

**PEMBENTUKAN PORTOFOLIO MARKOWITZ  
DENGAN METODE TWO FUND THEOREM  
Studi Kasus : Harga Penutupan Saham *Jakarta Islamic Indeks (JII)*  
(Periode 1 Januari 2013 – 31 Mei 2015)**

Skripsi

untuk memenuhi sebagian persyaratan  
mencapai derajat Sarjana S-1  
Program Studi Matematika



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*Assalamu'alaikum wr. wb.*

Setelah membaca, meneliti, memberikan petunjuk dan mengoreksi serta mengadakan perbaikan seperlunya, maka kami selaku pembimbing berpendapat bahwa skripsi Saudara:

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sudah dapat diajukan kembali kepada Program Studi Matematika Fakultas Sains dan Teknologi UIN Sunan Kalijaga Yogyakarta sebagai salah satu syarat untuk memperoleh gelar Sarjana Strata Satu dalam Matematika.

Dengan ini kami mengharap agar skripsi/tugas akhir Saudara tersebut di atas dapat segera dimunaqosyahkan. Atas perhatiannya kami ucapkan terima kasih.

*Wassalamu'alaikum wr. wb.*

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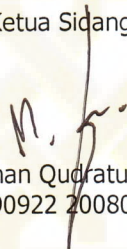
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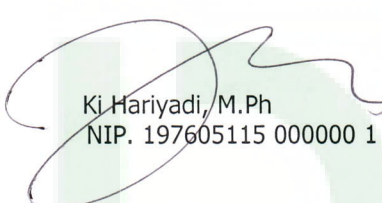
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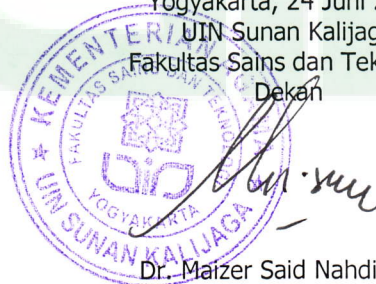
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Yang menyatakan,



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## MOTTO

**“Jika kita ingin hasil yang lebih, maka berikanlah usaha yang lebih pula”**

**“Kesempatan kita ya sekarang ini, karna besuk belumlah menjadi kepastian untuk kita”**



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Penulis

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## DAFTAR ISI

<b>HALAMAN JUDUL .....</b>	<b>i</b>
<b>HALAMAN PERSETUJUAN .....</b>	<b>ii</b>
<b>HALAMAN PENGESAHAN.....</b>	<b>iii</b>
<b>HALAMAN PERNYATAAN.....</b>	<b>iv</b>
<b>HALAMAN PERSEMBAHAN .....</b>	<b>v</b>
<b>MOTTO .....</b>	<b>vi</b>
<b>KATA PENGANTAR.....</b>	<b>vii</b>
<b>DAFTAR ISI.....</b>	<b>ix</b>
<b>DAFTAR TABEL .....</b>	<b>xiii</b>
<b>DAFTAR LAMPIRAN .....</b>	<b>xiv</b>
<b>ABSTRAK .....</b>	<b>xv</b>
<b>BAB I PENDAHULUAN.....</b>	<b>1</b>
1.1. Latar Belakang .....	1
1.2. Batasan Masalah .....	4
1.3. Rumusan Masalah .....	4
1.4. Tujuan Penelitian .....	5
1.5. Manfaat Penelitian.....	5
1.6. Tinjauan Pustaka .....	6
1.7. Sistematika Penulisan .....	8

<b>BAB II DASAR TEORI .....</b>	<b>10</b>
2.1. Saham <i>Jakarta Islamic Index</i> .....	10
2.2. Matriks .....	11
2.2.1. Penjumlahan Matriks .....	12
2.2.2. Perkalian Matriks dengan Skalar .....	12
2.2.3. Perkalian Dua matriks.....	13
2.2.4. Matriks Transpose .....	14
2.2.5. <i>Invers</i> Matriks .....	14
2.3. Variabel Random.....	15
2.4. Fungsi Densitas Probabilitas .....	16
2.5. Ekspektasi / Nilai Harap.....	16
2.6. Fungsi Distribusi Kumulatif.....	17
2.7. <i>Mean</i> dan <i>Variansi</i> .....	18
2.8. Kovariansi .....	19
2.9. Portofolio.....	20
2.9.1. Diversifikasi Portofolio .....	21
2.10. Saham.....	23
2.11. <i>Return</i> Saham.....	23
2.12. <i>Return</i> Pasar .....	24
2.13. <i>Return</i> Ekspektasi Pasar.....	25
2.14. <i>Return</i> Aset Bebas Risiko .....	25
2.15. <i>Return</i> Portofolio .....	26

2.16. Risiko Saham dan Risiko Portofolio.....	27
2.17. Indeks Sharpe.....	29
2.18. Matriks Data Multivariat.....	30
2.19. Matriks Varian Kovarian .....	30
2.20. Kombinasi Linear Matriks <i>Mean</i> dan Kovarian .....	32
<b>BAB III METODE PENELITIAN .....</b>	<b>33</b>
3.1. Jenis dan Sumber Data .....	33
3.2. Populasi dan Sampel .....	33
3.3. Metode Penelitian .....	34
3.4. Metode Analisis Data .....	35
<b>BAB IV PORTOFOLIO MODEL MARKOWITZ .....</b>	<b>37</b>
4.1. Portofolio Markowitz .....	38
4.2. Metode <i>Two Fund Theorem</i> .....	42
<b>BAB V STUDI KASUS .....</b>	<b>47</b>
5.1. Data .....	47
5.2. Permasalahan .....	50
5.3. Membentuk Matriks Varian Kovarian .....	51
5.4. Matriks Volatilitas.....	51
5.5. Matriks Korelasi .....	51
5.6. Matriks Kovarian.....	52
5.7. Menentukan Nilai $v_j^1$ .....	54

5.8. Menentukan Nilai $v_j^2$ .....	54
5.9. Menentukan Nilai $w_1$ dan $w_2$ .....	55
5.10. Menghitung Proporsi Dana .....	57
5.11. Menentukan Kinerja Portofolio .....	59
5.12. Pembahasan.....	60
<b>BAB VI PENUTUP</b> .....	<b>62</b>
6.1. Kesimpulan .....	62
6.2. Saran .....	63
<b>DAFTAR PUSTAKA</b> .....	<b>64</b>

## DAFTAR TABEL

Tabel 1.1 Kajian Pustaka.....	8
Tabel 5.1 Daftar <i>Mean Return</i> dan Variansi Saham .....	47
Tabel 5.2 Daftar Saham dengan <i>Mean return</i> Positif .....	49
Tabel 5.3 Matriks Volatilitas Portofolio .....	51
Tabel 5.4 Matriks Korelasi Portofolio .....	52
Tabel 5.5 Matriks Kovarian Portofolio .....	52
Tabel 5.6 Matriks Varian Kovarian Portofolio .....	53
Tabel 5.7 Proporsi Saham Portofolio .....	58
Tabel 5.8 Portofolio Berdasarkan Indeks Sharpe.....	59
Tabel 5.9 Daftar Proporsi Saham Portofolio dengan $\text{Alpha}=0,93$ .....	59

## DAFTAR LAMPIRAN

Lampiran 1 Data Saham Harian Periode 1 Januari 2013 – 31 Mei 2015.....	65
Lampiran 2 Data <i>Return</i> Saham Periode 1 Januari 2013 – 31 Mei 2015.....	82



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Studi Kasus : Harga Penutupan Saham *Jakarta Islamic Indeks (JII)*  
(Periode 1 Januari 2013 - 31 Mei 2015)**

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**ABSTRAK**

Investasi merupakan penanaman modal yang dilakukan dengan tujuan memperoleh keuntungan dimasa mendatang. Investasi pasar modal bersifat *high return high risk*, salah satu cara untuk mengurangi resiko adalah dengan membentuk portofolio *Markowitz*.

Ada beberapa metode yang dapat digunakan untuk membentuk portofolio *Markowitz* yaitu metode *mean-variance*, metode *Value at Risk (VaR)*, *Capital Asset Pricing Model (CAPM)*, dan metode *Two-Fund Theorem*. Penelitian ini membahas pembentukan portofolio *Markowitz* dengan metode *Two Fund Theorem*. Metode ini dapat memberikan hasil pembobotan yang beragam sesuai dengan nilai konstanta  $\alpha$  ( $0 < \alpha < 1$ ) nilai koefisien yang digunakan sehingga ada banyak pilihan bagi investor untuk memilih portofolio seperti apa yang akan dipilih.

Pembentukan portofolio *Markowitz* dengan metode *Two Fund Theorem* terhadap 8 saham yang dipilih dari JII yaitu AALI, AKRA, BSDE, ICBP, INDF, KLBF, LPKR, dan UNVR periode 1 Januari 2013–31 Mei 2015. Dari hasil perhitungan diperoleh satu portofolio terbaik yaitu dengan proporsi saham AALI 20,08%, AKRA 12,72%, BSDE 0,17%, ICBP 17,18%, INDF 18,28%, KLBF 16,79%, LPKR 1,90%, UNVR 12,89% dengan nilai *mean return* 0,0083% ; standar deviasi 0,0169% dan indeks Sharpe 0,79.

**Kata Kunci** : Portofolio, Model *Markowitz*, *Two-Fund Theorem*.

## **BAB I**

### **PENDAHULUAN**

#### **1.1 Latar Belakang Masalah**

Investasi adalah suatu istilah dengan beberapa pengertian yang berhubungan dengan keuangan dan ekonomi. Terkadang, investasi disebut juga sebagai penanaman modal. Investasi menurut Islam merupakan kegiatan muamalah yang sangat dianjurkan, karena dengan berinvestasi, harta atau aset yang dimiliki oleh seseorang menjadi produktif sehingga mampu mendatangkan manfaat bagi dirinya dan orang lain, dengan syarat penerapannya berpedoman pada prinsip-prinsip syariah. Banyak sekali jenis investasi yang dapat dipilih oleh masyarakat (investor), diantaranya investasi emas, investasi tanah, investasi pasar modal dan lain-lain.

