018109	-0.007813	0.000000
10/19/2016	-0.013841	0.062500	0.026639	-0.007874	0.015152
10/20/2016	0.007018	-0.013072	-0.001996	0.002646	-0.002488
10/21/2016	-0.059233	-0.006623	-0.040000	0.010554	0.007481
10/24/2016	-0.011111	0.016667	0.014583	-0.007833	0.006188
10/25/2016	0.003745	0.000000	0.008214	0.010526	0.020910
10/26/2016	-0.014925	0.019672	0.032587	-0.007813	0.019277
10/27/2016	0.015152	-0.003215	-0.013807	0.005249	0.018913
10/28/2016	-0.018657	0.019355	-0.038000	-0.005222	-0.020882
10/31/2016	0.034221	0.003165	-0.010395	-0.013123	0.024882
11/1/2016	-0.014706	0.034700	0.065126	-0.021277	0.030058
11/2/2016	-0.003731	0.048780	0.000000	-0.005435	0.000000
11/3/2016	-0.029963	-0.046512	-0.069034	-0.038251	-0.019080
11/4/2016	0.019305	0.018293	0.057203	0.034091	0.000000
11/7/2016	0.079545	0.008982	0.046092	0.019231	0.019451
11/8/2016	0.052632	-0.032641	-0.013410	0.032345	0.030303
11/9/2016	0.006667	-0.036810	0.000000	-0.013055	-0.009804
11/10/2016	0.092715	0.050955	0.040777	-0.002646	0.024202
11/11/2016	0.060606	0.006061	0.014925	-0.068966	-0.018260
11/14/2016	-0.057143	-0.033133	-0.056985	-0.025641	-0.045952
11/15/2016	-0.063636	-0.087227	-0.105263	0.011696	-0.050459
11/16/2016	0.051780	0.047782	0.091503	0.020231	0.106280
11/17/2016	-0.015385	-0.013029	-0.047904	0.031161	-0.043668
11/18/2016	-0.028125	-0.009901	-0.067086	0.000000	-0.027397
11/21/2016	-0.003215	0.020000	0.000000	-0.035714	-0.024648
11/22/2016	0.035484	0.058824	0.038202	-0.005698	0.031288

11/23/2016	0.049844	0.006173	0.030303	0.005731	0.022170
11/24/2016	0.008902	0.009202	-0.039916	-0.025641	-0.019406
11/25/2016	-0.008824	-0.003040	0.032823	-0.032164	0.019790
11/28/2016	0.038576	0.024390	-0.021186	0.009063	-0.018265
11/29/2016	0.000000	-0.029762	0.000000	0.008982	0.012791
11/30/2016	-0.034286	-0.061350	0.021645	0.026706	-0.035591
12/1/2016	0.026627	0.052288	0.027542	-0.002890	0.059524
12/2/2016	-0.025937	0.034161	0.014433	0.014493	0.032584
12/5/2016	0.014793	0.039039	0.095528	0.014286	0.022851
12/6/2016	-0.017493	0.000000	-0.031540	-0.019718	-0.010638
12/7/2016	0.000000	-0.011561	-0.021073	-0.002874	-0.009677
12/8/2016	-0.038576	-0.035088	-0.013699	0.020173	-0.018458
12/9/2016	0.021605	0.018182	0.007937	0.000000	0.008850
12/13/2016	-0.018127	0.011905	-0.005906	0.011299	-0.014254
12/14/2016	-0.003077	-0.005882	-0.001980	-0.002793	-0.006674
12/15/2016	0.003086	-0.011834	0.007937	-0.025210	0.010078
12/16/2016	-0.003077	-0.005988	-0.015748	-0.008621	-0.025499
12/19/2016	-0.055556	0.021084	-0.016000	-0.034783	-0.039818
12/20/2016	-0.058824	0.002950	-0.016260	-0.018018	-0.018957
12/21/2016	-0.020833	-0.017647	0.006198	-0.030581	-0.026570
12/22/2016	-0.042553	0.005988	0.000000	-0.018927	-0.031017
12/23/2016	0.007407	-0.014881	-0.030801	-0.028939	0.007682
12/27/2016	-0.014706	0.012085	0.025424	0.052980	0.019060
12/28/2016	0.033582	0.008955	0.004132	0.047170	0.036160
12/29/2016	0.025271	0.000000	0.028807	0.036036	0.008424
12/30/2016	-0.007042	0.002959	0.000000	-0.005797	0.014320
1/2/2017	0.000000	0.000000	0.000000	0.000000	0.000000
1/3/2017	-0.014184	0.026549	0.022000	0.002915	-0.011765
1/4/2017	-0.021583	-0.022989	-0.031311	0.000000	0.019048
1/5/2017	0.044118	-0.020588	-0.026263	-0.002907	0.026869
1/6/2017	0.031690	0.018018	0.018672	-0.005831	-0.012514
1/9/2017	-0.027304	0.014749	-0.020367	0.032258	0.009217
1/10/2017	0.010526	-0.020349	0.002079	-0.002841	0.002283
1/11/2017	0.048611	0.035608	0.004149	-0.022792	-0.006834
1/12/2017	-0.023179	-0.017192	0.008264	-0.002915	-0.026376
1/13/2017	-0.159322	-0.008746	0.006148	-0.002924	0.032980
1/16/2017	0.012097	0.000000	-0.006110	-0.008798	-0.017104

1/17/2017	-0.007968	0.000000	-0.010246	-0.002959	-0.006961
1/18/2017	-0.008032	0.011765	-0.002070	0.017804	0.014019
1/19/2017	-0.028340	0.005814	-0.002075	0.002915	0.003456
1/20/2017	-0.041667	0.000000	-0.018711	-0.011628	0.010333
1/23/2017	-0.013043	-0.002890	-0.008475	-0.005882	-0.001136
1/24/2017	0.004405	0.000000	-0.034188	0.002959	0.037543
1/25/2017	0.008772	0.008696	-0.028761	0.014749	-0.007675
1/26/2017	0.052174	-0.005747	-0.015945	-0.005814	0.012155
1/27/2017	-0.033058	-0.002890	0.002315	0.000000	-0.013100
1/30/2017	-0.004274	-0.005797	0.046189	-0.008772	-0.009956
1/31/2017	0.017167	-0.011662	0.024283	-0.008850	-0.023464
2/1/2017	0.080169	0.032448	0.008621	0.002976	0.020595
2/2/2017	0.109375	-0.005714	-0.008547	0.002967	0.013453
2/3/2017	-0.024648	-0.011494	0.012931	0.000000	0.017699
2/6/2017	-0.018051	0.011628	-0.046809	0.014793	0.003261
2/7/2017	0.007353	-0.005747	-0.017857	-0.011662	0.001083
2/8/2017	-0.025547	-0.005780	0.036364	0.002950	-0.004329
2/9/2017	-0.007491	0.002907	-0.028509	0.000000	-0.010870
2/10/2017	0.033962	-0.008696	-0.006772	0.005882	0.010989
2/13/2017	0.025547	-0.017544	0.006818	-0.005848	0.014130
2/14/2017	-0.021352	-0.020833	-0.013544	-0.005882	-0.012862
2/15/2017	0.000000	0.000000	0.000000	0.000000	0.000000
2/16/2017	0.000000	0.033435	-0.016018	-0.005917	0.034745
2/17/2017	0.014545	-0.023529	-0.006977	-0.002976	0.002099
2/20/2017	0.000000	0.021084	0.039813	0.000000	0.023037
2/21/2017	-0.017921	0.014749	0.013514	-0.014925	0.002047
2/22/2017	-0.025547	-0.008721	-0.004444	0.000000	-0.004086
2/23/2017	-0.029963	0.005865	0.008929	0.006061	0.011282
2/24/2017	-0.050193	-0.008746	-0.013274	0.003012	0.034483
2/27/2017	0.040650	0.000000	-0.011211	0.003003	-0.022549
2/28/2017	-0.003906	-0.002941	0.013605	-0.002994	-0.011033
3/1/2017	-0.015686	-0.011799	-0.004474	-0.006006	-0.030426
3/2/2017	0.019920	0.005970	0.006742	-0.003021	0.049163
3/3/2017	-0.015625	0.000000	-0.020089	-0.003030	0.000997
3/6/2017	0.011905	0.000000	-0.020501	0.009119	0.043825
3/7/2017	-0.019608	0.005935	0.018605	-0.009036	-0.007634
3/8/2017	-0.016000	0.000000	-0.013699	-0.003040	-0.015385

