

**ANALISIS RESIKO SAHAM SYARI'AH MENGGUNAKAN  
PENDEKATAN BAYESIAN *GENERALIZED AUTOREGRESSIVE  
CONDITIONAL HETEROSCEDASTICITY (GARCH)***

(Studi Kasus: Penutupan Indeks Harga Saham Harian *Jakarta Islamic Index (JII)* Periode 1  
Januari 2014 – 31 Maret 2016)

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**HALAMAN PERSEMBAHAN**

*Perjuangan Merupakan Pengalaman Berharga*

*Yang Dapat Menjadikan Kita Manusia Yang Berkualitas*

*Skripsi Ini Kupersembahkan*

*Untuk Kedua Orang Tuaku Yang Selalu Mendukung*

*Serta Nasihatnya Yang Menjadi Jembatan Perjalanan Hidupku*

## MOTTO

### *Man Jadda Wa Jadda*

*"Barang Siapa yang Bersungguh-sungguh akan mendapatkannya."*

\*\*\*

*"Kecerdasan bukanlah tolak ukur kesuksesan, tetapi dengan menjadi cerdas kita  
bisa menggapai kesuksesan."*

\*\*\*

**"Do not put off doing a job because nobody knows whether we can meet  
tomorrow or not."**

*"Jangan menunda-nunda untuk melakukan suatu pekerjaan karena tidak ada  
yang tahu apakah kita dapat bertemu hari esok atau tidak."*

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## DAFTAR LAMBANG

■	: akhir suatu bukti
$f(x)$	: fungsi kepadatan probabilitas (pdf)
$\int$	: integral
$P(A)$	: probabilitas kejadian dari A
$P(A \cup B)$	: probabilitas kejadian dari A atau B
$P(A \cap B)$	: probabilitas kejadian dari A dan B
$P(A B)$	: probabilitas kejadian dari A diberikan ke B
$\sim$	: berdistribusi
$\Omega$	: omega
$\infty$	: tak terhingga
$iid$	
$\sim$	: berdistribusi random
$\doteq$	: didefinisikan
$\Psi$	: psi
$\propto$	: sebanding
$\sim, \Sigma$	: hyperparameters dari prior yang normal
$I_{\{s\}}$	: fungsi indikator
$\Sigma \Lambda$	: matriks diagonal dari varians bersyarat
$l_t^* v_t^*$	: transformasi rekursif

$y_t$	: variabel dependen pada waktu ke-t
$h_t$	: varians bersyarat pada waktu ke-t
$v_t$	: model inovasi pada waktu ke-t
$J$	: jumlah menarik pada posterior
$c_t$	: vektor transformasi rekursif
$\min\{\bullet\}$	: nilai minimum
$\Sigma$	: operator penjumlahan
$\Pi$	: operator perkalian
$r_0 r_1 (r_2)$	: parameter ARCH
$r$	: vektor dari parameter ARCH
$s$	: parameter GARCH
$\nabla$	: gradien
$\simeq$	: ekuivalensi
$\times$	: operator perkalian atau produk Cartesian
$\{\bullet\}$	: koleksi dari elemen
$L(\bullet   y)$	: marjinal fungsi <i>likelihood</i>
$p(\bullet   y)$	: densitas posterior
$\tilde{\bullet}$	: menggambarkan sebelum sampel
$\bullet^{[j]}$	: menggambarkan sampel $j$
$\bullet^*$	: menggambarkan sampel baru

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**Oleh:  
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**ABSTRAK**

Seiring dengan perkembangan ekonomi Islam secara global, indeks syari'ah merupakan alternatif investasi khususnya bagi kaum muslim yang ingin berinvestasi secara syari'ah. Salah satu saham dengan prinsip syari'ah yaitu *Jakarta Islamic Index (JII)*. Kegiatan dalam berinvestasi perlu memperhatikan besar resiko yang akan diperoleh pada waktu yang akan datang, maka penelitian ini dilakukan dengan tujuan untuk menganalisis dan mengetahui besar resiko untuk indeks harga saham harian *Jakarta Islamic Index (JII)*.