Semua jenis investasi itu diharapkan memberikan keuntungan bagi investor, akan tetapi dalam dunia investasi hampir seluruhnya mengandung unsur risiko. Pengetahuan tentang risiko merupakan suatu hal yang sangat penting dimiliki oleh setiap investor maupun calon investor untuk meminimalkan risiko yang mungkin diperolehnya dalam berinvestasi. Para investor belum tahu berapa besar hasil yang akan diperoleh dari investasi tersebut, sehingga dapat dikatakan bahwa investor tersebut menghadapi risiko dalam investasi yang dilakukannya.



Risiko adalah besarnya penyimpangan antara tingkat pengembalian yang diharapkan (*expected return*) dengan tingkat pengembalian aktual (*actual return*). Pengukuran risiko merupakan hal yang sangat penting dalam analisis keuangan mengingat hal ini berkenaan dengan investasi dana yang cukup besar. Investor dapat mengurangi risiko tersebut dengan cara diversifikasi investasi. Investor dapat melakukan diversifikasi dengan beberapa cara antara lain dengan membentuk portofolio berisi banyak aktiva, membentuk portofolio secara random, dan diversifikasi secara metode Markowitz (Jogiyanto, 2003 : 279).

Portofolio merupakan suatu kombinasi atau gabungan dari dua atau lebih saham individu, baik berupa aset riil (*riil asset*) yang berbentuk pembelian aset produktif, pendirian pabrik, pembukaan pertambangan, pembukaan perkebunan dan aset financial (*financial asset*) yang dilakukan di pasar uang baik berupa sertifikat deposito, *commercial paper*, dan surat berharga pasar uang yang dimiliki oleh investor. Portofolio saham pertama kali diperkenalkan oleh Harry M. Markowitz pada tahun 1952. Portofolio tersebut dibentuk dengan rata-rata dan standar deviasi *return* saham berdasarkan adanya hubungan antara saham yang membentuk portofolio.

Portofolio Markowitz membentuk portofolio efisien yang menawarkan resiko dengan tingkat *return* tertentu. Dari beberapa portofolio efisien tersebut

dapat dipilih portofolio optimal dengan standar deviasi terkecil yang mengukur resiko pada portofolio.

Penyelesaian model Markowitz dapat diselesaikan dengan metode *Mean-Variance*, metode *Value at Risk* (VaR), *Capital Asset Pricing Model* (CAPM), dan *Two-Fund Theorem*. Metode VaR portofolio dapat digunakan untuk menghitung nilai *Minimum Loss* (kerugian terkecil) atau *Maximum Loss* (kerugian maksimum). CAPM lebih mengutamakan keterkaitan yang terjadi antara resiko dan *return* untuk portofolio efisien dan hubungan antara return sekuritas individual atau aset. Metode ini mengasumsikan bahwa semua aset adalah beresiko selain aset yang didiversifikasikan. Sedangkan metode pendekatan *Two-Fund Theorem*, membentuk portofolio efisien yang merupakan kombinasi dari dua portofolio. Portofolio ini adalah portofolio efisien yang perhitungannya berdasarkan pada rata-rata dan *varians return* dari aset. Metode pendekatan *Two-Fund Theorem* memiliki kelebihan karena dapat menentukan bobot saham portofolio efisien dengan resiko yang paling kecil. Dengan kata lain semua investor mencari portofolio efisien dan hanya perlu berinvestasi ke dalam kombinasi pendanaan.

Dalam penelitian ini portofolio Markowitz melalui pendekatan *Two Fund Theorem* pada studi kasus saham *Jakarta Islamic Index* (JII) yang diambil dari [finance.yahoo.com](http://finance.yahoo.com). Karena saham-saham JII merupakan 30

saham yang sudah dikategorikan *syariah compliance* atau tidak bertentangan dengan syariah. Saham yang diambil adalah saham JII periode 1 Januari 2013 – 31 Mei 2015.

## 1.2 Batasan Masalah

Batasan masalah sangat diperlukan untuk menjamin keabsahan dalam kesimpulan yang diperoleh. Agar tidak terjadi penyimpangan dari tujuan semula dan pemecahan masalah lebih terkonsentrasi, maka pembahasan akan difokuskan pada pembentukan portofolio markowitz dengan pendekatan *Two-Fund Theorem* pada saham syari'ah, aplikasinya pada studi kasus penutupan harga saham harian *Jakarta Islamic Index* (JII) periode 1 Januari 2013 – 31 Mei 2015.

## 1.3 Rumusan Masalah

Berdasarkan latar belakang dan batasan masalah yang telah dijabarkan, maka dirumuskan permasalahan sebagai berikut :

1. Bagaimana proses pembentukan portofolio model Markowitz dengan metode *Two Fund Theorem* ?
2. Bagaimana proporsi dari masing-masing saham syari'ah pembentuk portofolio optimal dengan metode *Two Fund Theorem*?
3. Bagaimana *return* dan risiko portofolio optimal dengan metode *Two Fund Theorem*?

#### 1.4 Tujuan Penelitian

Tujuan dari penulisan skripsi ini adalah :

1. Mengetahui bagaimana cara pembentukan portofolio model Markowitz dengan metode *Two Fund Theorem*.
2. Mengetahui besarnya proporsi dari masing-masing saham syari'ah pembentuk portofolio optimal dengan metode *Two Fund Theorem*.
3. Mengetahui besarnya *return* dan risiko portofolio optimal dengan metode *Two Fund Theorem*.

#### 1.5 Manfaat Penelitian

Manfaat penulisan skripsi ini adalah sebagai berikut :

1. Bagi Mahasiswa

Penelitian ini diharapkan dapat menambah ilmu pengetahuan secara teoritis bagi penulis tentang pembentukan portofolio model Markowitz dengan metode *Two Fund Theorem*.

2. Bagi Investor

Hasil dari penelitian ini diharapkan dapat dijadikan masukan bagi investor dalam pembentukan portofolio untuk mengambil keputusan investasi dalam saham-saham *Jakarta Islamic Index (JII)* di pasar modal.

### 3. Bagi Peneliti Selanjutnya

Hasil dari penelitian ini diharapkan dapat dijadikan suatu referensi untuk penelitian lebih lanjut, terutama yang berkaitan dengan pembentukan portofolio optimal saham syaria'ah dengan menggunakan metode *Two Fund Theorem*.

## 1.6 Tinjauan Pustaka

Tinjauan pustaka yang digunakan oleh penulis adalah beberapa penelitian yang relevan dengan tema yang diambil penulis antara lain:

1. Laporan kerja praktek yang berjudul "Pembentukan Portofolio Dengan Metode *Two Fund Markowitz*" oleh I Gusti Bagus Yogiswara Datra mahasiswa jurusan Statistika Fakultas MIPA UGM tahun 2012. Laporan kerja praktek ini menjelaskan tentang bagaimana cara membentuk portofolio dengan menggunakan metode *Two Fund Markowitz* dengan studi kasus Sentra Investasi Danareksa Yogyakarta yang terdiri dari lima saham yaitu ASII, BUMI, INDF, PGAS, TLKM.
2. Jurnal yang berjudul "*Portofolio Model Markowitz Dengan Pendekatan Two Fund Theorem*" yang ditulis oleh Febby Riang Lifa, Helmi, Evy Sulistianingsih. Dalam jurnal yang bersumber dari <http://jurnal.untan.ac.id/index.php/jbmstr/article/view/1537> menjelaskan tentang bagaimana cara pembentukan portofolio model Markowitz

dengan pendekatan *Two-Fund Theorem* dari saham Media Nusa Citra Nusantara, Unilever Indonesia, United Tractor, dan Semen Gresik.

3. Jurnal yang berjudul Penentuan Portofolio Saham Yang Optimal Dengan Model Markowitz Sebagai Dasar Penetapan Investasi Saham yang ditulis oleh Euginia Natalia Darminto. Dalam jurnal yang bersumber dari <http://primewirez.com/k-16104627.html> menjelaskan tentang bagaimana cara penentuan portofolio saham yang optimal dengan model Markowitz dari saham AISA, DLTA, ICBP, INDF, MLBI, MYOR, ROTI, SKLT, dan ULTI.

Pada penelitian ini mempunyai persamaan dalam hal metode yang digunakan, yaitu *Two Fund Theorem*, akan tetapi ada perbedaan dalam penentuan obyek yang diteliti dengan peneliti sebelumnya. Jika pada peneliti sebelumnya objek yang diteliti adalah saham-saham ASII, BUMI, INDF, PGAS, TLKM, dan Media Nusa Citra Nusantara, Unilever Indonesia, United Tractor, Semen Gresik sedangkan pada peneliti ini, peneliti menggunakan objek yaitu saham-saham yang tergabung dalam Jakarta Islamic Indeks (JII)

Tabel 1.1 Kajian Pustaka

<b>Peneliti</b>	<b>Judul</b>	<b>Metode</b>	<b>Obyek</b>
Febby Riang Lifa, Helmi, Evy Sulistaningsih	Pertofolio Model Markowitz Dengan Pendekatan <i>Two- Fund Theorem</i>	<i>Two-Fund Markowitz</i>	MNCN, UNTR, UNVR, SMGR
I Gusti Bagus Yogiswara Datra	Pembentukan Portofolio Dengan Metode <i>Two-Fund Markowitz</i>	<i>Two-Fund Markowitz</i>	ASII, BUMI, INDF, PGAS, TLKM
Euginia Natalia Darminto	Penentuan Portofolio Saham Yang Optimal Dengan Model Markowitz Sebagai Dasar Penetapan Investasi Saham	Model <i>Markowitz</i>	AISA, DLTA, ICBP, INDF, MLBI, MYIR, ROTI, SKLT, ULTJ

## 1.7 Sistematika Penulisan

### 1. BAB I : PENDAHULUAN

Berisi latar belakang masalah, batasan masalah, rumusan masalah, tujuan penelitian, manfaat penelitian, tinjauan pustaka, dan sistematika penulisan.

## 2. BAB II : LANDASAN TEORI

Berisi tentang teori penunjang yang digunakan dalam pembahasan yaitu analisis *Two-fund Theorem*.

## 3. BAB III : METODE PENELITIAN

Berisi berbagai penjelasan mengenai proses pelaksanaan penelitian ini, mulai jenis penelitian, objek, variabel, jenis dan sumber data, teknik pengumpulan data metodologi penelitian, metode analisis data, dan sampai pada alat pengolahan data.

## 4. BAB IV : PEMBENTUKAN PORTOFOLIO MARKOWITZ DENGAN PENDEKATAN TWO-FUND THEOREM

Berisi tentang pembahasan cara pembentukan portofolio optimal model Markowitz dengan pendekatan *Two-Fund Theorem*.