3/9/2017	-0.044715	-0.005900	0.004630	-0.006098	0.011719
3/10/2017	-0.012766	-0.050445	-0.043779	0.000000	-0.005792
3/13/2017	0.000000	0.015625	0.002410	0.021472	-0.013592
3/14/2017	-0.008621	0.012308	0.038462	0.006006	0.021654
3/15/2017	-0.004348	0.003040	0.013889	0.011940	-0.023121
3/16/2017	0.013100	0.018182	0.041096	0.041298	0.013807
3/17/2017	0.008621	0.014881	0.002193	-0.014164	0.050584
3/20/2017	0.008547	0.000000	-0.008753	0.002874	-0.034259
3/21/2017	-0.008475	0.014663	0.013245	0.000000	0.045062
3/22/2017	-0.004274	0.000000	0.008715	0.008596	0.020183
3/23/2017	0.008584	0.005780	0.004320	-0.002841	-0.007194
3/24/2017	-0.012766	0.017241	0.017204	-0.019943	0.006341
3/27/2017	-0.021552	0.016949	-0.006342	-0.020349	-0.022502
3/29/2017	0.017621	0.011111	0.042553	-0.005935	0.025783
3/30/2017	-0.004329	0.000000	0.055102	-0.014925	0.000000
3/31/2017	0.039130	-0.038462	0.021277	-0.012121	-0.048474
4/3/2017	-0.033473	0.031429	0.000000	0.033742	0.050000
4/4/2017	-0.012987	0.069252	0.049242	-0.002967	0.047619
4/5/2017	0.000000	0.000000	0.000000	0.000000	0.000000
4/6/2017	0.021930	-0.018135	-0.072202	-0.020833	-0.005146
4/7/2017	-0.021459	-0.002639	0.019455	-0.006079	-0.010345
4/10/2017	0.000000	0.000000	-0.005725	0.000000	-0.003484
4/11/2017	-0.004386	-0.010582	-0.003839	-0.006116	0.013986
4/12/2017	-0.008811	0.010695	-0.077071	-0.003077	0.000000
4/13/2017	-0.008889	-0.015873	0.043841	0.003086	-0.029310
4/17/2017	0.000000	-0.005376	0.026000	0.003077	-0.032860
4/18/2017	-0.013453	-0.008108	-0.017544	0.006135	0.022957
4/19/2017	0.000000	0.000000	0.000000	0.000000	0.000000
4/20/2017	-0.009091	0.002725	0.000000	-0.003049	-0.016158
4/21/2017	-0.013761	0.000000	-0.011905	0.027523	-0.017336
4/25/2017	0.000000	0.002717	0.018072	0.011905	-0.012071
4/26/2017	0.000000	-0.013550	0.000000	0.002941	0.048872
4/27/2017	0.009302	0.010989	0.013807	0.020528	-0.023297
4/28/2017	0.023041	-0.035326	-0.013619	0.008621	-0.012844
5/2/2017	0.018018	-0.030986	-0.025641	-0.025641	-0.033457
5/3/2017	-0.066372	-0.052326	0.002024	0.005848	-0.003846
5/4/2017	-0.028436	-0.009202	-0.040404	0.000000	-0.032819

5/5/2017	-0.034146	-0.034056	-0.031579	0.002907	0.000000
5/8/2017	-0.002525	0.035256	0.013043	-0.002899	0.033932
5/9/2017	-0.022785	-0.040248	-0.023605	0.002907	-0.015444
5/10/2017	-0.015544	-0.035484	-0.046154	0.008696	-0.017647
5/12/2017	-0.007895	-0.010033	0.011521	-0.011494	-0.026946
5/15/2017	0.000000	0.003378	-0.009112	0.002907	0.007179
5/16/2017	0.055703	-0.013468	-0.002299	-0.005797	-0.029532
5/17/2017	-0.040201	-0.037543	-0.025346	0.014577	-0.030430
5/18/2017	-0.005236	0.017730	0.002364	0.000000	0.015152
5/19/2017	0.015789	0.020906	0.018868	0.045977	0.029851
5/22/2017	0.007772	-0.020478	-0.004630	-0.038462	0.010352
5/23/2017	-0.020566	0.027875	0.002326	0.008571	0.008197
5/24/2017	-0.015748	0.003390	-0.002320	0.000000	-0.020325
5/26/2017	0.008000	0.003378	0.000000	-0.002833	0.019710
5/29/2017	-0.007937	-0.013468	-0.002326	0.002841	0.059003
5/30/2017	-0.005333	-0.003413	-0.006993	-0.016997	0.040346
5/31/2017	0.021448	0.041096	0.023474	0.002882	0.025854
6/1/2017	0.000000	0.000000	0.000000	0.000000	0.000000
6/2/2017	-0.013123	-0.032895	-0.009174	0.000000	-0.044104
6/5/2017	-0.007979	0.051020	0.002315	0.011494	0.000000
6/6/2017	-0.008043	0.038835	0.020785	-0.005682	0.015066
6/7/2017	0.016216	-0.003115	0.029412	-0.002857	0.007421
6/8/2017	-0.007979	-0.015625	-0.015385	-0.028653	0.001842
6/9/2017	0.002681	-0.012698	0.004464	-0.008850	-0.025735
6/12/2017	0.010695	-0.009646	-0.017778	0.008929	0.021698
6/13/2017	0.039683	0.038961	0.013575	0.002950	0.009234
6/14/2017	-0.005089	0.037500	0.031250	0.029412	0.013724
6/15/2017	0.012788	-0.009036	-0.012987	0.000000	-0.008123
6/16/2017	-0.042929	-0.024316	0.000000	0.000000	-0.035487
6/19/2017	0.000000	-0.024922	0.002193	-0.008571	-0.001887
6/20/2017	0.000000	0.047923	0.037199	0.011527	0.020794
6/21/2017	-0.005277	-0.027439	0.000000	0.002849	0.007407
6/22/2017	-0.018568	-0.009404	0.008439	0.000000	0.009191
6/23/2017	0.000000	0.000000	0.000000	0.000000	0.000000
6/26/2017	0.000000	0.000000	0.000000	0.000000	0.000000
6/27/2017	0.000000	0.000000	0.000000	0.000000	0.000000
6/28/2017	0.000000	0.000000	0.000000	0.000000	0.000000

6/29/2017	0.000000	0.000000	0.000000	0.000000	0.000000
6/30/2017	0.000000	0.000000	0.000000	0.000000	0.000000
7/3/2017	0.016216	0.031646	0.008368	0.000000	0.051002
7/4/2017	-0.013298	-0.030675	0.029046	0.000000	-0.012132
7/5/2017	0.016173	0.025316	-0.024194	-0.014205	-0.023684
7/6/2017	-0.013263	0.009259	0.012397	-0.017291	0.009883
7/7/2017	0.002688	-0.015291	0.012245	-0.002933	-0.032028
7/10/2017	0.000000	-0.009317	0.000000	0.000000	0.015625
7/11/2017	-0.010724	0.012539	-0.028226	-0.002941	0.012670
7/12/2017	0.035230	0.030960	0.037344	0.005900	-0.001787
7/13/2017	0.026178	-0.024024	-0.008000	0.008798	0.002686
7/14/2017	0.000000	0.024615	0.008065	0.011628	0.000000
7/17/2017	0.066327	0.021021	0.036000	-0.005747	-0.001786
7/18/2017	-0.019139	-0.002941	-0.005792	-0.002890	0.000894
7/19/2017	0.039024	0.041298	0.025243	-0.014493	0.020554
7/20/2017	0.009390	0.031161	0.007576	0.000000	0.010508
7/21/2017	0.018605	0.000000	-0.011278	-0.002941	-0.000867
7/24/2017	-0.009132	0.008242	-0.011407	0.020649	-0.018213
7/25/2017	0.059908	-0.002725	0.007692	0.002890	0.021201
7/26/2017	0.034783	-0.016393	-0.011450	-0.005764	-0.001730
7/27/2017	0.004202	0.000000	0.001931	-0.002899	0.003466
7/28/2017	0.041841	0.013889	0.015414	-0.014535	0.013817
7/31/2017	-0.028112	-0.021918	-0.005693	-0.014749	0.025554
8/1/2017	0.012397	0.042017	0.020992	-0.002994	0.013289
8/2/2017	-0.008163	0.018817	0.005607	-0.003003	-0.003279
8/3/2017	0.000000	-0.026385	-0.009294	0.000000	-0.039474
8/4/2017	0.012346	0.013550	0.015009	0.000000	0.000000
8/7/2017	-0.036585	-0.010695	0.016636	-0.003012	-0.017123
8/8/2017	0.029536	0.010811	-0.014545	0.009063	0.017422
8/9/2017	0.081967	-0.034759	-0.033210	0.000000	0.021404
8/10/2017	-0.011364	0.024931	0.028626	-0.005988	0.020117
8/11/2017	-0.022989	-0.016216	-0.012987	0.006024	-0.027116
8/14/2017	-0.003922	0.016484	-0.005639	0.000000	0.010135
8/15/2017	0.003937	0.002703	-0.005671	0.005988	0.009197
8/16/2017	0.000000	0.013477	0.000000	0.032738	-0.006628
8/17/2017	0.000000	0.000000	0.000000	0.000000	0.000000
8/18/2017	0.066667	-0.002660	0.000000	0.002882	-0.016681