Metode yang digunakan dalam penelitian ini yaitu metode Bayesian. Metode Bayesian adalah metode analisis yang didasarkan pada informasi sampel (*sampel informasi*) dan informasi prior (*prior information*). Metode ini akan di estimasi ke dalam model GARCH yang dapat digunakan investor dalam memilih periode yang tepat saat ingin berinvestasi dan menjual saham. Karakteristik model GARCH dilihat dari nilai volatilitas (tingkat perubahan dalam harga saham). Adapun data yang digunakan adalah data indeks penutupan harian saham syari'ah *Jakarta Islamic Index (JII)* pada periode 1 Januari 2014 sampai 31 Maret 2016 dan *software* yang digunakan adalah Microsoft Excel 2007, E-Views 5.1, dan Minitab 15. Langkah-langkah dalam penelitian ini adalah menghitung *return*, menguji stasioneritas, menguji normalitas, pemodelan *mean*, pengujian adanya efek ARCH, pemodelan variansi, menghitung VaR-GARCH (1,1) dan uji validasi.

Hasil penelitian ini menunjukkan bahwa model Bayesian GARCH (1,1) adalah model terbaik untuk menghitung resiko. Dimisalkan dana investasi awal Rp10.000.000,00 maka diperoleh model valid untuk meramalkan resiko 1 hari, 2 hari, dan 3 hari kedepan dengan besar resiko berturut-turut Rp275.465,00, Rp389.566,00, dan Rp477.119,00.

**Kata kunci:** Resiko, *Jakarta Islamic Index (JII)*, Bayesian, GARCH, Volatilitas dan *Value at Risk (VaR)*

# **BAB I**

## **PENDAHULUAN**

### **1.1 Latar Belakang**

Pentingnya peran investasi terhadap pertumbuhan ekonomi itulah yang membuat akses terhadap sumber pembiayaan yang murah amatlah penting. Akses terhadap sumber pembiayaan ini dapat terjadi secara langsung (melalui pasar modal) maupun secara tidak langsung (melalui Bank dan lembaga perantara keuangan lainnya). Akses permodalan secara langsung melalui pasar modal memberikan keuntungan berupa relatif rendahnya biaya bunga yang dikenakan kepada investor jika dibandingkan dengan akses permodalan secara tidak langsung.

Pada kasus permodalan langsung, investor mendapatkan dananya langsung dari pemilik dana, sedangkan pada kasus permodalan tidak langsung, investor mendapatkan dana dari perantara keuangan, yang mendapatkan dana dari pemilik dana. Perantara keuangan tentu mengenakan bunga yang lebih tinggi kepada investor. Sesuai dengan teori ekonomi, terjadi hubungan yang negatif antara suku bunga dan investasi. Jika suku bunga tinggi, maka akan mengurangi hasrat investor untuk berinvestasi sehingga pertumbuhan ekonomi tidak akan setinggi bila akses terhadap sumber pembiayaan murah (yang ditunjukkan dengan rendahnya suku bunga).

Pasar modal adalah pertemuan antara pihak yang memiliki kelebihan dana dengan pihak yang membutuhkan dana dengan cara memperjualbelikan

sekuritas atau surat berharga. Sekuritas memiliki berbagai macam bentuk yang secara garis besar dikelompokkan menjadi dua jenis yaitu surat kepemilikan (saham) dan surat hutang (obligasi). Menurut Darmidji dan Hendy (2001), saham adalah tanda bukti penyertaan atau kepemilikan seseorang atau suatu institusi dalam suatu badan usaha atau perusahaan. Dengan menerbitkan saham, memungkinkan perusahaan-perusahaan yang membutuhkan pendanaan jangka panjang untuk menjual kepentingan dalam bisnis saham dengan imbalan uang tunai. Indikator atau cerminan harga saham disebut indeks harga saham. Indeks harga saham merupakan salah satu pedoman bagi investor untuk melakukan investasi di pasar modal, khususnya saham.