## 5. BAB V : STUDI KASUS

Berisi tentang penerapan pembentukan portofolio optimal model Markowitz dengan pendekatan *Two-fund theorem* pada data saham JII dan memberikan interpretasi terhadap hasil yang diperoleh.

## 6. BAB VI : KESIMPULAN DAN SARAN

Berisi tentang kesimpulan yang dapat diambil dari pembahasan permasalahan yang ada dan pemecahan masalah dan saran-saran yang berkaitan dengan penelitian sejenis dimasa yang akan datang.



## BAB VI

### PENUTUP

#### 1.1 Kesimpulan

Berdasarkan hasil studi literatur yang dilakukan penulis tentang Pembentukan Portofolio Markowitz dengan metode *Two Fund Theorem* pada data yang dikemukakan dalam penelitian ini, maka dapat diambil kesimpulan sebagai berikut:

1. Terdapat empat langkah dalam membentuk portofolio model Markowitz dengan metode *Two Fund Theorem* yaitu menghitung *return* masing-masing sekuritas, membentuk matrik varian kovarian, menghitung proporsi dana, menghitung *return* portofolio, dan menghitung risiko portofolio. Kemudian untuk mengetahui kinerja portofolio diketahui dengan menghitung nilai Indeks Sharpe setiap portofolio.
2. Pembentukan portofolio Markowitz menggunakan metode *Two Fund Theorem* yang dibahas dalam skripsi adalah pada harga penutupan harian saham JII antara lain AALI, AKRA, BSDE, ICBP, INDF, KLBF, LPKR, dan UNVR periode 1 Januari 2013 – 31 Mei 2015. Dari hasil perhitungan diperoleh satu portofolio terbaik yaitu dengan proporsi saham AALI 20,08%, AKRA 12,72%, BSDE 0,17%, ICBP 17,18%, INDF 18,28%, KLBF 16,79%, LPKR 1,90%, UNVR 12,89%

3. Portofolio Markowitz terbaik yang dihasilkan yaitu dengan nilai *mean return* 0,0083% ; standar deviasi 0,0169% dan indeks Sharpe 0,79.

## 1.2 Saran

Dalam skripsi ini, penulis menjelaskan pembentukan portofolio Markowitz dengan metode *Two Fund Theorem*. Bagi pembaca yang berminat, penulis menyarankan untuk :

1. Bagi para investor yang akan melakukan investasi untuk dapat memahami cara berinvestasi yang baik dengan cara membentuk portofolio sehingga diharapkan dapat memilih portofolio yang terbaik bagi investasinya agar dapat memperkecil kerugian dan memperbesar keuntungan.
2. Memperluas pembahasan tentang tata cara pembentukan portofolio Markowitz pada sekuritas lain seperti obligasi, sertifikat dan deposito ataupun pada sekuritas luar negeri.

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*Lampiran 1*

**Data Saham Harian Periode 1 Januari 2013 – 31 Mei 2015**

Date	AAI	AKRA	BSDE	ICBP	INDF	KLBF	LPKR	UNVR
01/01/2013	19100	4050	1100	8100	5850	1030	1000	21200
02/01/2013	20050	4125	1110	8000	5800	1040	1000	21850
03/01/2013	20700	4200	1140	8000	5850	1070	1040	22100
04/01/2013	20600	4200	1160	8000	5950	1040	1040	21750
07/01/2013	20650	4050	1140	7950	5850	1030	1020	21700
08/01/2013	20450	4000	1120	8100	6000	1020	1010	21650
09/01/2013	20200	3850	1120	7900	6000	1030	990	21450
10/01/2013	19550	3825	1130	7750	5900	1000	1000	21250
11/01/2013	19550	3925	1140	7750	5900	1000	1000	21300
14/01/2013	19800	4025	1240	7950	6050	1020	1030	21150
15/01/2013	19950	3950	1270	8000	6050	1010	1030	21250
16/01/2013	19350	3975	1270	7900	6150	1010	1020	21600
17/01/2013	19100	3925	1260	7950	6100	1000	1000	21500
18/01/2013	19250	4025	1290	7950	5950	1040	1030	22450
21/01/2013	19150	3975	1320	7900	6000	1040	1000	23000
22/01/2013	19150	3950	1320	7900	6000	1040	1000	23000
23/01/2013	19250	3925	1350	8050	6050	1060	1010	22450
24/01/2013	19250	3925	1350	8050	6050	1060	1010	22450
25/01/2013	19350	3775	1320	8100	6000	1060	990	22250
28/01/2013	19250	3850	1330	8050	6050	1060	990	22050
29/01/2013	19000	3875	1370	8050	6100	1090	1020	21650
30/01/2013	18950	3875	1440	8000	6100	1120	1040	21600
31/01/2013	18850	3875	1400	8000	6050	1090	1030	22050
01/02/2013	19150	3875	1390	8100	5950	1090	1030	21950
04/02/2013	19150	3925	1370	8100	6050	1100	1030	21950
05/02/2013	19100	3900	1330	8100	6050	1130	1040	22200
06/02/2013	19000	3950	1380	8050	6350	1120	1010	22200
07/02/2013	18900	3950	1360	8050	6550	1120	1020	22300
08/02/2013	18900	4000	1340	8000	6600	1090	1030	22000
11/02/2013	18850	4075	1350	7950	6700	1090	1020	21950
12/02/2013	18900	4025	1420	8000	6700	1120	1030	22300
13/02/2013	18900	4150	1430	8000	6550	1140	1070	22800

14/02/2013	19000	4175	1420	8000	6600	1130	1070	22750
15/02/2013	19100	4275	1400	8000	6700	1130	1080	23000
18/02/2013	18900	4225	1430	8000	6600	1120	1070	22900
19/02/2013	18500	4150	1420	8000	6600	1110	1080	22750
20/02/2013	18900	4125	1470	8000	6650	1120	1100	23200
21/02/2013	18850	4100	1450	8000	6950	1150	1100	23150
22/02/2013	18350	4100	1480	8100	6800	1150	1100	22950
25/02/2013	18450	4350	1450	8300	6850	1210	1100	22850
26/02/2013	18300	4325	1470	8400	6900	1230	1080	22300
27/02/2013	18300	4400	1540	8550	7100	1270	1100	22650
28/02/2013	18450	4475	1600	8500	7300	1290	1130	22850
01/03/2013	18500	4525	1580	8550	7400	1260	1140	22750
04/03/2013	18500	4525	1580	8250	7300	1300	1140	23000
05/03/2013	18600	4600	1610	8650	7350	1280	1120	22800
06/03/2013	18900	4700	1620	8950	7850	1280	1180	22950
07/03/2013	19000	4725	1650	9100	7850	1320	1190	22850
08/03/2013	18850	4750	1650	9250	7700	1330	1190	23000
11/03/2013	18700	4900	1630	8950	7800	1290	1190	22900
12/03/2013	18850	4750	1650	9250	7700	1330	1190	23000
13/03/2013	18600	4925	1600	8950	7750	1270	1140	22800
14/03/2013	18050	4875	1590	9000	7400	1230	1140	22000
15/03/2013	17950	4975	1650	9250	7250	1230	1150	22300
18/03/2013	18250	5150	1650	9050	7500	1270	1150	22500
19/03/2013	18500	5350	1650	9050	7400	1260	1180	22750
20/03/2013	18350	5500	1720	8750	7450	1260	1200	22550
21/03/2013	18250	5450	1740	8850	7350	1240	1220	22800
22/03/2013	18050	5300	1690	8400	7200	1190	1220	22100
25/03/2013	18500	5200	1740	9050	7350	1240	1290	22750
26/03/2013	18500	5150	1730	9150	7350	1260	1310	22450
27/03/2013	18500	5250	1750	9500	7550	1290	1340	22750
28/03/2013	18500	5000	1750	9600	7450	1240	1370	22800
29/03/2013	18500	5000	1750	9600	7450	1240	1370	22800
01/04/2013	18350	5300	1710	9900	7450	1250	1380	22150
02/04/2013	18300	5150	1690	9800	7450	1270	1330	22650
03/04/2013	18300	5150	1690	9800	7450	1270	1330	22650
04/04/2013	18400	4900	1610	10000	7450	1230	1280	22750
05/04/2013	18450	4950	1640	10400	7300	1230	1310	22950
08/04/2013	18200	5000	1620	10200	7250	1220	1290	22900

09/04/2013	18150	4975	1620	10050	7500	1210	1310	22700
10/04/2013	18200	5000	1610	10250	7500	1230	1320	22750
11/04/2013	18300	5000	1660	10050	7500	1230	1340	22900
12/04/2013	18600	5100	1700	10200	7400	1230	1390	22800
15/04/2013	18550	5050	1700	10100	7400	1260	1390	22500
16/04/2013	18250	5050	1730	10150	7450	1260	1380	22850
17/04/2013	18150	5200	1730	10250	7500	1260	1360	22700
18/04/2013	18250	5250	1730	10550	7500	1270	1330	22650
19/04/2013	18600	5250	1710	10650	7400	1320	1350	22650
22/04/2013	18700	5300	1710	10600	7350	1330	1350	22650
23/04/2013	18700	5300	1710	10600	7350	1330	1350	22650
24/04/2013	17600	5200	1710	11250	7550	1370	1350	23000
25/04/2013	17500	5250	1690	11650	7550	1360	1340	23000
26/04/2013	17400	5050	1680	11400	7500	1350	1350	22750
29/04/2013	17450	5100	1680	11300	7450	1380	1350	23000
30/04/2013	17700	5150	1730	11450	7350	1390	1350	26250
01/05/2013	17500	5150	1790	11850	7400	1360	1350	25700
02/05/2013	17550	5100	1760	12100	7350	1350	1350	25250
03/05/2013	17650	5000	1750	12000	7250	1330	1350	25900
06/05/2013	17900	4875	1750	12000	7400	1350	1370	27000
07/05/2013	17650	5000	1800	12150	7300	1400	1440	27050
08/05/2013	17300	5200	1790	11950	7350	1430	1460	27700
09/05/2013	17300	5200	1790	11950	7350	1430	1460	27700
10/05/2013	17150	5300	1800	11700	7200	1450	1460	27500
13/05/2013	17400	5350	1760	11750	7050	1470	1440	27650
14/05/2013	17300	5350	1780	11900	7250	1460	1500	28200
15/05/2013	17300	5200	1780	12000	7250	1460	1480	28100
16/05/2013	17000	5200	1840	12400	7400	1470	1500	28150
17/05/2013	17200	5250	1820	12700	7450	1540	1490	31250
20/05/2013	17450	5350	1820	12750	7800	1540	1530	31550
21/05/2013	17700	5400	1820	12500	7600	1500	1530	30950
22/05/2013	18350	5300	1840	12550	7650	1510	1550	30850
23/05/2013	18200	5350	1790	12400	7550	1450	1550	31600
24/05/2013	18150	5250	1800	12600	7500	1480	1560	32300
27/05/2013	18300	5200	1800	12550	7300	1450	1580	31500
28/05/2013	18950	5200	1840	12700	7450	1480	1580	33050
29/05/2013	19050	5400	1920	12650	7350	1530	1680	33450
30/05/2013	18850	5250	1900	12750	7350	1500	1690	32350