8/21/2017	0.029412	-0.005333	-0.019011	-0.002874	-0.019508
8/22/2017	0.067857	-0.002681	0.015504	0.005764	0.022491
8/23/2017	-0.003344	0.051075	0.003817	0.000000	-0.001692
8/24/2017	-0.020134	0.005115	0.003802	-0.014327	0.033051
8/25/2017	-0.010274	-0.010178	-0.007576	0.029070	-0.004102
8/28/2017	0.013841	-0.028278	-0.017176	-0.005650	0.008237
8/29/2017	0.010239	-0.010582	0.007767	-0.014205	0.000000
8/30/2017	0.040541	0.010695	-0.042389	-0.002882	-0.009804
8/31/2017	-0.035714	-0.034392	-0.004024	0.008671	0.000000
9/1/2017	0.000000	0.000000	0.000000	0.000000	0.000000
9/4/2017	0.013468	-0.005479	-0.054545	-0.005731	-0.019802
9/5/2017	-0.009967	0.024793	0.038462	-0.011527	0.023569
9/6/2017	0.003356	0.016129	0.010288	0.023324	-0.002467
9/7/2017	0.003344	-0.013228	-0.014257	-0.005698	0.054411
9/8/2017	-0.006667	0.010724	0.022727	0.000000	-0.011728
9/11/2017	0.000000	0.007958	-0.002020	-0.002865	0.007911
9/12/2017	0.013423	-0.018421	-0.014170	0.008621	-0.007849
9/13/2017	-0.016556	-0.080429	-0.172485	0.000000	-0.038766
9/14/2017	-0.043771	0.014577	-0.009926	-0.005698	-0.012346
9/15/2017	-0.038732	0.020115	-0.035088	-0.002865	0.035000
9/18/2017	0.010989	0.025352	0.077922	0.008621	-0.011272
9/19/2017	-0.028986	0.027473	0.007229	0.005698	0.013029
9/20/2017	0.041045	-0.005348	-0.002392	0.002833	0.028135
9/21/2017	0.000000	0.000000	0.000000	0.000000	0.000000
9/22/2017	-0.068100	-0.024194	-0.014388	0.002825	-0.040657
9/25/2017	0.019231	-0.033058	-0.029197	0.002817	-0.013040
9/26/2017	-0.003774	-0.025641	-0.007519	-0.011236	0.023947
9/27/2017	-0.015152	-0.023392	-0.068182	0.002841	-0.018548
9/28/2017	-0.030769	0.056886	0.084011	-0.011331	0.032046
9/29/2017	0.027778	0.033994	0.045000	0.000000	0.019108
10/2/2017	0.003861	-0.027397	-0.038278	0.017192	0.003125
10/3/2017	0.057692	0.002817	0.054726	-0.019718	0.028037
10/4/2017	0.058182	0.025281	0.004717	0.008621	0.016667
10/5/2017	-0.041237	0.002740	0.016432	-0.011396	-0.040984
10/6/2017	0.010753	0.024590	0.025404	-0.002882	0.010878
10/9/2017	-0.007092	0.008000	-0.009009	0.005780	0.018447
10/10/2017	0.042857	0.005291	-0.013636	0.000000	0.033962

10/11/2017	0.017123	-0.010526	0.039171	0.002874	0.000000
10/12/2017	0.006734	0.010638	-0.006652	-0.002865	0.013139
10/13/2017	0.003344	0.000000	-0.011161	0.014368	-0.012968
10/16/2017	-0.010000	-0.015789	-0.038375	-0.014164	0.005839
10/17/2017	-0.030303	0.016043	0.009390	0.017241	-0.012337
10/18/2017	-0.020833	-0.010526	0.016279	0.002825	0.025716
10/19/2017	0.017730	-0.007979	0.006865	0.005634	-0.015759
10/20/2017	0.041812	-0.005362	-0.036364	-0.022409	-0.039301
10/23/2017	0.000000	-0.002695	0.009434	0.014327	-0.025758
10/24/2017	0.013378	0.021622	0.009346	-0.014124	-0.003110
10/25/2017	-0.019802	0.005291	-0.006944	0.017192	0.090484
10/26/2017	-0.026936	-0.039474	0.027972	0.002817	-0.047210
10/27/2017	-0.031142	0.008219	-0.009070	0.000000	-0.018769
10/30/2017	0.042857	-0.002717	0.045767	-0.008427	0.043611
10/31/2017	0.006849	-0.005450	0.004376	-0.002833	0.016862
11/1/2017	0.027211	0.046575	0.017429	0.005682	0.045422
11/2/2017	0.009934	-0.005236	-0.008565	-0.025424	-0.020690
11/3/2017	0.009836	-0.002632	-0.002160	0.026087	-0.005634
11/6/2017	0.029221	0.002639	-0.012987	-0.011299	0.000000
11/7/2017	0.037855	0.000000	0.057018	-0.020000	0.013456
11/8/2017	-0.024316	-0.042105	-0.024896	-0.008746	-0.042628
11/9/2017	-0.009346	0.005495	0.004255	0.000000	-0.004380
11/10/2017	-0.018868	-0.008197	0.006356	0.002941	-0.040323
11/13/2017	0.003205	0.002755	0.010526	0.002933	0.004584
11/14/2017	0.006390	-0.002747	-0.016667	0.000000	0.019772
11/15/2017	-0.034921	-0.044077	-0.048729	0.002924	-0.024609
11/16/2017	-0.009868	0.011527	-0.008909	0.020408	0.015291
11/17/2017	-0.013289	0.008547	0.006742	0.022857	-0.003765
11/20/2017	-0.023569	-0.008475	-0.002232	-0.002793	-0.026455
11/21/2017	0.006897	-0.022792	-0.035794	-0.002801	-0.019410
11/22/2017	0.010274	0.017493	0.025522	-0.008427	0.029295
11/23/2017	-0.016949	-0.011461	-0.013575	-0.011331	-0.003846
11/24/2017	0.013793	-0.008696	-0.009174	-0.020057	-0.017761
11/27/2017	-0.013605	-0.008772	0.009259	0.014620	0.000000
11/28/2017	-0.041379	0.011799	-0.004587	0.000000	0.018868
11/29/2017	0.000000	0.034985	0.036866	0.011527	0.046296
11/30/2017	-0.007194	-0.042254	0.000000	-0.037037	-0.011799

12/1/2017	0.000000	0.000000	0.000000	0.000000	0.000000
12/4/2017	0.010870	0.044118	0.020000	0.035503	-0.014925
12/5/2017	-0.035842	0.002817	-0.023965	-0.011429	-0.008333
12/6/2017	-0.003717	-0.014045	-0.008929	0.023121	-0.001528
12/7/2017	0.007463	-0.025641	-0.013514	-0.019774	0.009946
12/8/2017	-0.003704	0.008772	0.009132	0.011527	-0.003030
12/11/2017	-0.029740	-0.008696	-0.011312	-0.008547	-0.013678
12/12/2017	0.026820	0.058480	0.006865	0.011494	-0.013867
12/13/2017	0.063433	0.002762	0.018182	-0.002841	0.034375
12/14/2017	-0.010526	-0.005510	0.000000	0.002849	0.008308
12/15/2017	0.010638	0.000000	0.017857	-0.008523	-0.009738
12/18/2017	0.017544	-0.002770	-0.008772	0.022923	0.001513
12/19/2017	0.006897	0.019444	0.088496	-0.005602	0.009063
12/20/2017	-0.023973	-0.019074	0.000000	0.005634	-0.017216
12/21/2017	-0.003509	0.038889	0.036585	0.016807	0.027418
12/22/2017	-0.014085	0.010695	-0.011765	-0.008264	0.015567
12/25/2017	0.000000	0.000000	0.000000	0.000000	0.000000
12/26/2017	0.000000	0.000000	0.000000	0.000000	0.000000
12/27/2017	0.010714	0.002646	-0.003968	0.000000	0.009489
12/28/2017	0.000000	-0.002639	-0.003984	-0.011111	0.000723
12/29/2017	0.021201	-0.015873	-0.016000	0.000000	0.023121
1/1/2018	0.000000	0.000000	0.000000	0.000000	0.000000
1/2/2018	0.048443	0.010753	0.016260	0.022472	-0.035311
1/3/2018	0.006601	-0.026596	-0.024000	0.000000	-0.031479
1/4/2018	0.019672	0.046448	0.016393	0.002747	0.027967
1/5/2018	0.019293	0.039164	0.052419	0.016438	0.041912
1/8/2018	0.000000	0.085427	0.022989	-0.029650	0.007763
1/9/2018	0.003155	0.009259	0.022472	-0.013889	0.005602
1/10/2018	0.006289	0.013761	-0.003663	-0.016901	0.027855
1/11/2018	-0.009375	-0.013575	0.029412	0.000000	-0.001355
1/12/2018	0.003155	0.022936	0.032143	0.014327	0.004749
1/15/2018	0.012579	0.000000	0.048443	0.000000	0.004051
1/16/2018	0.034161	-0.017937	0.009901	0.000000	0.004035
1/17/2018	0.006006	-0.009132	-0.013072	0.002825	0.010047
1/18/2018	-0.005970	0.000000	0.006623	0.000000	-0.013263
1/19/2018	0.015015	0.004608	0.026316	-0.019718	0.005376
1/22/2018	0.000000	0.059633	0.057692	0.000000	0.030080