Berkembangnya pasar modal yang telah mengembangkan pengertian mengenai pasar modal berbasis syari'ah. Pasar modal syari'ah merupakan pasar modal yang menerapkan prinsip-prinsip syari'ah dalam transaksi ekonomi. Pasar modal syari'ah menggunakan prinsip, prosedur, asumsi dan aplikasi bersumber dari epistemologi Islam. Di dunia internasional indeks saham syari'ah telah berkembang di negara bagian Timur Tengah maupun Barat. Seiring dengan perkembangan ekonomi Islam secara global, indeks syari'ah merupakan alternatif investasi yang aman khususnya bagi kaum muslim yang ingin berinvestasi secara syari'ah. Indonesia yang sebagian besar penduduknya muslim, memunculkan instrumen pasar modal yang menggunakan prinsip syari'ah, salah satunya dengan adanya *Jakarta Islamic Indeks* (JII) yang dikhususkan untuk perusahaan-perusahaan dengan prinsip syari'ah.

Salah satu indeks saham yang menunjukkan pergerakan harga saham yaitu *Jakarta Indeks Islamic (JII)*. *Jakarta Indeks Islamic (JII)* merupakan suatu rangkaian informasi historis mengenai pergerakan harga saham *Jakarta Indeks Islamic (JII)* yang mencerminkan suatu nilai yang berfungsi sebagai pengukur kinerja suatu saham. Saham *Jakarta Indeks Islamic (JII)* sebagai acuan investasi yang berbasis syari'ah guna melihat pergerakan harga saham syari'ah, sehingga untuk mengetahui kemungkinan kenaikan atau penurunan harga saham diperlukan suatu metode analisis.

*Return* saham merupakan ukuran yang dilihat oleh investor yang akan melakukan investasi pada suatu perusahaan. Menurut (Ang, 1997 dalam Adiliawan, 2010) konsep *return* (kembali) adalah tingkat keuntungan yang dinikmati oleh pemodal atas suatu investasi yang dilakukannya. *Return* saham merupakan *income* yang diperoleh oleh pemegang saham sebagai hasil dari investasinya di perusahaan tertentu. Sedangkan menurut Hartono (2007) *return* merupakan hasil yang diperoleh dari investasi atau tingkat keuntungan yang dinikmati oleh pemodal atas suatu investasi yang dilakukannya. Dengan demikian *return* saham merupakan tingkat hasil pengembalian yang akan diperoleh investor atas investasinya terhadap saham suatu perusahaan.

Model runtun waktu (*time series*) adalah pendugaan masa depan yang dilakukan berdasarkan nilai masa lalu dari suatu variabel atau kesalahan masa lalu. Langkah penting dalam memilih suatu metode runtun waktu (*time series*) yang tepat adalah dengan mempertimbangkan jenis pola data, sehingga metode yang paling tepat dengan pola tersebut dapat diuji. Pola data dapat dibedakan

menjadi empat jenis yaitu pola horizontal, pola musiman, pola siklik, dan pola trend. Nilai data berfluktuasi di sekitar nilai rata-rata yang konstan disebut pola horizontal. Sebagai contoh penjualan tiap bulan suatu produk tidak meningkat atau menurun secara konsisten pada suatu waktu dapat dipertimbangkan untuk pola horizontal. Suatu deret dipengaruhi oleh faktor musiman disebut pola musiman yang ditandai dengan adanya pola perubahan yang berulang secara otomatis dari tahun ke tahun. Data dipengaruhi oleh fluktuasi ekonomi jangka panjang seperti yang berhubungan dengan siklus bisnis yang dinamakan pola siklis. Terdapat kenaikan atau penurunan sekuler jangka panjang dalam data disebut pola trend (Makridakis, 1999:9-10).

Sebagian besar data runtun waktu ekonomi dan keuangan seperti pergerakan kurs valuta asing, harga saham, *Gross Domestic Product* (GDP), *Gross National Product* (GNP), inflasi dan sebagainya merupakan data runtun waktu yang tidak stasioner terhadap rata-rata dan ragam (heteroskedastisitas). Model umum runtun waktu *Autoregressive* (AR), *Moving Average* (MA) dan *Autoregressive Moving Average* (ARMA) sering digunakan untuk memodelkan data ekonomi dan keungan dengan asumsi stasioneritas terhadap ragam (homoskedastisitas). Oleh karena itu, dibutuhkan suatu model runtun waktu lain yang dapat memodelkan sebagian dasar data ekonomi dan keuangan dengan tetap mempertahankan heteroskedastisitas data.