31/05/2013	19500	5350	2200	13100	7350	1450	1840	30500
03/06/2013	18350	5800	1990	12600	7350	1430	1790	29050
04/06/2013	18600	5900	2000	12900	7350	1440	1770	31300
05/06/2013	19300	5950	2000	12700	7250	1410	1770	31000
06/06/2013	19300	5950	2000	12700	7250	1410	1770	31000
07/06/2013	18550	5700	1940	11900	7050	1370	1680	28900
10/06/2013	19150	5500	1860	11400	6700	1350	1580	27700
11/06/2013	19450	5450	1730	11100	6350	1280	1600	26900
12/06/2013	20950	5300	1830	10900	6900	1310	1570	29450
13/06/2013	20600	4900	1790	10700	6800	1290	1530	27800
14/06/2013	20000	5100	1870	10800	6900	1320	1650	28850
17/06/2013	19650	5200	1910	10800	6850	1340	1660	28900
18/06/2013	20200	5400	1890	10850	6650	1300	1650	29500
19/06/2013	19750	5550	1860	11000	6550	1320	1570	29000
20/06/2013	19000	5250	1820	10750	6450	1230	1490	27550
21/06/2013	18700	4800	1780	10500	6300	1190	1470	27250
24/06/2013	18250	4800	1700	10750	6350	1200	1490	26400
25/06/2013	19050	4725	1710	10350	6350	1190	1470	26000
26/06/2013	19300	4850	1750	11000	6900	1320	1510	28000
27/06/2013	19200	5200	1750	11350	7050	1380	1480	29400
28/06/2013	19700	5300	1800	12200	7350	1440	1520	30750
01/07/2013	19600	5300	1820	12150	6850	1390	1480	29550
02/07/2013	19200	5400	1780	11750	7000	1440	1490	29950
03/07/2013	18100	4900	1710	11500	7200	1390	1380	28300
04/07/2013	17350	4875	1690	10900	7050	1380	1350	28200
05/07/2013	18000	4825	1670	11100	7050	1440	1330	29300
08/07/2013	17450	4525	1500	10400	6600	1330	1170	28000
09/07/2013	17450	4600	1390	10450	6550	1350	1110	27850
10/07/2013	17500	4650	1450	10800	6850	1390	1130	29400
11/07/2013	18000	4900	1510	10950	7000	1430	1170	31650
12/07/2013	18150	4775	1450	11000	7050	1450	1160	31000
15/07/2013	17850	4700	1450	11150	7150	1470	1180	31750
16/07/2013	17300	4650	1500	11000	7100	1450	1250	31750
17/07/2013	17100	4750	1560	11250	7250	1470	1320	32900
18/07/2013	17500	4675	1600	11250	7200	1500	1350	33900
19/07/2013	17500	4650	1610	11000	7300	1480	1350	34600
22/07/2013	17200	4650	1600	11100	7100	1470	1340	33000
23/07/2013	17350	4725	1650	11400	7100	1480	1360	34000

24/07/2013	16750	4900	1600	11450	6700	1420	1360	34000
25/07/2013	16000	4875	1570	11350	6700	1400	1360	32850
26/07/2013	16000	4775	1520	11300	6700	1360	1310	32950
29/07/2013	15850	4750	1550	11150	6700	1330	1310	31800
30/07/2013	15850	4650	1550	11200	6850	1400	1280	32200
31/07/2013	15550	4325	1580	11200	6500	1430	1280	31800
01/08/2013	15350	4400	1570	11500	6750	1450	1270	31950
02/08/2013	15200	4475	1550	11550	6800	1450	1290	31450
05/08/2013	15200	4475	1550	11550	6800	1450	1290	31450
06/08/2013	15200	4475	1550	11550	6800	1450	1290	31450
07/08/2013	15200	4475	1550	11550	6800	1450	1290	31450
08/08/2013	15200	4475	1550	11550	6800	1450	1290	31450
09/08/2013	15200	4475	1550	11550	6800	1450	1290	31450
12/08/2013	14600	4725	1570	10900	6750	1470	1250	30000
13/08/2013	14600	4850	1650	11100	6900	1460	1300	31350
14/08/2013	14850	4900	1630	11200	6950	1500	1370	31250
15/08/2013	14800	4900	1660	11250	6850	1470	1400	30700
16/08/2013	14600	4900	1600	10850	6700	1440	1360	30700
19/08/2013	14100	4500	1500	10100	6350	1350	1220	29200
20/08/2013	13300	4400	1380	9700	6150	1300	1200	28900
21/08/2013	14450	4650	1400	9900	6050	1340	1180	29500
22/08/2013	15850	4250	1340	9900	6200	1300	1080	29750
23/08/2013	16000	4250	1350	10000	6250	1340	1050	29000
26/08/2013	18300	4150	1310	9900	5900	1300	1020	28300
27/08/2013	18250	3875	1210	9200	5800	1220	990	27850
28/08/2013	18050	3550	1230	9300	5750	1200	1030	28000
29/08/2013	18400	3900	1280	10100	6200	1310	1080	28350
30/08/2013	19750	3975	1310	10000	6500	1350	1150	31200
02/09/2013	20100	3975	1240	9400	5900	1300	1080	30600
03/09/2013	20650	4000	1260	9650	5900	1320	1060	31500
04/09/2013	20600	3900	1260	9250	5950	1260	1030	30550
05/09/2013	20800	3600	1240	9000	6000	1290	980	31000
06/09/2013	21000	3525	1240	9000	5950	1250	990	31900
09/09/2013	21600	3625	1250	9650	6350	1310	1050	32000
10/09/2013	21750	3775	1400	9700	6650	1400	1110	33000
11/09/2013	21700	3950	1380	9800	6650	1350	1090	33000
12/09/2013	21600	4175	1420	9750	6550	1340	1090	30850
13/09/2013	20100	4100	1410	10500	6500	1350	1070	30700



16/09/2013	19750	4300	1460	11200	6750	1370	1130	32150
17/09/2013	20300	4275	1470	11400	6850	1340	1200	31500
18/09/2013	20550	4250	1430	11200	6700	1320	1190	30750
19/09/2013	20450	4475	1660	11500	6850	1350	1350	31600
20/09/2013	19150	4475	1600	10950	6950	1360	1310	32000
23/09/2013	19350	4425	1570	10700	6950	1360	1280	31950
24/09/2013	19050	4200	1500	10850	6700	1320	1190	31500
25/09/2013	19600	4200	1480	10250	6750	1300	1140	31500
26/09/2013	19800	4250	1460	10200	6800	1300	1120	30800
27/09/2013	19450	4300	1460	10650	7050	1300	1120	30950
30/09/2013	19500	4000	1440	10250	7050	1180	1090	30150
01/10/2013	19300	4150	1470	10450	7000	1270	1110	30300
02/10/2013	19400	4225	1510	10600	6950	1310	1110	31000
03/10/2013	19400	4250	1490	10800	6900	1310	1100	30900
04/10/2013	18550	4250	1470	10350	6700	1310	1080	30700
07/10/2013	18700	4375	1400	10350	6750	1340	1020	30300
08/10/2013	19600	4575	1430	10600	6700	1340	1030	30450
09/10/2013	20100	4725	1420	11050	6700	1340	1030	30250
10/10/2013	20750	4625	1450	10950	6700	1330	1020	30300
11/10/2013	21100	4650	1490	11100	7000	1340	1020	30750
14/10/2013	21100	4650	1490	11100	7000	1340	1020	30750
15/10/2013	21100	4650	1490	11100	7000	1340	1020	30750
16/10/2013	21050	4725	1460	11200	6950	1300	1000	30100
17/10/2013	20950	4725	1510	11150	7100	1320	1010	30600
18/10/2013	20750	4900	1550	11000	7100	1330	1020	30800
21/10/2013	21050	4900	1600	11150	7250	1370	1040	31500
22/10/2013	21000	4725	1590	11000	7150	1340	1030	30800
23/10/2013	21100	4750	1610	10950	7400	1350	1040	31700
24/10/2013	20900	4950	1620	11050	7400	1370	1050	32150
25/10/2013	20650	5050	1620	11200	7400	1360	1050	32050
28/10/2013	20600	5300	1630	11400	7450	1360	1140	32000
29/10/2013	20250	5100	1630	11200	7300	1330	1130	31800
30/10/2013	19600	5050	1630	11050	6950	1330	1180	31250
31/10/2013	18600	4850	1570	11200	6650	1300	1130	30000
01/11/2013	19600	4725	1540	10800	6500	1270	1090	29800
04/11/2013	20300	4775	1510	10850	6550	1300	1070	29850
05/11/2013	20300	4775	1510	10850	6550	1300	1070	29850
06/11/2013	20700	4850	1510	10850	6650	1310	1050	30800