1/23/2018	-0.005917	0.047619	0.006061	0.017241	0.049319
1/24/2018	0.020833	0.008264	0.003012	0.000000	-0.010513
1/25/2018	0.067055	0.004098	0.003003	-0.002825	-0.000625
1/26/2018	0.010929	-0.004082	-0.002994	0.000000	-0.008130
1/29/2018	0.043243	0.049180	0.030030	0.005666	0.003783
1/30/2018	-0.028497	-0.003906	-0.008746	-0.019718	-0.032663
1/31/2018	0.000000	-0.039216	0.000000	0.002874	0.010390
2/1/2018	0.013333	-0.020408	-0.017647	-0.002865	-0.002571
2/2/2018	0.000000	0.029167	-0.011976	0.011494	0.010309
2/5/2018	-0.034211	0.020243	0.000000	-0.005682	-0.015944
2/6/2018	-0.027248	-0.027778	-0.039394	0.000000	-0.022683
2/7/2018	0.039216	0.000000	0.000000	0.008571	0.021220
2/8/2018	-0.021563	-0.012245	-0.012618	0.014164	0.006494
2/9/2018	-0.035813	-0.041322	-0.025559	-0.002793	-0.003871
2/12/2018	0.011429	0.012931	0.013115	-0.002801	-0.024611
2/13/2018	0.019774	0.029787	0.058252	0.000000	0.000000
2/14/2018	0.005540	0.008264	-0.012232	0.005618	0.001992
2/15/2018	0.019284	0.012295	0.003096	0.002793	0.000663
2/16/2018	0.000000	0.000000	0.000000	0.000000	0.000000
2/19/2018	-0.005405	0.008097	0.024691	0.013928	0.011921
2/20/2018	-0.024457	-0.024096	0.003012	-0.024725	-0.022251
2/21/2018	-0.019499	0.016461	0.015015	-0.005634	-0.009371
2/22/2018	-0.025568	0.004049	-0.005917	0.008499	-0.030405
2/23/2018	-0.023324	0.000000	0.011905	0.002809	0.031359
2/26/2018	0.026866	-0.036290	-0.047059	0.000000	-0.010811
2/27/2018	0.008721	0.004184	-0.040123	0.008403	0.000000
2/28/2018	-0.023055	-0.020833	0.019293	-0.002778	-0.027322
3/1/2018	-0.026549	0.029787	0.000000	0.002786	0.025983
3/2/2018	-0.045455	-0.045455	-0.031546	0.011111	-0.022587
3/5/2018	-0.003175	0.004329	0.006515	-0.010989	-0.014706
3/6/2018	-0.022293	0.004310	-0.012945	-0.008333	0.025586
3/7/2018	-0.006515	-0.072961	-0.039344	-0.022409	-0.032571
3/8/2018	-0.026230	0.013889	-0.044369	0.008596	0.030802
3/9/2018	0.006734	-0.009132	0.032143	0.022727	0.006949
3/12/2018	0.063545	0.023041	0.038062	0.011111	0.006211
3/13/2018	-0.022013	-0.022523	-0.023333	-0.041209	-0.034294
3/14/2018	0.012862	-0.046083	-0.027304	-0.002865	-0.042614

3/15/2018	-0.006349	-0.009662	-0.021053	-0.008621	0.000000
3/16/2018	-0.022364	-0.004878	0.007168	0.014493	-0.033383
3/19/2018	-0.052288	0.000000	0.010676	0.008571	-0.002302
3/20/2018	0.013793	0.014706	0.010563	-0.028329	-0.013846
3/21/2018	0.051020	-0.014493	0.003484	0.002915	0.010920
3/22/2018	-0.019417	-0.009804	0.003472	0.017442	0.009259
3/23/2018	-0.049505	-0.012376	0.000000	-0.005714	-0.021407
3/26/2018	-0.017361	0.017544	0.013841	-0.017241	0.000000
3/27/2018	0.000000	0.004926	0.006826	-0.020468	0.000000
3/28/2018	-0.028269	0.000000	-0.013559	0.011940	-0.006250
3/29/2018	0.014545	0.044118	0.010309	-0.023599	0.006289
3/30/2018	0.000000	0.000000	0.000000	0.000000	0.000000
4/2/2018	0.028674	0.000000	0.040816	0.009063	0.004688
4/3/2018	0.045296	-0.004695	0.009804	-0.017964	-0.001555
4/4/2018	-0.006667	-0.037736	-0.012945	-0.006098	-0.003115
4/5/2018	0.000000	-0.009804	0.059016	0.006135	0.006250
4/6/2018	-0.010067	0.004950	-0.015480	-0.003049	0.000000
4/9/2018	0.023729	0.019704	0.009434	0.012232	0.070652
4/10/2018	0.013245	0.019324	0.028037	0.018127	0.034083
4/11/2018	0.019608	0.014218	0.036364	-0.002967	-0.002104
4/12/2018	-0.006410	-0.014019	0.000000	-0.005952	-0.010541
4/13/2018	0.041935	0.009479	0.002924	0.000000	-0.002841
4/16/2018	0.000000	0.000000	0.000000	0.000000	0.000000
4/17/2018	0.000000	0.000000	0.000000	0.000000	0.000000
4/18/2018	0.046440	-0.014085	0.014577	-0.002994	0.048433
4/19/2018	0.000000	0.000000	0.000000	0.000000	0.000000
4/20/2018	0.000000	0.000000	0.000000	0.000000	0.000000
4/23/2018	0.050296	0.076190	-0.037356	0.006006	0.021739
4/24/2018	-0.033803	-0.026549	-0.005970	-0.002985	0.007979
4/25/2018	0.000000	0.000000	0.000000	0.000000	0.000000
4/26/2018	0.000000	0.000000	0.000000	0.000000	0.000000
4/27/2018	0.000000	0.000000	0.000000	0.000000	0.000000
4/30/2018	-0.078717	-0.165909	-0.027027	0.038922	-0.100264
5/1/2018	0.000000	0.000000	0.000000	0.000000	0.000000
5/2/2018	0.037975	-0.032698	0.058642	0.002882	-0.024927
5/3/2018	-0.024390	-0.053521	-0.043732	-0.057471	0.007519
5/4/2018	-0.034375	-0.023810	0.021341	0.000000	0.003731

5/7/2018	0.003236	0.042683	-0.023881	0.045732	-0.024535
5/8/2018	0.006452	-0.049708	-0.003058	-0.014577	-0.016768
5/9/2018	0.000000	0.046154	0.052147	0.002959	0.025581
5/10/2018	0.000000	0.000000	0.000000	0.000000	0.000000
5/11/2018	0.032051	0.008824	0.005831	-0.011799	0.069539
5/14/2018	0.059006	-0.023324	0.031884	-0.002985	0.012014
5/15/2018	0.026393	0.023881	-0.008427	-0.017964	-0.030726
5/16/2018	-0.002857	0.049563	-0.008499	0.012195	0.002161
5/17/2018	0.022923	0.044444	0.014286	-0.015060	0.043134
5/18/2018	0.033613	0.013298	0.039437	-0.021407	-0.012405
5/21/2018	0.032520	0.023622	0.037940	0.000000	-0.014655
5/22/2018	-0.031496	-0.010256	-0.010444	0.012500	0.019122
5/23/2018	-0.010840	-0.054404	-0.005277	-0.009259	0.012509
5/24/2018	0.027397	0.005479	-0.002653	0.028037	0.014413
5/25/2018	0.024000	-0.002725	-0.002660	0.006061	0.014885
5/28/2018	-0.023438	-0.005464	-0.024000	0.039157	-0.037333
5/29/2018	0.000000	0.000000	0.000000	0.000000	0.000000
5/30/2018	0.005333	0.005495	0.032787	-0.014493	0.019391
5/31/2018	0.023873	0.030055	0.005291	0.023529	-0.047554
6/1/2018	0.000000	0.000000	0.000000	0.000000	0.000000
6/4/2018	0.015544	0.045093	0.042105	-0.002874	0.019971
6/5/2018	0.028061	0.030457	0.010101	0.011527	0.020979
6/6/2018	0.054591	-0.022167	-0.022500	0.008547	-0.028082
6/7/2018	-0.018824	0.002519	0.007673	0.016949	0.019732
6/8/2018	0.011990	-0.027638	0.032995	-0.016667	-0.038010
6/11/2018	0.000000	0.000000	0.000000	0.000000	0.000000
6/12/2018	0.000000	0.000000	0.000000	0.000000	0.000000
6/13/2018	0.000000	0.000000	0.000000	0.000000	0.000000
6/14/2018	0.000000	0.000000	0.000000	0.000000	0.000000
6/15/2018	0.000000	0.000000	0.000000	0.000000	0.000000
6/18/2018	0.000000	0.000000	0.000000	0.000000	0.000000
6/19/2018	0.000000	0.000000	0.000000	0.000000	0.000000
6/20/2018	-0.047393	0.033592	0.041769	-0.028249	-0.037356
6/21/2018	0.002488	0.005000	-0.033019	-0.040698	-0.003731
6/22/2018	0.014888	-0.039801	0.012195	0.018182	-0.011985
6/25/2018	0.019560	-0.031088	-0.004819	0.041667	-0.005307
6/26/2018	-0.043165	-0.061497	-0.007264	0.005714	-0.008384

6/27/2018	-0.007519	-0.028490	-0.014634	-0.025568	-0.009992
6/28/2018	-0.030303	-0.023460	-0.049505	-0.005831	-0.030280
6/29/2018	0.052083	0.075075	0.033854	0.038123	0.012010
7/2/2018	0.009901	-0.025140	0.007557	0.002825	0.025316
7/3/2018	-0.014706	-0.014327	0.000000	-0.005634	-0.015432
7/4/2018	0.012438	0.029070	0.000000	0.028329	0.006270
7/5/2018	0.027027	0.031073	0.000000	-0.019284	0.035826
7/6/2018	-0.028708	-0.021918	-0.012500	-0.022472	0.009774
7/9/2018	-0.009852	0.028011	0.012658	0.008621	-0.029039
7/10/2018	0.002488	0.016349	-0.002500	0.014245	0.024540
7/11/2018	0.062035	0.018767	0.020050	-0.011236	-0.017964
7/12/2018	-0.018692	-0.015789	0.039312	0.002841	-0.024390
7/13/2018	0.071429	-0.005348	-0.014184	0.005666	0.032813
7/16/2018	-0.004444	-0.032258	0.016787	-0.005634	0.007564
7/17/2018	-0.029018	-0.022222	0.033019	-0.016997	-0.015015
7/18/2018	0.000000	0.059659	-0.011416	-0.002882	0.006098
7/19/2018	-0.004598	0.002681	0.016166	-0.005780	-0.000758
7/20/2018	-0.013857	-0.024064	-0.031818	0.000000	-0.020470
7/23/2018	-0.002342	-0.013699	0.011737	0.008721	0.021672
7/24/2018	0.000000	0.000000	-0.016241	0.000000	-0.003030
7/25/2018	0.011737	0.044444	0.018868	-0.014409	0.050152
7/26/2018	0.009281	-0.015957	0.025463	0.011696	0.010854
7/27/2018	0.041379	0.062162	0.038375	-0.005780	0.013601
7/30/2018	0.028698	0.063613	-0.052174	0.020349	0.014831
7/31/2018	-0.062232	-0.088517	0.027523	-0.005698	-0.018789
8/1/2018	0.038902	0.039370	0.013393	0.000000	0.020567
8/2/2018	-0.037445	-0.022727	-0.011013	0.005731	-0.012509
8/3/2018	-0.050343	0.002584	0.002227	0.000000	-0.017593
8/6/2018	0.016867	0.010309	0.017778	0.025641	0.025788
8/7/2018	0.040284	0.010204	0.043668	0.000000	0.004888
8/8/2018	-0.009112	0.005051	0.006276	-0.005556	0.001390
8/9/2018	0.006897	-0.027638	-0.002079	0.002793	0.015961
8/10/2018	-0.020548	-0.012920	0.018750	0.000000	-0.008880
8/13/2018	-0.048951	-0.041885	-0.008180	-0.047354	-0.048932
8/14/2018	-0.031863	-0.016393	-0.142268	-0.040936	-0.013043
8/15/2018	0.007595	0.030556	-0.031250	0.042683	-0.001468
8/16/2018	-0.047739	-0.040431	0.022333	0.011696	-0.017647

8/17/2018	0.000000	0.000000	0.000000	0.000000	0.000000
8/20/2018	0.084433	0.030899	0.033981	-0.005780	0.047156
8/21/2018	-0.021898	0.024523	-0.032864	0.023256	-0.008578
8/22/2018	0.000000	0.000000	0.000000	0.000000	0.000000
8/23/2018	0.000000	0.031915	-0.019417	0.014205	0.009373
8/24/2018	-0.029851	-0.015464	0.007426	-0.005602	-0.022857
8/27/2018	0.000000	-0.007853	-0.002457	-0.008451	0.021199
8/28/2018	0.002564	0.007916	0.019704	-0.019886	-0.015032
8/29/2018	0.000000	0.000000	0.002415	0.023188	0.017442
8/30/2018	-0.005115	-0.007853	0.002410	-0.002833	-0.015714
8/31/2018	-0.023136	-0.015831	-0.026442	-0.014205	-0.001451
9/3/2018	-0.063158	-0.005362	0.012346	0.002882	-0.008721
9/4/2018	-0.019663	-0.026954	-0.024390	-0.005747	-0.017595
9/5/2018	-0.085960	-0.058172	-0.052500	-0.028902	-0.031343
9/6/2018	0.018809	0.014706	0.005277	0.029762	0.016949
9/7/2018	-0.009231	0.002899	-0.010499	0.023121	0.003788
9/10/2018	0.040373	0.002890	-0.013263	0.005650	-0.012830
9/11/2018	0.000000	0.000000	0.000000	0.000000	0.000000
9/12/2018	-0.005970	0.014409	0.059140	-0.002809	-0.017584
9/13/2018	0.036036	-0.014205	0.007614	-0.002817	0.002335
9/14/2018	-0.017391	0.002882	0.000000	0.008475	0.020963
9/17/2018	-0.041298	-0.014368	-0.010076	-0.011204	-0.022053
9/18/2018	-0.015385	0.020408	0.050891	-0.005666	-0.005443
9/19/2018	0.040625	-0.005714	0.002421	-0.005698	0.010164
9/20/2018	0.051051	0.037356	0.004831	0.014327	0.015480
9/21/2018	0.045714	0.041551	0.002404	0.011299	0.015244
9/24/2018	-0.019126	-0.031915	-0.011990	-0.016760	-0.025526
9/25/2018	0.013928	-0.002747	0.002427	0.005682	-0.009245
9/26/2018	0.013736	0.000000	-0.004843	-0.028249	-0.031882
9/27/2018	0.002710	0.005510	0.012165	0.026163	0.033735
9/28/2018	0.002703	0.005479	0.038462	0.000000	0.025641
10/1/2018	-0.029650	0.002725	0.018519	0.000000	-0.006818
10/2/2018	-0.041667	0.002717	0.043182	0.014164	-0.010679
10/3/2018	-0.014493	0.010840	0.015251	-0.013966	0.002313
10/4/2018	0.005882	-0.021448	0.010730	0.000000	-0.017692
10/5/2018	0.035088	-0.008219	0.006369	-0.002833	0.021143
10/8/2018	-0.025424	-0.033149	-0.010549	0.002841	-0.016104

10/9/2018	-0.014493	-0.011429	-0.040512	0.005666	-0.002338
10/10/2018	0.038235	0.028902	0.008889	-0.028169	0.009375
10/11/2018	-0.048159	-0.033708	-0.015419	-0.005797	-0.027864
10/12/2018	0.000000	-0.005814	0.020134	0.017493	0.008758
10/15/2018	-0.032738	-0.020468	-0.026316	0.000000	-0.007103
10/16/2018	-0.033846	0.044776	-0.011261	0.002865	0.009539
10/17/2018	0.038217	0.005714	0.025057	0.005714	0.007874
10/18/2018	-0.018405	-0.017045	-0.002222	0.005682	-0.002344
10/19/2018	-0.003125	-0.017341	0.011136	-0.008475	0.014879
10/22/2018	0.006270	0.017647	0.015419	-0.002849	-0.000772
10/23/2018	-0.018692	-0.017341	-0.021692	0.000000	-0.007722
10/24/2018	-0.025397	-0.017647	-0.046563	0.000000	-0.010117
10/25/2018	-0.013029	-0.011976	0.044186	0.002857	0.007862
10/26/2018	-0.013201	0.045455	-0.053452	0.000000	0.042122
10/29/2018	-0.036789	-0.034783	-0.014118	0.002849	-0.026946
10/30/2018	-0.017361	-0.009009	0.000000	-0.017045	0.006154
10/31/2018	0.031802	0.000000	0.014320	0.031792	0.024465
11/1/2018	0.047945	-0.003030	-0.004706	0.000000	-0.000746
11/2/2018	0.058824	-0.036474	-0.007092	0.000000	-0.017924
11/5/2018	-0.024691	-0.006309	0.045238	0.005602	-0.006844
11/6/2018	0.000000	0.034921	0.013667	-0.008357	0.026034
11/7/2018	0.015823	-0.021472	0.004494	-0.019663	0.014179
11/8/2018	0.024922	0.009404	0.000000	0.002865	0.022811
11/9/2018	0.003040	-0.018634	-0.031320	-0.020000	0.004317
11/12/2018	-0.015152	-0.044304	0.020785	-0.017493	-0.052292
11/13/2018	0.000000	0.003311	0.052036	0.014837	0.055178
11/14/2018	-0.046154	0.033003	0.049462	0.017544	-0.011461
11/15/2018	0.016129	-0.006390	-0.036885	0.002874	0.016667
11/16/2018	0.041270	-0.006431	0.008511	0.005731	-0.007840
11/19/2018	-0.042683	-0.038835	-0.016878	0.000000	-0.011494
11/20/2018	0.000000	0.000000	0.000000	0.000000	0.000000
11/21/2018	-0.060510	-0.117845	-0.066524	0.008547	-0.071221
11/22/2018	-0.023729	-0.019084	-0.029885	0.011299	-0.004695
11/23/2018	0.003472	0.007782	0.021327	-0.002793	0.001572
11/26/2018	-0.024221	-0.015444	-0.085847	-0.002801	-0.036892
11/27/2018	-0.024823	-0.043137	-0.017766	0.005618	-0.023635
11/28/2018	0.003636	0.028689	0.031008	0.005587	-0.031720