07/11/2013	21050	4925	1540	10900	6750	1340	1070	30200
08/11/2013	20850	4925	1500	10900	6700	1330	1060	30150
11/11/2013	20550	4900	1460	10650	6500	1300	1030	29800
12/11/2013	20900	4750	1420	10300	6250	1290	990	29800
13/11/2013	21200	4425	1360	10000	6450	1280	960	29600
14/11/2013	21550	4550	1450	10250	6550	1300	970	29900
15/11/2013	21900	4500	1430	9950	6600	1280	940	29000
18/11/2013	22000	4525	1420	10350	6700	1300	920	29500
19/11/2013	22400	4675	1410	10150	6750	1290	920	29200
20/11/2013	22500	4950	1380	10400	6750	1280	920	28700
21/11/2013	22650	4850	1400	10250	6650	1260	910	27550
22/11/2013	22950	4825	1400	10300	6600	1280	910	27450
25/11/2013	22000	4775	1380	10300	6500	1250	900	27800
26/11/2013	21650	4550	1360	10250	6650	1260	890	26000
27/11/2013	21900	4675	1390	10000	6700	1230	910	26700
28/11/2013	22150	4725	1360	9900	6650	1220	900	26650
29/11/2013	22250	4675	1350	10000	6650	1220	910	26600
02/12/2013	22450	4800	1480	10200	6700	1240	970	27050
03/12/2013	22700	4850	1460	10200	6650	1220	940	26250
04/12/2013	23050	4800	1450	9900	6600	1220	920	25800
05/12/2013	24050	4825	1450	9900	6500	1220	900	25500
06/12/2013	24700	4900	1440	9700	6500	1180	900	25500
09/12/2013	24750	4900	1390	9800	6700	1180	900	26250
10/12/2013	25100	4850	1370	10200	6800	1230	890	26800
11/12/2013	25150	4700	1370	10050	6700	1220	900	26600
12/12/2013	23600	4825	1340	10000	6500	1200	890	26500
13/12/2013	23800	4750	1330	9900	6600	1190	900	25950
16/12/2013	22550	4725	1290	9850	6500	1200	900	25750
17/12/2013	22650	4750	1340	10050	6600	1200	910	26000
18/12/2013	23200	4775	1320	10150	6600	1210	910	25900
19/12/2013	23550	4750	1300	10200	6550	1250	910	25900
20/12/2013	24100	4775	1270	10050	6450	1200	900	26000
23/12/2013	24000	4525	1250	10150	6450	1200	900	25550
24/12/2013	24350	4475	1230	10100	6500	1220	900	26100
25/12/2013	24350	4475	1230	10100	6500	1220	900	26100
26/12/2013	24350	4475	1230	10100	6500	1220	900	26100
27/12/2013	24650	4400	1240	10150	6450	1240	900	26600
30/12/2013	25100	4375	1290	10200	6600	1250	910	26000

31/12/2013	25100	4375	1290	10200	6600	1250	910	26000
01/01/2014	25100	4375	1290	10200	6600	1250	910	26000
02/01/2014	24650	4475	1320	10450	6700	1320	910	26800
03/01/2014	23450	4475	1290	10200	6700	1320	900	26500
06/01/2014	22025	4435	1250	10125	6675	1310	875	26750
07/01/2014	21500	4420	1210	10100	6625	1285	870	26200
08/01/2014	22800	4445	1265	10075	6700	1300	870	26200
09/01/2014	22500	4460	1270	9975	6575	1330	870	26075
10/01/2014	21350	4520	1370	10000	6675	1370	895	25900
13/01/2014	21175	4750	1525	10150	6725	1430	940	27025
14/01/2014	21175	4750	1525	10150	6725	1430	940	27025
15/01/2014	20825	4750	1490	10750	6675	1430	960	28025
16/01/2014	20950	4630	1435	10850	6725	1400	965	27800
17/01/2014	20875	4685	1455	10925	6675	1390	965	27650
20/01/2014	21700	4640	1455	10975	6750	1405	965	28050
21/01/2014	21900	4630	1515	11100	6775	1410	975	28150
22/01/2014	22050	4580	1505	11600	7175	1415	975	28500
23/01/2014	22950	4445	1475	11300	7275	1410	985	28575
24/01/2014	22750	4470	1440	11200	7275	1410	980	28075
27/01/2014	21250	4350	1340	10850	6950	1355	930	27125
28/01/2014	21425	4190	1380	10675	6950	1405	935	27700
29/01/2014	21575	4410	1460	11200	6925	1420	955	28500
30/01/2014	21475	4400	1440	11000	6975	1405	950	28550
31/01/2014	21475	4400	1440	11000	6975	1405	950	28550
03/02/2014	21650	4400	1440	10725	6925	1385	940	28400
04/02/2014	21350	4370	1420	10775	6825	1410	925	27850
05/02/2014	21400	4285	1435	10975	6875	1410	920	28125
06/02/2014	22000	4200	1500	11100	7025	1420	925	28200
07/02/2014	22150	4285	1540	11150	7050	1415	930	28225
10/02/2014	22375	4440	1535	11100	7050	1400	930	28100
11/02/2014	23125	4505	1565	11050	6900	1400	930	27600
12/02/2014	23500	4500	1545	10950	7000	1410	930	28000
13/02/2014	23150	4485	1555	10925	6975	1390	925	28125
14/02/2014	23200	4500	1555	10875	7000	1395	935	28375
17/02/2014	22900	4560	1575	10800	7025	1405	955	28375
18/02/2014	23200	4580	1550	10700	7000	1395	940	28075
19/02/2014	23850	4475	1545	10800	7000	1420	930	28400
20/02/2014	23750	4535	1555	10775	7000	1440	930	28300

21/02/2014	23500	4575	1580	10900	7050	1470	950	28400
24/02/2014	23800	4590	1560	11200	6975	1460	940	28375
25/02/2014	23750	4545	1530	11250	6975	1435	935	28400
26/02/2014	23825	4545	1460	10900	6950	1400	930	28025
27/02/2014	25175	4600	1515	11000	7025	1400	945	28025
28/02/2014	25500	4560	1535	11175	7175	1450	940	28575
03/03/2014	25400	4600	1510	11125	7150	1430	935	28275
04/03/2014	25350	4720	1530	10925	7125	1430	930	28025
05/03/2014	27100	4780	1540	10950	7225	1430	930	28125
06/03/2014	27600	4750	1575	10925	7400	1420	950	28300
07/03/2014	27575	4745	1620	10900	7425	1425	1025	28125
10/03/2014	27900	4795	1640	10875	7400	1415	1065	28250
11/03/2014	27825	4760	1675	11000	7500	1420	1060	28475
12/03/2014	27450	4675	1675	11000	7550	1415	1085	29000
13/03/2014	26300	4650	1670	11025	7700	1445	1095	30300
14/03/2014	26075	4780	1690	11100	7750	1475	1135	30875
17/03/2014	26150	5050	1710	11150	7675	1490	1245	29725
18/03/2014	26050	5025	1685	10850	7500	1460	1250	28975
19/03/2014	26425	4875	1705	10825	7475	1420	1245	28900
20/03/2014	25900	4830	1620	10800	7225	1415	1190	28125
21/03/2014	26100	4875	1675	10975	7325	1425	1185	28125
24/03/2014	26325	4715	1680	10200	7050	1450	1165	28300
25/03/2014	24925	4800	1685	10000	7025	1445	1130	28250
26/03/2014	25400	4835	1685	10050	7075	1465	1135	28725
27/03/2014	25400	4825	1675	10150	7250	1475	1080	28700
28/03/2014	26000	4835	1635	10100	7300	1465	1085	29250
31/03/2014	26000	4835	1635	10100	7300	1465	1085	29250
01/04/2014	26175	5075	1685	10075	7425	1505	1155	30000
02/04/2014	25800	5075	1670	10000	7400	1495	1145	29925
03/04/2014	25350	4930	1665	10050	7300	1505	1170	30000
04/04/2014	25350	4875	1640	10000	7150	1500	1155	29400
07/04/2014	25700	4930	1645	10075	7225	1525	1195	29950
08/04/2014	26250	4900	1650	10000	7175	1510	1200	29675
09/04/2014	26250	4900	1650	10000	7175	1510	1200	29675
10/04/2014	26300	4715	1505	9925	7025	1510	1120	29550
11/04/2014	27700	4660	1490	9925	7200	1510	1095	30525
14/04/2014	27750	4750	1540	10000	7225	1520	1130	30750
15/04/2014	27225	4855	1585	10050	7150	1515	1125	30675

16/04/2014	27100	4800	1620	9975	7050	1535	1115	30100
17/04/2014	28350	4775	1615	9975	7200	1545	1115	30800
18/04/2014	28350	4775	1615	9975	7200	1545	1115	30800
21/04/2014	28000	4730	1605	9975	7175	1515	1100	30700
22/04/2014	28275	4785	1630	9975	7225	1540	1065	30825
23/04/2014	29100	4760	1620	10000	7150	1550	1055	29975
24/04/2014	29000	4790	1615	10000	7200	1540	1075	29300
25/04/2014	28300	4785	1620	9975	7150	1545	1085	29025
28/04/2014	28500	4800	1550	10000	7000	1530	1065	28575
29/04/2014	29000	4770	1565	10000	7025	1525	1070	29000
30/04/2014	29400	4770	1560	10000	7050	1545	1070	29250
01/05/2014	29400	4770	1560	10000	7050	1545	1070	29250
02/05/2014	29425	4655	1540	9975	7050	1560	1070	29200
05/05/2014	29675	4615	1540	9975	7025	1560	1060	29725
06/05/2014	29100	4575	1525	9975	7025	1555	1050	29375
07/05/2014	29225	4555	1565	10000	7025	1545	1060	30225
08/05/2014	29025	4555	1575	9975	7025	1550	1055	30400
09/05/2014	29225	4550	1575	9975	7050	1560	1060	30750
12/05/2014	29000	4655	1575	9950	7075	1570	1090	30575
13/05/2014	28500	4660	1580	10000	7050	1550	1110	30200
14/05/2014	28775	4710	1600	10300	7050	1605	1130	30800
15/05/2014	28775	4710	1600	10300	7050	1605	1130	30800
16/05/2014	28975	4640	1600	10325	7100	1610	1140	30800
19/05/2014	29125	4560	1530	10225	7025	1630	1120	30500
20/05/2014	27500	4380	1525	9975	6775	1650	1095	29600
21/05/2014	26800	4420	1560	10050	6750	1610	1100	30000
22/05/2014	26900	4445	1590	9975	6775	1615	1110	30025
23/05/2014	27000	4435	1580	10200	6700	1630	1100	30025
26/05/2014	26850	4440	1560	10175	6775	1630	1100	30125
27/05/2014	26850	4440	1560	10175	6775	1630	1100	30125
28/05/2014	27800	4460	1605	10275	6800	1615	1095	30200
29/05/2014	27800	4460	1605	10275	6800	1615	1095	30200
30/05/2014	27325	4125	1610	10200	6825	1540	1035	29125
02/06/2014	26875	4300	1555	10075	6875	1595	1020	29750
03/06/2014	26850	4360	1545	10075	6950	1580	1025	30050
04/06/2014	26800	4385	1575	10200	6900	1585	1045	30275
05/06/2014	26875	4345	1585	10100	6850	1585	1055	30450
06/06/2014	26850	4295	1600	10100	6800	1605	1045	30475