11/29/2018	0.079710	0.019920	0.037594	0.077778	0.012069
11/30/2018	0.016779	0.003906	-0.028986	0.015464	-0.063032
12/3/2018	0.099010	0.015564	-0.014925	-0.022843	0.040000
12/4/2018	-0.021021	-0.003831	0.010101	0.012987	0.042832
12/5/2018	-0.024540	-0.011538	-0.012500	0.000000	-0.003353
12/6/2018	-0.034591	0.007782	0.032911	-0.005128	-0.024390
12/7/2018	0.003257	0.003861	-0.022059	0.000000	0.012931
12/10/2018	0.003247	0.007692	0.007519	0.002577	0.012766
12/11/2018	-0.006472	-0.019084	0.064677	-0.002571	-0.022689
12/12/2018	-0.009772	-0.023346	0.007009	-0.002577	0.007739
12/13/2018	0.042763	0.019920	0.044084	0.015504	0.000000
12/14/2018	-0.028391	0.003906	-0.008889	0.027990	0.004266
12/17/2018	-0.016234	-0.003891	-0.015695	0.002475	-0.024639
12/18/2018	0.003300	-0.031250	-0.036446	-0.007407	0.014808
12/19/2018	0.042763	0.004032	-0.002364	0.014925	-0.016309
12/20/2018	0.000000	0.008032	0.011848	0.026961	0.006108
12/21/2018	-0.006309	-0.003984	-0.009368	0.004773	-0.030356
12/24/2018	0.000000	0.000000	0.000000	0.000000	0.000000
12/25/2018	0.000000	0.000000	0.000000	0.000000	0.000000
12/26/2018	-0.012698	-0.024000	0.014184	-0.026128	-0.028623
12/27/2018	0.038585	0.016393	0.000000	0.043902	0.016575
12/28/2018	0.009288	-0.020161	0.002331	-0.023364	-0.009058
12/31/2018	0.000000	0.000000	0.000000	0.000000	0.000000
1/1/2019	0.000000	0.000000	0.000000	0.000000	0.000000
1/2/2019	-0.030675	0.008230	-0.013953	-0.004785	-0.000914
1/3/2019	-0.028481	0.004082	-0.018868	0.016827	0.009149
1/4/2019	0.019544	0.130081	0.052885	0.002364	0.051677
1/7/2019	0.041534	0.000000	0.004566	-0.023585	-0.035345
1/8/2019	-0.003067	0.014388	-0.006818	-0.016908	-0.016979
1/9/2019	0.006154	-0.010638	-0.009153	0.007371	0.021818
1/10/2019	0.051988	0.007168	-0.009238	-0.009756	0.004448
1/11/2019	0.000000	0.000000	0.009324	0.000000	-0.015058
1/14/2019	-0.014535	0.003559	0.013857	-0.014778	-0.064748
1/15/2019	0.029499	0.035461	-0.002278	0.010000	-0.015385
1/16/2019	0.060172	0.000000	0.000000	-0.007426	0.017578
1/17/2019	-0.016216	0.000000	0.015982	-0.002494	0.030710
1/18/2019	0.016484	0.017123	0.004494	0.015000	0.002793

1/21/2019	0.010811	-0.010101	0.000000	0.004926	-0.002786
1/22/2019	-0.024064	-0.040816	-0.011186	0.024510	-0.027933
1/23/2019	-0.021918	-0.021277	-0.006787	0.002392	0.019157
1/24/2019	-0.011204	0.000000	0.000000	0.035800	0.000940
1/25/2019	0.031161	0.010870	-0.004556	-0.009217	-0.007512
1/28/2019	-0.024725	-0.003584	-0.004577	0.000000	-0.004730
1/29/2019	-0.002817	-0.035971	0.006897	-0.002326	-0.024715
1/30/2019	0.050847	0.007463	-0.018265	0.004662	0.009747
1/31/2019	0.034946	0.029630	0.002326	0.000000	-0.006757
2/1/2019	-0.018182	-0.010791	0.002320	-0.002320	0.014577
2/4/2019	0.007937	-0.010909	-0.018519	-0.009302	0.005747
2/5/2019	0.000000	0.000000	0.000000	0.000000	0.000000
2/6/2019	0.044619	0.003676	0.011792	-0.004695	0.011429
2/7/2019	-0.030151	-0.014652	0.004662	-0.007075	-0.001883
2/8/2019	-0.031088	-0.029740	-0.002320	0.007126	-0.029245
2/11/2019	-0.034759	-0.034483	-0.009302	-0.009434	-0.013605
2/12/2019	-0.008310	0.011905	-0.016432	-0.004762	-0.021675
2/13/2019	0.022346	-0.011765	-0.016706	-0.002392	0.017120
2/14/2019	-0.002732	-0.015873	-0.016990	0.007194	0.011881
2/15/2019	-0.041096	-0.016129	-0.017284	-0.007143	-0.020548
2/18/2019	0.042857	0.020492	0.000000	0.011990	0.044955
2/19/2019	0.008219	0.040161	0.055276	-0.007109	-0.003824
2/20/2019	0.016304	0.038610	-0.009524	0.002387	-0.001919
2/21/2019	-0.008021	0.052045	0.009615	-0.002381	0.019231
2/22/2019	0.013477	-0.003534	-0.016667	-0.007160	0.054717
2/25/2019	0.021277	-0.003546	0.000000	-0.014423	-0.025045
2/26/2019	0.002604	-0.039146	0.004843	0.014634	0.020183
2/27/2019	-0.020779	0.018519	-0.012048	0.002404	-0.007194
2/28/2019	-0.007958	-0.047273	-0.029268	-0.019185	-0.039855
3/1/2019	0.037433	0.000000	0.015075	0.007335	0.000000
3/4/2019	-0.002577	0.076336	0.004950	0.004854	0.037736
3/5/2019	0.000000	-0.007092	-0.022167	-0.007246	-0.022727
3/6/2019	0.005168	-0.028571	0.017632	-0.002433	-0.010233
3/7/2019	0.000000	0.000000	0.000000	0.000000	0.000000
3/8/2019	-0.061697	0.022059	-0.009901	0.000000	-0.018797
3/11/2019	-0.013699	0.043165	0.005000	0.004878	0.030651
3/12/2019	-0.005556	-0.041379	-0.007463	-0.007282	-0.027881

3/13/2019	0.008380	0.035971	0.007519	0.012225	0.004780
3/14/2019	-0.005540	0.013889	0.000000	0.002415	-0.005709
3/15/2019	0.016713	-0.017123	0.007463	0.004819	0.013397
3/18/2019	-0.032877	-0.003484	0.000000	-0.004796	0.013220
3/19/2019	0.005666	0.003497	-0.007407	-0.007229	0.025163
3/20/2019	0.005634	-0.003484	0.000000	0.007282	0.010909
3/21/2019	0.008403	-0.006993	0.004975	0.000000	-0.003597
3/22/2019	-0.008333	-0.003521	0.009901	-0.004819	0.009025
3/25/2019	-0.044818	-0.049470	0.014706	-0.089588	-0.030411
3/26/2019	0.002933	0.011152	0.024155	0.018617	0.004613
3/27/2019	-0.011696	-0.007353	-0.028302	-0.044386	0.000918
3/28/2019	-0.011834	-0.007407	0.009709	0.013661	-0.009174
3/29/2019	0.014970	0.000000	0.012019	0.005391	0.000000
4/1/2019	0.047198	0.007463	-0.002375	-0.008043	0.012037
4/2/2019	-0.016901	-0.018519	-0.007143	-0.027027	-0.022873
4/3/2019	0.000000	0.000000	0.000000	0.000000	0.000000
4/4/2019	-0.008596	-0.037736	-0.031175	0.005556	-0.007491
4/5/2019	0.000000	-0.011765	-0.004950	0.002762	-0.004717
4/8/2019	-0.026012	0.000000	0.004975	-0.005510	-0.018009
4/9/2019	-0.011869	0.027778	0.007426	0.024931	0.019305
4/10/2019	-0.024024	0.003861	-0.014742	0.005405	-0.015152
4/11/2019	0.036923	-0.003846	0.000000	-0.026882	-0.021154
4/12/2019	-0.002967	0.003861	0.004988	0.000000	0.000000
4/15/2019	0.002976	-0.011538	-0.014888	0.000000	0.019646
4/16/2019	-0.026706	0.015564	0.002519	0.002762	0.018304
4/17/2019	0.000000	0.000000	0.000000	0.000000	0.000000
4/18/2019	-0.030488	-0.007663	-0.007538	0.002755	-0.013245
4/19/2019	0.000000	0.000000	0.000000	0.000000	0.000000
4/22/2019	-0.009434	-0.019305	0.025316	-0.008242	0.000000
4/23/2019	0.015873	0.027559	0.000000	0.019391	0.043145
4/24/2019	-0.028125	0.000000	0.019753	0.000000	0.012868
4/25/2019	-0.035370	-0.011494	-0.024213	-0.013587	0.004537
4/26/2019	0.016667	0.000000	-0.002481	0.011019	-0.002710
4/29/2019	0.006557	0.019380	-0.017413	0.013624	-0.023551
4/30/2019	-0.006515	-0.007605	0.002532	0.045699	0.008349
5/1/2019	0.000000	0.000000	0.000000	0.000000	0.000000
5/2/2019	-0.026230	0.030651	-0.005051	-0.002571	-0.012879

5/3/2019	-0.010101	-0.007435	-0.038071	-0.007732	-0.007456
5/6/2019	-0.013605	-0.014981	0.000000	-0.002597	0.011268
5/7/2019	0.017241	-0.003802	-0.102902	0.010417	0.008357
5/8/2019	-0.013559	-0.011450	-0.061765	0.000000	0.000000
5/9/2019	-0.017182	-0.011583	-0.025078	-0.002577	-0.038674
5/10/2019	-0.003497	-0.011719	-0.009646	0.015504	0.005747
5/13/2019	-0.035088	-0.011858	-0.045455	-0.020356	-0.027619
5/14/2019	-0.021818	-0.012000	0.037415	0.002597	0.000000
5/15/2019	-0.026022	0.000000	-0.049180	-0.012953	-0.006856
5/16/2019	-0.026718	-0.060729	-0.031034	-0.002625	-0.019724
5/17/2019	-0.031373	0.012931	-0.021352	-0.021053	-0.001006
5/20/2019	0.000000	0.000000	0.021818	0.008065	-0.013092
5/21/2019	0.028340	0.051064	0.000000	0.026667	0.009184
5/22/2019	0.023622	0.000000	0.014235	-0.012987	-0.013145
5/23/2019	0.007692	0.036437	0.010526	0.023684	0.047131
5/24/2019	0.026718	-0.015625	0.000000	-0.002571	-0.017613
5/27/2019	0.022305	0.003968	0.000000	0.007732	-0.009960
5/28/2019	-0.018182	0.003953	0.041667	-0.005115	-0.022133
5/29/2019	-0.007407	0.000000	0.000000	0.000000	0.023663
5/30/2019	0.000000	0.000000	0.000000	0.000000	0.000000
5/31/2019	0.007463	0.019685	0.020000	0.007712	0.019095
6/3/2019	0.000000	0.000000	0.000000	0.000000	0.000000
6/4/2019	0.000000	0.000000	0.000000	0.000000	0.000000
6/5/2019	0.000000	0.000000	0.000000	0.000000	0.000000
6/6/2019	0.000000	0.000000	0.000000	0.000000	0.000000
6/7/2019	0.000000	0.000000	0.000000	0.000000	0.000000
6/10/2019	0.037037	-0.007722	-0.039216	0.000000	0.047337
6/11/2019	0.046429	-0.003891	-0.003401	0.035714	0.005650
6/12/2019	0.003413	0.003906	-0.017065	0.000000	0.002809
6/13/2019	-0.020408	-0.007782	-0.013889	-0.014778	-0.000934
6/14/2019	-0.003472	-0.031373	-0.003521	-0.002500	0.005607
6/17/2019	-0.034843	-0.004049	-0.003534	-0.002506	0.004647
6/18/2019	-0.007220	0.012195	0.021277	0.017588	0.006475
6/19/2019	0.065455	0.024096	0.024306	0.000000	0.011029
6/20/2019	0.003413	-0.007843	-0.010169	0.002469	0.000000
6/21/2019	-0.020408	-0.031621	-0.006849	-0.012315	-0.001818
6/24/2019	0.013889	0.016327	-0.006897	-0.007481	0.000000

6/25/2019	0.054795	0.068273	0.062500	0.005025	0.012750
6/26/2019	-0.009740	0.022556	-0.022876	0.005000	0.000000
6/27/2019	0.032787	0.018382	-0.010033	0.009950	0.009892
6/28/2019	-0.009524	-0.018051	0.000000	0.000000	0.004452
7/1/2019	0.012821	0.058824	0.033784	-0.002463	0.022163
7/2/2019	-0.025316	-0.013889	-0.013072	0.000000	-0.012142
7/3/2019	-0.048701	-0.042254	-0.006623	0.000000	-0.007902
7/4/2019	0.003413	0.044118	0.016667	-0.002469	-0.019469
7/5/2019	-0.020408	-0.003521	0.000000	0.000000	0.011733
7/8/2019	0.010417	-0.024735	-0.022951	-0.007426	-0.025870
7/9/2019	0.020619	-0.032609	-0.016779	0.007481	0.014652
7/10/2019	-0.016835	0.007491	0.003413	0.002475	0.011733
7/11/2019	0.044521	-0.007435	-0.010204	0.012346	-0.000892
7/12/2019	-0.016393	-0.041199	-0.024055	0.002439	-0.005357
7/15/2019	0.000000	-0.003906	0.000000	0.009732	0.006284
7/16/2019	0.020000	0.007843	0.000000	0.004819	-0.008029
7/17/2019	0.022876	-0.003891	-0.007042	0.019185	0.007194
7/18/2019	0.015974	0.015625	0.017730	0.009412	-0.025893
7/19/2019	-0.012579	-0.003846	0.003484	0.011655	0.000000
7/22/2019	-0.038217	-0.007722	-0.013889	-0.018433	-0.024748
7/23/2019	0.009934	-0.007782	-0.003521	0.007042	0.015038
7/24/2019	0.000000	-0.015686	-0.017668	-0.013986	-0.000926
7/25/2019	-0.016393	-0.003984	0.003597	0.011820	-0.000927
7/26/2019	-0.026667	-0.016000	-0.014337	-0.011682	-0.015770
7/29/2019	-0.003425	0.020325	-0.018182	-0.002364	-0.035815
7/30/2019	0.034364	0.031873	0.011111	0.007109	-0.002933
7/31/2019	0.006645	-0.019305	0.003663	0.007059	-0.022549
8/1/2019	-0.029703	-0.035433	-0.003650	0.000000	-0.019057
8/2/2019	-0.017007	-0.040816	-0.014652	0.014019	0.005112
8/5/2019	-0.027682	-0.046809	-0.026022	0.002304	-0.028484
8/6/2019	0.049822	-0.031250	-0.026718	-0.009195	-0.047120
8/7/2019	0.013559	0.018433	0.003922	0.041763	0.002198
8/8/2019	0.040134	-0.004525	0.003906	-0.004454	0.017544
8/9/2019	0.045016	-0.004545	-0.011673	0.011186	-0.001078
8/12/2019	-0.003077	-0.022831	-0.023622	-0.002212	-0.063646
8/13/2019	0.030864	-0.032710	-0.024194	-0.002217	-0.021889
8/14/2019	0.020958	0.014493	0.004132	0.008889	0.016490

8/15/2019	0.008798	-0.023810	-0.020576	0.013216	-0.038239
8/16/2019	0.031977	0.004878	0.025210	0.010870	-0.012048
8/19/2019	-0.019718	0.014563	0.004098	-0.008602	0.009756
8/20/2019	-0.020115	0.004785	0.004082	0.032538	-0.007246
8/21/2019	0.008798	-0.019048	-0.016260	-0.008403	-0.025547
8/22/2019	-0.029070	-0.009709	0.000000	0.002119	-0.002497
8/23/2019	-0.011976	0.063725	0.028926	-0.004228	0.026283
8/26/2019	-0.051515	0.032258	-0.032129	-0.002123	-0.018293
8/27/2019	0.022364	0.008929	0.004149	0.000000	0.028571
8/28/2019	0.040625	-0.022124	-0.004132	0.006383	0.009662
8/29/2019	0.027027	-0.004525	0.000000	0.014799	-0.010766
8/30/2019	0.032164	0.022727	0.024896	0.004167	0.012092
9/2/2019	0.124646	0.026667	-0.020243	-0.006224	-0.015532
9/3/2019	-0.035264	0.030303	0.008264	0.002088	-0.009709
9/4/2019	0.010444	0.037815	0.000000	0.000000	0.002451
9/5/2019	-0.036176	0.020243	0.012295	0.000000	0.028117
9/6/2019	-0.002681	0.059524	0.052632	-0.008333	0.026159
9/9/2019	0.024194	0.059925	0.038462	-0.004202	0.079954
9/10/2019	-0.013123	-0.003534	-0.018519	0.014768	-0.015021
9/11/2019	0.029255	0.042553	0.015094	-0.006237	0.023965
9/12/2019	-0.005168	-0.023810	-0.026022	-0.002092	-0.019149
9/13/2019	-0.044156	-0.041812	-0.022901	-0.027254	-0.011931
9/16/2019	-0.029891	0.040000	0.007813	0.019397	0.013172
9/17/2019	0.005602	0.003497	-0.003876	0.010571	-0.009751
9/18/2019	0.041783	-0.020906	-0.007782	-0.006276	-0.014223
9/19/2019	-0.013369	-0.024911	-0.035294	0.002105	-0.034406
9/20/2019	0.046070	0.021898	0.004065	0.004202	0.011494
9/23/2019	-0.010363	-0.021429	-0.028340	-0.006276	0.004545
9/24/2019	-0.047120	-0.054745	-0.033333	-0.006316	-0.040724
9/25/2019	-0.016484	0.011583	-0.008621	0.000000	-0.003538
9/26/2019	0.027933	-0.019084	0.000000	0.016949	-0.013018
9/27/2019	-0.035326	0.023346	0.000000	-0.004167	-0.017986
9/30/2019	-0.011268	-0.019011	-0.017391	0.006276	0.004884
10/1/2019	-0.037037	0.023256	0.008850	-0.008316	-0.001215
10/2/2019	-0.014793	-0.037879	-0.017544	0.023061	-0.017032
10/3/2019	0.078078	0.000000	0.000000	0.000000	0.000000
10/4/2019	0.011142	-0.003937	-0.017857	0.002049	0.000000