09/06/2014	26250	4260	1570	10025	6800	1605	1030	29975
10/06/2014	26650	4395	1580	10200	6850	1670	1030	30200
11/06/2014	26650	4520	1595	10200	6900	1670	1050	30475
12/06/2014	26400	4550	1580	10200	6875	1630	1050	30000
13/06/2014	26475	4605	1575	10225	6875	1610	1050	29800
16/06/2014	26600	4600	1575	10000	6800	1600	1040	29650
17/06/2014	27025	4550	1580	10000	6825	1645	1050	29500
18/06/2014	27150	4580	1570	10000	6825	1635	1040	29400
19/06/2014	27000	4510	1525	10100	6825	1600	1025	29550
20/06/2014	27400	4410	1565	10100	6825	1620	1005	29875
23/06/2014	27400	4435	1515	9975	6825	1645	1000	29800
24/06/2014	28400	4500	1500	10000	6825	1660	965	29700
25/06/2014	29000	4530	1470	9975	6775	1660	940	29700
26/06/2014	29300	4435	1470	10000	6825	1670	960	29800
27/06/2014	28700	4380	1435	9900	6800	1660	945	29475
30/06/2014	28175	4330	1485	10000	6700	1660	960	29275
01/07/2014	27300	4280	1470	10075	6750	1685	955	29750
02/07/2014	27600	4370	1500	10225	6825	1695	965	30325
03/07/2014	27225	4485	1505	10150	6825	1695	980	30200
04/07/2014	27500	4520	1555	10075	6800	1685	1010	30300
07/07/2014	27775	4575	1590	10225	6900	1695	1060	30900
08/07/2014	27000	4515	1590	10225	6900	1715	1090	31225
09/07/2014	27000	4515	1590	10225	6900	1715	1090	31225
10/07/2014	27150	4715	1620	10350	7075	1745	1165	31400
11/07/2014	26500	4655	1555	10075	7100	1735	1130	30400
14/07/2014	26475	4550	1600	10025	7050	1700	1130	30400
15/07/2014	25950	4625	1630	9975	7050	1725	1150	31375
16/07/2014	26075	4710	1660	10500	7075	1790	1170	31250
17/07/2014	25900	4550	1620	10500	6975	1735	1140	30900
18/07/2014	26150	4510	1635	10475	7075	1720	1140	30925
21/07/2014	26250	4520	1665	10500	7050	1745	1160	31100
22/07/2014	26000	4405	1650	10450	7000	1740	1150	31200
23/07/2014	26000	4435	1650	10525	7050	1760	1145	31225
24/07/2014	26575	4495	1610	10475	7075	1750	1100	31150
25/07/2014	26700	4400	1585	10450	7075	1730	1100	30750
28/07/2014	26700	4400	1585	10450	7075	1730	1100	30750
29/07/2014	26700	4400	1585	10450	7075	1730	1100	30750
30/07/2014	26700	4400	1585	10450	7075	1730	1100	30750

31/07/2014	26700	4400	1585	10450	7075	1730	1100	30750
01/08/2014	26700	4400	1585	10450	7075	1730	1100	30750
04/08/2014	26250	4620	1575	10600	7175	1655	1105	31475
05/08/2014	26275	4620	1600	10550	7075	1635	1140	30900
06/08/2014	26650	4650	1570	10350	7050	1595	1120	30750
07/08/2014	26450	4605	1600	10475	7000	1630	1130	30775
08/08/2014	26225	4600	1600	10350	6975	1630	1155	30500
11/08/2014	26500	4690	1615	10375	7075	1640	1170	31250
12/08/2014	26250	4675	1620	10375	7100	1640	1205	31350
13/08/2014	26275	4800	1630	10500	7125	1630	1220	32000
14/08/2014	26275	4800	1640	10450	7150	1630	1180	31975
15/08/2014	26050	4930	1630	10475	7100	1615	1165	31900
18/08/2014	26075	5050	1625	10450	7125	1630	1170	31500
19/08/2014	26550	4950	1615	10225	7000	1640	1165	31450
20/08/2014	26350	4845	1630	10275	7075	1680	1170	31900
21/08/2014	26175	4990	1630	10250	7125	1685	1170	31900
22/08/2014	26150	5050	1640	10100	7100	1690	1150	31600
25/08/2014	25900	5000	1630	10300	7075	1675	1120	31500
26/08/2014	25850	4980	1630	10275	7000	1665	1075	31675
27/08/2014	25900	4915	1630	10500	6950	1665	1080	31950
28/08/2014	26000	5100	1625	10550	6950	1680	1085	32100
29/08/2014	25500	5250	1605	10500	6875	1660	1070	31025
01/09/2014	25550	5500	1620	10900	7025	1680	1060	32000
02/09/2014	25625	5675	1630	10900	7025	1675	1050	32000
03/09/2014	25850	5600	1640	10950	7075	1685	1070	32000
04/09/2014	25500	5300	1630	10900	7025	1680	1065	31675
05/09/2014	25800	5250	1645	10900	6975	1680	1045	31825
08/09/2014	25775	5300	1610	10975	7000	1690	1040	31850
09/09/2014	25300	5325	1590	10850	7000	1675	1015	31300
10/09/2014	24425	5325	1530	10775	6950	1660	1000	31150
11/09/2014	23550	5250	1540	10650	6950	1660	1000	31175
12/09/2014	23350	5225	1550	11275	7050	1665	1000	31300
15/09/2014	23300	5225	1520	11250	7025	1670	1015	31325
16/09/2014	23000	5225	1520	10975	6975	1655	1005	31600
17/09/2014	23075	5225	1605	11200	7075	1670	1055	31900
18/09/2014	23850	5250	1595	11225	7100	1670	1050	31975
19/09/2014	23875	5250	1590	11300	7100	1675	1045	31750
22/09/2014	23600	5250	1600	11200	7125	1690	1035	31975

23/09/2014	23150	5225	1555	10825	7025	1700	1025	31500
24/09/2014	23175	5275	1570	11000	7050	1675	1015	31325
25/09/2014	23500	5225	1635	11150	6925	1700	1015	31300
26/09/2014	23200	5200	1600	11300	6950	1695	990	31800
29/09/2014	23000	5325	1570	11350	6975	1695	960	32000
30/09/2014	23000	5450	1545	11350	7000	1700	940	31800
01/10/2014	23100	5350	1565	11200	6975	1675	970	31800
02/10/2014	22600	5175	1500	10750	6825	1660	920	31650
03/10/2014	22025	5150	1450	10950	6775	1670	900	30775
06/10/2014	22100	5050	1475	10925	6775	1665	905	30750
07/10/2014	22475	5025	1480	10850	6875	1660	940	30650
08/10/2014	22100	4880	1445	10600	6725	1655	915	30575
09/10/2014	22325	4870	1500	11075	6775	1655	960	30700
10/10/2014	21900	4760	1460	11100	6850	1640	980	30800
13/10/2014	21900	4800	1435	11025	6800	1615	970	30500
14/10/2014	21800	4705	1455	11025	6950	1605	965	30925
15/10/2014	20825	4805	1475	11400	7000	1605	970	31100
16/10/2014	20100	4880	1495	11325	6825	1670	975	30925
17/10/2014	19950	4920	1540	11400	6975	1690	1030	31950
20/10/2014	19600	4890	1580	11000	6900	1685	1005	31175
21/10/2014	19425	4810	1570	11325	6800	1700	1010	31625
22/10/2014	19625	4965	1600	11175	6775	1685	1045	32025
23/10/2014	19675	4905	1600	11375	6750	1700	1050	31200
24/10/2014	20300	4920	1585	11400	6650	1700	1055	30600
27/10/2014	20300	4945	1525	11100	6475	1660	1045	30050
28/10/2014	19975	4805	1520	10900	6400	1680	1040	29875
29/10/2014	21075	4765	1565	11050	6575	1705	1060	31100
30/10/2014	23000	4800	1570	11000	6600	1710	1070	30450
31/10/2014	23500	4925	1605	11050	6825	1705	1070	30400
03/11/2014	23850	4850	1595	11000	6850	1685	1075	30450
04/11/2014	23200	4880	1590	10900	6725	1705	1075	30375
05/11/2014	23000	4840	1575	10850	6625	1680	1040	30325
06/11/2014	23025	4820	1565	10800	6500	1685	1030	30100
07/11/2014	22925	4775	1540	11000	6450	1655	1005	29800
10/11/2014	22925	4685	1525	11050	6425	1650	1020	29925
11/11/2014	23600	4565	1535	11175	6525	1690	1030	30525
12/11/2014	24150	4620	1545	11175	6550	1685	1035	30550
13/11/2014	23650	4640	1550	11250	6575	1685	1030	30650