10/7/2019	-0.002755	-0.011858	-0.022727	0.004090	0.009901
10/8/2019	-0.013812	0.024000	0.037209	0.010183	-0.008578
10/9/2019	0.005602	-0.007813	0.004484	-0.032258	-0.008653
10/10/2019	0.055710	-0.007874	0.008929	-0.045833	0.004988
10/11/2019	0.010554	0.027778	0.004425	0.015284	0.008685
10/14/2019	0.000000	0.000000	-0.008811	-0.002151	0.014760
10/15/2019	-0.039164	0.027027	0.004444	-0.019397	0.013333
10/16/2019	-0.024457	-0.011278	0.000000	-0.004396	-0.026316
10/17/2019	-0.022284	0.003802	-0.017699	0.019868	0.001229
10/18/2019	-0.008547	-0.007576	0.058559	-0.023810	0.023313
10/21/2019	-0.011494	0.041985	0.000000	0.011086	-0.003597
10/22/2019	-0.011628	0.000000	0.004255	0.002193	0.034898
10/23/2019	0.020588	-0.007326	0.038136	0.006565	0.005814
10/24/2019	0.066282	0.011070	-0.016327	0.008696	0.013873
10/25/2019	-0.029730	-0.014599	-0.024896	-0.015086	-0.033067
10/28/2019	-0.011142	0.014815	0.008511	0.024070	0.011792
10/29/2019	0.042254	-0.025547	-0.008439	-0.008547	-0.005828
10/30/2019	0.016216	-0.022472	-0.004255	0.006466	0.017585
10/31/2019	-0.013298	0.003831	-0.038462	-0.004283	-0.001152
11/1/2019	-0.026954	-0.030534	-0.026667	0.000000	-0.008074
11/4/2019	-0.002770	0.007874	0.050228	-0.023656	0.003488
11/5/2019	0.011111	0.070313	0.056522	-0.013216	0.077636
11/6/2019	-0.008242	0.014599	0.012346	0.002232	-0.017204
11/7/2019	0.011080	-0.003597	-0.028455	-0.037862	-0.035011
11/8/2019	-0.024658	0.021661	0.079498	0.043981	0.055556
11/11/2019	-0.033708	0.000000	0.007752	0.011086	0.002148
11/12/2019	-0.011628	0.007067	0.007692	0.000000	0.020364
11/13/2019	0.011765	-0.063158	-0.026718	0.006579	-0.024160
11/14/2019	-0.023256	-0.026217	-0.035294	-0.006536	-0.034446
11/15/2019	0.000000	0.030769	0.020325	0.000000	-0.002230
11/18/2019	-0.020833	-0.007463	0.000000	0.000000	-0.021229
11/19/2019	0.003040	-0.007519	-0.011952	0.002193	0.025114
11/20/2019	-0.021212	0.011364	-0.012097	0.000000	0.010022
11/21/2019	0.030960	-0.018727	-0.028571	-0.002188	-0.025358
11/22/2019	-0.009009	0.007634	0.021008	0.002193	0.029412
11/25/2019	-0.003030	-0.007576	0.028807	-0.002188	-0.017582
11/26/2019	-0.015198	0.003817	0.052000	-0.002193	-0.043624

11/27/2019	-0.024691	-0.015209	-0.019011	0.000000	0.010526
11/28/2019	-0.047468	-0.038610	-0.042636	-0.004396	-0.032407
11/29/2019	-0.003322	-0.012048	-0.020243	0.000000	0.001196
12/2/2019	0.036667	0.069106	0.045455	0.006623	0.038232
12/3/2019	-0.016077	0.000000	-0.011858	0.000000	-0.026467
12/4/2019	0.000000	0.034221	-0.016000	-0.026316	-0.021277
12/5/2019	0.016340	0.073529	0.040650	0.013514	0.004831
12/6/2019	0.019293	-0.023973	-0.003906	0.015556	0.025240
12/9/2019	-0.003155	-0.003509	0.015686	-0.004376	0.001172
12/10/2019	0.012658	0.045775	-0.015444	0.000000	-0.002342
12/11/2019	0.018750	0.003367	-0.011765	0.006593	-0.023474
12/12/2019	0.030675	-0.010067	-0.019841	-0.006550	-0.016827
12/13/2019	0.038690	0.077966	0.044534	0.006593	0.035452
12/16/2019	0.034384	0.031447	0.042636	-0.008734	0.038961
12/17/2019	0.000000	0.009146	-0.014870	0.013216	0.017045
12/18/2019	-0.044321	-0.027190	0.007547	0.000000	-0.025698
12/19/2019	0.005797	-0.009317	-0.007491	-0.006522	-0.003440
12/20/2019	0.028818	-0.034483	-0.018868	0.008753	-0.021864
12/23/2019	0.011204	0.025974	0.003846	-0.010846	-0.002353
12/26/2019	-0.008310	0.003165	0.011494	-0.010965	0.020047
12/27/2019	-0.013966	-0.003155	0.003788	-0.008869	0.002312
12/30/2019	0.031161	-0.015823	0.003774	-0.002237	-0.006920

Lampiran 5. Sintax *Quadratic Programming* Pada MATLAB

1. Sintax *Quadratic Programming* saham Konvensional

a) BBCA dan BBRI

```
u1=0.00110525;
u2=0.00093781;
ua=0.00102153;
Q=0.5*[0.000137908 0.000084918;
       0.000084918 0.000274496];
f=[0;0];
A=[u1 u2; 0 0];
b=[ua; 0];
Aeq=[1 1; 0 0];
beq=[1; 0];
lb=zeros(2,1);
[w]=quadprog(Q, f, A, b, Aeq, beq, lb, [])
w = 0.5000
      0.5000
```

b) BBCA, BBI dan BMRI

```
u1=0.00110525;
u2=0.00093781;
u3=0.00069896;

ua=0.00091401;
Q=0.5*[0.000137908 0.000084918 0.000087754;
       0.000084918 0.000274496 0.000173506;
       0.000087754 0.000173506 0.000302403];

f=[0;0;0];
A=[u1 u2 u3; 0 0 0 ; 0 0 0];
b=[ua; 0; 0];
Aeq=[1 1 1 ; 0 0 0; 0 0 0];
beq=[1; 0; 0];
lb=zeros(3,1);
[w]=quadprog(Q, f, A, b, Aeq, beq, lb, [])
w =
      0.4669
      0.1061
      0.4270
```

c) BBCA, BBRI, BMRI dan BBNI

```
u1=0.00110525;
u2=0.00093781;
u3=0.00069896;
u4=0.00063184;
ua=0.000843465;
Q=0.5*[0.000137908 0.000084918 0.000087754 0.000071871;
       0.000084918 0.000274496 0.000173506 0.000173364
```

```

0.000087754 0.000173506 0.000302403 0.000185364
0.000071871 0.000173364 0.000185364 0.000322050];

f=[0;0;0;0];
A=[u1 u2 u3 u4; 0 0 0 0; 0 0 0 0; 0 0 0 0];
b=[ua; 0; 0; 0];
Aeq=[1 1 1 1; 0 0 0 0; 0 0 0 0; 0 0 0 0];
beq=[1; 0; 0; 0];
lb=zeros(4,1);
[w]=quadprog(Q, f, A, b, Aeq, beq, lb, [])
w =
    0.4123
    0.0000
    0.2447
    0.3430

```

2. Syntax *Quadratic Programming* saham Syariah

a. INCO dan ADRO

```

u1=0.00118929;
u2=0.00097868;
ua=0.001083985;
Q=0.5*[0.000829589 0.000223248;
        0.000223248 0.000696693];
f=[0;0];
A=[u1 u2; 0 0];
b=[ua; 0];
Aeq=[1 1; 0 0];
beq=[1; 0];
lb=zeros(2,1);
[w]=quadprog(Q, f, A, b, Aeq, beq, lb, [])
w =
    0.5000
    0.5000

```

b. INCO, ADRO dan PTBA

```

u1=0.00118929;
u2=0.00097868;
u3=0.00091837;

ua=0.00102878;
Q=0.5*[0.000829589 0.000223248 0.000161898;
        0.000223248 0.000696693 0.000305070;
        0.000161898 0.000305070 0.000668630]
f=[0;0;0];
A=[u1 u2 u3; 0 0 0; 0 0 0];
b=[ua; 0; 0];
Aeq=[1 1 1; 0 0 0; 0 0 0];
beq=[1; 0; 0];
lb=zeros(3,1);
[w]=quadprog(Q, f, A, b, Aeq, beq, lb, [])
w =
    0.3231
    0.2996

```

0.3773

c. INCO,ADRO,PTBA dan ICBP

```
u1=0.00118923;
u2=0.00097868;
u3=0.00091837;
u4=0.00042201;

ua=0.0008770725;
Q=0.5*[0.000829589 0.000223248 0.000161898 0.000038628;
        0.000223248 0.000696693 0.000305070 0.000059236
        0.000161898 0.000305070 0.000668630 0.000044715
        0.000038628 0.000059236 0.000044715 0.000231046];

f=[0;0;0;0];
A=[u1 u2 u3 u4; 0 0 0 0; 0 0 0 0; 0 0 0 0];
b=[ua; 0; 0; 0];
Aeq=[1 1 1 1; 0 0 0 0; 0 0 0 0; 0 0 0 0];
beq=[1; 0; 0; 0];
lb=zeros(4,1);
[w]=quadprog(Q, f, A, b, Aeq, beq, lb, [])
w =    0.1213
      0.0850
      0.1383
      0.6554
```