14/11/2014	23250	4685	1520	11025	6575	1695	1030	30450
17/11/2014	23550	4660	1550	11025	6675	1725	1030	31050
18/11/2014	23750	4695	1580	11000	6650	1740	1060	31600
19/11/2014	23975	4705	1640	11150	6650	1780	1065	31100
20/11/2014	24775	4600	1635	11225	6650	1760	1075	31400
21/11/2014	25100	4635	1670	11075	6750	1750	1130	31450
24/11/2014	24975	4670	1685	11375	6800	1780	1130	31500
25/11/2014	24025	4625	1705	11450	6775	1770	1140	31700
26/11/2014	24175	4605	1715	11400	6675	1755	1150	31600
27/11/2014	24450	4650	1735	11375	6725	1740	1160	32000
28/11/2014	24000	4650	1770	11250	6700	1750	1165	31800
01/12/2014	23025	4605	1820	11400	6625	1765	1155	31375
02/12/2014	23200	4600	1835	11400	6675	1795	1175	31275
03/12/2014	23125	4435	1820	11400	6600	1830	1145	31275
04/12/2014	23425	4520	1830	11600	6625	1800	1175	31575
05/12/2014	24400	4525	1845	11750	6675	1780	1175	31675
08/12/2014	23900	4535	1840	11600	6625	1725	1155	31150
09/12/2014	23875	4475	1840	11850	6650	1725	1110	31025
10/12/2014	23900	4570	1825	11800	6600	1770	1130	31100
11/12/2014	24000	4595	1810	11500	6525	1770	1120	30900
12/12/2014	23675	4670	1785	11700	6550	1775	1100	30975
15/12/2014	23125	4670	1695	11800	6575	1800	1070	31225
16/12/2014	22500	4550	1660	11500	6525	1740	1015	31200
17/12/2014	22400	4430	1765	11775	6400	1725	995	30700
18/12/2014	23300	4330	1840	12000	6450	1775	1030	31700
19/12/2014	22900	4285	1830	12325	6550	1800	1025	32000
22/12/2014	22950	4175	1795	12275	6550	1825	990	31500
23/12/2014	23275	4205	1795	12275	6625	1820	990	31500
24/12/2014	23300	4080	1790	12400	6600	1830	990	31525
25/12/2014	23300	4080	1790	12400	6600	1830	990	31525
26/12/2014	23300	4080	1790	12400	6600	1830	990	31525
29/12/2014	23750	4080	1790	12500	6625	1830	1020	31950
30/12/2014	24250	4120	1805	13100	6750	1830	1020	32300
31/12/2014	24250	4120	1805	13100	6750	1830	1020	32300
01/01/2015	24250	4120	1805	13100	6750	1830	1020	32300
02/01/2015	24575	4500	1865	13150	7450	1810	1030	32525
05/01/2015	24675	4550	1925	13150	7475	1810	1025	32475
06/01/2015	24300	4550	1900	12850	7375	1810	1000	32475

07/01/2015	24700	4540	1930	13000	7275	1825	1015	33125
08/01/2015	25225	4575	1975	13000	7250	1805	1025	33375
09/01/2015	25975	4605	1960	12950	7400	1790	1045	33225
12/01/2015	25800	4580	1935	12500	7425	1785	1040	32100
13/01/2015	25900	4585	1970	12725	7425	1810	1020	33000
14/01/2015	24900	4530	1960	12700	7425	1785	1005	32650
15/01/2015	24950	4580	1970	12800	7450	1780	1030	32725
16/01/2015	24725	4590	1980	12725	7300	1785	1015	33500
19/01/2015	24500	4510	2005	13075	7325	1790	1015	34000
20/01/2015	24500	4510	2020	13400	7375	1800	1030	34200
21/01/2015	24175	4575	2060	14500	7425	1810	1040	35950
22/01/2015	24000	4530	2145	14675	7625	1840	1065	35800
23/01/2015	24000	4460	2060	14800	7625	1880	1125	36200
26/01/2015	23525	4455	2065	14100	7475	1850	1095	35500
27/01/2015	24275	4610	2100	14775	7475	1855	1095	35525
28/01/2015	23675	4620	1990	14700	7400	1860	1090	35500
29/01/2015	23200	4700	1995	14700	7375	1845	1140	35375
30/01/2015	23250	4695	2020	14500	7550	1865	1135	35825
02/02/2015	23450	4650	2005	14300	7600	1835	1100	36175
03/02/2015	23400	4585	2090	14300	7450	1825	1115	36375
04/02/2015	23625	4590	2045	14100	7500	1835	1110	36400
05/02/2015	24450	4565	2030	14075	7300	1825	1105	35250
06/02/2015	26400	4605	2070	14400	7500	1835	1115	36650
09/02/2015	25200	4675	2095	14525	7475	1835	1120	36125
10/02/2015	24725	4700	2100	14175	7350	1840	1110	35500
11/02/2015	25100	4760	2085	14075	7350	1855	1110	35675
12/02/2015	25425	4855	2095	14225	7350	1850	1105	35675
13/02/2015	25600	4895	2110	14225	7400	1870	1115	36325
16/02/2015	25000	4790	2055	14375	7325	1800	1115	35100
17/02/2015	25200	4815	2020	14200	7400	1810	1115	35900
18/02/2015	25225	4860	2125	14300	7425	1805	1170	35500
19/02/2015	25225	4860	2125	14300	7425	1805	1170	35500
20/02/2015	24975	4870	2120	14200	7350	1790	1165	35325
23/02/2015	24525	4810	2095	14050	7350	1795	1145	36050
24/02/2015	24200	4840	2080	14025	7350	1815	1155	36025
25/02/2015	24500	4845	2120	14050	7425	1820	1165	36350
26/02/2015	24950	4845	2200	14225	7425	1815	1170	36500
27/02/2015	24650	4870	2220	14300	7400	1805	1180	36000

02/03/2015	25550	4975	2200	14325	7425	1830	1175	36400
03/03/2015	25625	4990	2190	14725	7425	1825	1170	36075
04/03/2015	25975	5050	2150	14550	7450	1835	1145	36100
05/03/2015	26300	5075	2140	14375	7450	1805	1145	36250
06/03/2015	26150	4975	2090	14525	7475	1845	1160	37800
09/03/2015	26075	5000	2050	14225	7375	1815	1110	37500
10/03/2015	26075	5175	2060	14500	7475	1800	1110	37800
11/03/2015	26100	5150	2000	14300	7350	1785	1105	38750
12/03/2015	26150	5075	2030	14600	7325	1790	1105	39825
13/03/2015	25625	5125	2025	14625	7325	1800	1095	39875
16/03/2015	26025	5025	2015	15000	7350	1790	1085	39575
17/03/2015	26250	5000	2070	14900	7325	1795	1130	39000
18/03/2015	25625	5025	2050	14900	7400	1785	1155	37500
19/03/2015	25625	4955	2035	14850	7400	1825	1210	38300
20/03/2015	25750	4800	2020	15100	7425	1810	1250	38300
23/03/2015	24725	5025	2020	14800	7400	1825	1240	38625
24/03/2015	24550	5075	2055	14700	7475	1840	1270	38900
25/03/2015	23500	5000	2040	14350	7425	1805	1270	38825
26/03/2015	23200	4995	2005	14175	7375	1835	1275	38500
27/03/2015	23650	4995	2005	14100	7425	1840	1285	39100
30/03/2015	23800	5000	2100	14200	7475	1845	1305	39650
31/03/2015	24300	5125	2135	14675	7450	1865	1350	39650
01/04/2015	24000	5350	2150	14400	7375	1865	1365	39025
02/04/2015	23900	5525	2170	14325	7375	1865	1360	39050
03/04/2015	23900	5525	2170	14325	7375	1865	1360	39050
06/04/2015	23525	5525	2170	14325	7375	1860	1345	39300
07/04/2015	24000	5600	2195	14350	7400	1860	1375	39800
08/04/2015	24175	5575	2155	14500	7350	1845	1370	38700
09/04/2015	24075	5450	2155	14475	7375	1820	1375	39350
10/04/2015	24125	5225	2150	14250	7375	1850	1360	39400
13/04/2015	23750	5125	2070	14200	7350	1845	1380	39775
14/04/2015	23300	5000	2060	14150	7350	1850	1445	38750
15/04/2015	22900	5025	2150	14175	7400	1850	1450	38625
16/04/2015	22750	5075	2140	14400	7450	1870	1460	38100
17/04/2015	23100	5325	2135	14350	7350	1860	1325	38125
20/04/2015	22825	5375	2100	14200	7450	1875	1365	38400
21/04/2015	23350	5500	2115	14300	7425	1890	1390	40000
22/04/2015	23075	5500	2140	14250	7400	1900	1345	40350

23/04/2015	23100	5400	2125	14100	7400	1890	1325	41750
24/04/2015	22000	5150	2110	14100	7375	1905	1315	43000
27/04/2015	20025	5100	2035	13800	7200	1850	1305	42075
28/04/2015	20300	5200	1960	13100	7125	1875	1290	44500
29/04/2015	19925	5200	1860	12650	6700	1785	1210	42250
30/04/2015	20350	5200	1865	13200	6750	1795	1185	42600
01/05/2015	20350	5200	1865	13200	6750	1795	1185	42600
04/05/2015	20250	5000	1890	13600	6875	1825	1305	43000
05/05/2015	20400	5025	1935	13725	6875	1825	1315	44175
06/05/2015	20975	5275	1905	13675	6800	1820	1295	45175
07/05/2015	20450	5200	1855	13900	6750	1820	1275	43400
08/05/2015	21200	5300	1805	13775	6650	1845	1265	44000
11/05/2015	22225	5325	1835	13725	6650	1850	1245	43650
12/05/2015	24150	5100	1840	13675	6925	1795	1240	42500
13/05/2015	26000	5225	1945	13625	7200	1780	1295	42300
14/05/2015	26000	5225	1945	13625	7200	1780	1295	42300
15/05/2015	26400	5375	1920	13600	7175	1795	1280	43500
18/05/2015	26275	5425	1950	13750	7050	1805	1300	43850
19/05/2015	27225	5600	1975	13700	7050	1760	1320	43850
20/05/2015	27400	5725	1980	14000	6925	1800	1315	43350
21/05/2015	25950	5600	1980	13800	6850	1830	1340	42850
22/05/2015	26100	5600	1950	13925	6875	1840	1350	43775
25/05/2015	26500	5550	1930	13975	6875	1830	1345	44400
26/05/2015	27200	5400	1975	14125	7025	1830	1360	45725
27/05/2015	26825	5475	1950	14200	7200	1740	1300	44500
28/05/2015	26225	5500	1900	14150	7300	1755	1300	44950
29/05/2015	24800	5475	1905	14100	7300	1840	1300	43300

*Lampiran 2***Data Return Saham Periode 1 Januari 2013 – 1 Mei 2015**

AALI	AKRA	BSDE	ICBP	INDF	KLBF	LPKR	UNVR
0.048541	0.018349	0.00905	-0.01242	-0.00858	0.009662	0	0.03019974
0.031905	0.018019	0.026668	0	0.008584	0.028438	0.039221	0.011376687
-0.00484	0	0.017392	0	0.01695	-0.02844	0	-0.015963851
0.002424	-0.03637	-0.01739	-0.00627	-0.01695	-0.00966	-0.01942	-0.002301497
-0.00973	-0.01242	-0.0177	0.018692	0.025318	-0.00976	-0.00985	-0.002306806
-0.0123	-0.03822	0	-0.025	0	0.009756	-0.02	-0.009280809
-0.03271	-0.00651	0.008889	-0.01917	-0.01681	-0.02956	0.01005	-0.00936775
0	0.025808	0.008811	0	0	0	0	0.002350177
0.012707	0.025159	0.084083	0.025479	0.025106	0.019803	0.029559	-0.007067167
0.007547	-0.01881	0.023906	0.00627	0	-0.00985	0	0.00471699
-0.03054	0.006309	0	-0.01258	0.016394	0	-0.00976	0.016336419
-0.013	-0.01266	-0.00791	0.006309	-0.00816	-0.00995	-0.0198	-0.00464038
0.007823	0.025159	0.02353	0	-0.0249	0.039221	0.029559	0.043237679
-0.00521	-0.0125	0.02299	-0.00631	0.008368	0	-0.02956	0.024203602
0	-0.00631	0	0	0	0	0	0
0.005208	-0.00635	0.022473	0.018809	0.008299	0.019048	0.00995	-0.024203602
0	0	0	0	0	0	0	0
0.005181	-0.03897	-0.02247	0.006192	-0.0083	0	-0.02	-0.008948606
-0.00518	0.019673	0.007547	-0.00619	0.008299	0	0	-0.009029407
-0.01307	0.006473	0.029632	0	0.00823	0.027909	0.029853	-0.018307147
-0.00264	0	0.049832	-0.00623	0	0.027151	0.019418	-0.00231214
-0.00529	0	-0.02817	0	-0.00823	-0.02715	-0.00966	0.020619287
0.01579	0	-0.00717	0.012423	-0.01667	0	0	-0.004545462
0	0.012821	-0.01449	0	0.016667	0.009132	0	0
-0.00261	-0.00639	-0.02963	0	0	0.026907	0.009662	0.011325149
-0.00525	0.012739	0.036905	-0.00619	0.048397	-0.00889	-0.02927	0
-0.00528	0	-0.0146	0	0.03101	0	0.009852	0.00449439
0	0.012579	-0.01482	-0.00623	0.007605	-0.02715	0.009756	-0.013544225
-0.00265	0.018576	0.007435	-0.00627	0.015038	0	-0.00976	-0.002275314
0.002649	-0.01235	0.050552	0.00627	0	0.027151	0.009756	0.015819539
0	0.030583	0.007018	0	-0.02264	0.0177	0.0381	0.022173857
0.005277	0.006006	-0.00702	0	0.007605	-0.00881	0	-0.002195391

0.005249	0.02367	-0.01418	0	0.015038	0	0.009302	0.010929071
-0.01053	-0.01176	0.021202	0	-0.01504	-0.00889	-0.0093	-0.004357305
-0.02139	-0.01791	-0.00702	0	0	-0.00897	0.009302	-0.006571765
0.021391	-0.00604	0.034606	0	0.007547	0.008969	0.018349	0.019587133
-0.00265	-0.00608	-0.0137	0	0.044125	0.026433	0	-0.002157498
-0.02688	0	0.020479	0.012423	-0.02182	0	0	-0.008676844
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-0.00816	-0.00576	0.013699	0.011976	0.007273	0.016394	-0.01835	-0.024364439
0	0.017192	0.04652	0.0177	0.028573	0.032003	0.018349	0.015573173
0.008163	0.016902	0.038221	-0.00587	0.02778	0.015625	0.026907	0.008791265
0.002706	0.011111	-0.01258	0.005865	0.013606	-0.02353	0.008811	-0.004385972
0	0	0	-0.03572	-0.01361	0.031253	0	0.010929071
0.005391	0.016439	0.018809	0.047346	0.006826	-0.0155	-0.0177	-0.00873368
0.016	0.021506	0.006192	0.034094	0.065813	0	0.052186	0.006557401
0.005277	0.005305	0.018349	0.016621	0	0.030772	0.008439	-0.004366819
-0.00793	0.005277	0	0.016349	-0.01929	0.007547	0	0.006543099
-0.00799	0.031091	-0.0122	-0.03297	0.012903	-0.03054	0	-0.004357305
0.007989	-0.03109	0.012195	0.03297	-0.0129	0.030537	0	0.004357305
-0.01335	0.03618	-0.03077	-0.03297	0.006473	-0.04616	-0.04293	-0.00873368
-0.03002	-0.0102	-0.00627	0.005571	-0.04621	-0.032	0	-0.035718083
-0.00556	0.020305	0.037041	0.027399	-0.02048	0	0.008734	0.013544225
0.016575	0.034571	0	-0.02186	0.033902	0.032003	0	0.008928631
0.013606	0.0381	0	0	-0.01342	-0.00791	0.025752	0.011049836
-0.00814	0.027652	0.041549	-0.03371	0.006734	0	0.016807	-0.008830079
-0.00546	-0.00913	0.011561	0.011364	-0.01351	-0.016	0.016529	0.01102547
-0.01102	-0.02791	-0.02916	-0.05219	-0.02062	-0.04116	0	-0.031182927
0.024625	-0.01905	0.029157	0.074533	0.020619	0.041158	0.055791	0.028987537
0	-0.00966	-0.00576	0.010989	0	0.016	0.015385	-0.013274531
0	0.019231	0.011494	0.037538	0.026847	0.02353	0.022642	0.013274531
0	-0.04879	0	0.010471	-0.01333	-0.03953	0.022141	0.002195391
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-0.00814	0.058269	-0.02312	0.030772	0	0.008032	0.007273	-0.028923039
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0	0	0	0	0	0	0	0
0.00545	-0.04976	-0.04849	0.020203	0	-0.032	-0.03832	0.004405293
0.002714	0.010152	0.018462	0.039221	-0.02034	0	0.023167	0.008752791
-0.01364	0.01005	-0.01227	-0.01942	-0.00687	-0.00816	-0.01538	-0.002181026
-0.00275	-0.00501	0	-0.01482	0.033902	-0.00823	0.015385	-0.008771986

0.002751	0.005013	-0.00619	0.019705	0	0.016394	0.007605	0.002200221
0.005479	0	0.030583	-0.01971	0	0	0.015038	0.006571765
0.016261	0.019803	0.023811	0.014815	-0.01342	0	0.036634	-0.004376375
-0.00269	-0.00985	0	-0.00985	0	0.024098	0	-0.013245227
-0.0163	0	0.017493	0.004938	0.006734	0	-0.00722	0.015435808
-0.00549	0.02927	0	0.009804	0.006689	0	-0.0146	-0.006586193
0.005495	0.009569	0	0.028848	0	0.007905	-0.02231	-0.002205073
0.018997	0	-0.01163	0.009434	-0.01342	0.038615	0.014926	0
0.005362	0.009479	0	-0.00471	-0.00678	0.007547	0	0
0	0	0	0	0	0	0	0
-0.06062	-0.01905	0	0.059514	0.026847	0.029632	0	0.015334364
-0.0057	0.009569	-0.01176	0.034938	0	-0.00733	-0.00743	0
-0.00573	-0.03884	-0.00593	-0.02169	-0.00664	-0.00738	0.007435	-0.010929071
0.002869	0.009852	0	-0.00881	-0.00669	0.021979	0	0.010929071
0.014225	0.009756	0.029328	0.013187	-0.01351	0.00722	0	0.132171773
-0.01136	0	0.034094	0.034338	0.00678	-0.02182	0	-0.021174997
0.002853	-0.00976	-0.0169	0.020878	-0.00678	-0.00738	0	-0.017664836
0.005682	-0.0198	-0.0057	-0.0083	-0.0137	-0.01493	0	0.025416813
0.014065	-0.02532	0	0	0.020479	0.014926	0.014706	0.041593897
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0.036065	-0.01869	0.010929	0.003992	0.006557	0.006645	0.012987	-0.003236249
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0.034903	0	0.021979	0.011881	0.02034	0.020479	0	0.04803402
0.005263	0.03774	0.04256	-0.00394	-0.01351	0.033226	0.061369	0.01203022
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0.008202	-0.03748	0.029414	-0.01626	0	0.036236	0.005362	0.020976601
0.006977	0.051174	0.056353	0.048009	-0.0036	0.01062	0.021165	0.028471674
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0.03297	0.014534	0.019355	-0.00451	-0.02151	0	0	-0.017953804
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0.027632	-0.02319	-0.00323	0.009302	0	0.017762	-0.0107	0.011509645
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0.055116	0.012029	0.036979	0.009132	0.010734	0	0.016	0
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0.066755	0.012632	0.006515	0.002286	0.013938	0	0	0.003561892
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-0.00749	0.008163	0.029656	0.006601	0.02174	0.011905	0.054877	0.032607263
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0.010243	0.031716	0.018928	-0.01333	-0.00368	-0.00886	0.034067	0.012568901
0.002545	-0.01216	0	0.017739	-0.0037	0.008863	0.004773	-0.026098753
0.031272	0.003053	-0.00942	0.002195	-0.01493	0	0.004751	-0.019418086
0	0.005068	-0.03859	-0.02667	-0.02667	-0.02381	-0.00952	-0.018137348
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0.053606	-0.00836	0.029175	0.013668	0.026977	0.014771	0.019048	0.040185809
0.087407	0.007318	0.00319	-0.00454	0.003795	0.002928	0.00939	-0.021121825
0.021506	0.025708	0.022048	0.004535	0.033523	-0.00293	0	-0.001643386
0.014784	-0.01535	-0.00625	-0.00454	0.003656	-0.0118	0.004662	0.001643386
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0.023038	0.011976	0.006494	0	0.003824	-0.00296	0.004843	0.000818666
-0.02092	0.00432	0.003231	0.006689	0.00381	0	-0.00484	0.003267977
-0.01706	0.009652	-0.01954	-0.0202	0	0.005917	0	-0.006546668

0.012821	-0.00535	0.019545	0	0.015095	0.017544	0	0.019512814
0.008457	0.007483	0.01917	-0.00227	-0.00375	0.008658	0.02871	0.017558312
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0.032823	-0.02257	-0.00305	0.006704	0	-0.0113	0.009346	0.009600074
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0.011311	0.009725	0.011594	-0.0022	0.007463	-0.00858	0.008658	0.012578782
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0.007572	-0.00109	0.008208	0	0.007519	0.016854	0.017168	-0.003192341
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0.004175	0.005456	-0.00825	-0.02575	-0.01143	0	-0.00889	-0.006451635
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0.031383	0.034201	0.016807	0.046762	0	0.002699	0	0.000703978
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