Salah satu metode yang dapat digunakan untuk mengatasi masalah heteroskedastisitas adalah metode *Autoregressive Conditional Heteroskedasticity* (ARCH) yang diperkenalkan Engle pada tahun 1982. Dalam



perkembangan data runtun waktu, muncul variansi dari model ARCH, yang dikenal dengan nama GARCH (*Generalized Autoregressive Conditional Heteroscedasticity*). GARCH dimaksudkan untuk memperbaiki ARCH dan dikembangkan oleh Tim Bollerslev (1986 dan 1994) (Winarno, 2007:8, 1). Model GARCH merupakan model yang lebih sederhana dengan banyaknya parameter yang lebih sedikit dibandingkan model ARCH berderajat tinggi. Dalam analisis data runtun waktu ekonomi dan keuangan, yang menjadi pusat perhatian adalah fluktuasi harga yang menunjukkan naik turunnya harga. Model ARCH dan GARCH sangat berguna untuk mengevaluasi dan memproduksi fluktuasi harga.

Model GARCH dapat digunakan investor dalam memilih periode yang tepat saat ingin berinvestasi dan menjual saham. Karakteristik model GARCH dilihat dari nilai volatilitas (tingkat perubahan dalam harga saham), jika diprediksi nilai volatilitas tinggi maka menunjukkan tingkat resiko yang tinggi sehingga investor akan meninggalkan pasar atau menjual aset guna meminimalkan resiko. Bagi orang awam nilai volatilitas berguna untuk mengetahui dan memahami gambaran umum tentang resiko dalam berinvestasi saham sehingga dapat menjadi pertimbangan dalam pengambilan keputusan dan kebijakan para pemegang saham.

Salah satu metode yang dapat di estimasi ke dalam model GARCH yaitu metode Bayesian. Metode Bayesian adalah metode analisis yang didasarkan pada informasi sampel (*sampel information*) dan informasi prior (*prior information*). Informasi prior merupakan informasi terdahulu atau sebelumnya

mengenai distribusi dari parameter yang tidak diketahui. Informasi prior ini bersifat subjektif, tergantung pendapat ahli mengenai parameter tersebut. Keuntungan menggunakan analisis Bayesian dalam mengestimasi parameter yaitu analisis yang berlandaskan pada data observasi sehingga memberikan implikasi yang baik dalam analisis, dengan *noninformatif prior* akan memberikan kemudahan dalam analisis, dan tidak memerlukan *asymtotic inference* sehingga dapat digunakan untuk semua ukuran sampel (Berger, 1985).

Penelitian ini akan menggunakan model *Generalized Autoregressive Conditional Heteroscedasticity* (GARCH) yang di estimasi ke dalam metode Bayesian. Dari latar belakang di atas maka peneliti mengambil judul tentang **“Analisis Resiko Saham Syari’ah menggunakan Pendekatan Bayesian Generalized Autoregressive Conditional Heteroscedasticity (GARCH)”**.

## 1.2 Batasan Masalah

Pada penelitian ini terdapat beberapa batasan-batasan yang akan diteliti, batasan-batasan ini digunakan untuk mempermudah peneliti dalam melakukan suatu penelitian, yaitu:

1. Estimasi parameter yang digunakan yaitu menggunakan metode Bayesian.
2. Menggunakan bantuan *software* Microsoft Excel 2007, E-Views 7.1, dan Minitab 15.

### 1.3 Rumusan Masalah

Berdasarkan uraian di atas, maka masalah yang akan dikaji dalam penelitian ini adalah:

1. Bagaimana langkah-langkah analisis resiko saham syari'ah menggunakan Bayesian GARCH untuk data indeks harga saham syari'ah *Jakarta Islamic Indeks (JII)*?
2. Bagaimana bentuk model Bayesian GARCH untuk mengukur besar resiko investasi pada indeks harga saham syari'ah *Jakarta Islamic Indeks (JII)*?
3. Berapa besar resiko investasi pada indeks harga saham syari'ah *Jakarta Islamic Indeks (JII)* menggunakan metode Bayesian GARCH?

### 1.4 Tujuan Penelitian

Berdasarkan rumusan masalah di atas, maka tujuan dari skripsi ini adalah:

1. Mengetahui langkah-langkah analisis resiko saham syari'ah dengan menggunakan Bayesian GARCH.
2. Mengetahui bentuk model Bayesian GARCH untuk mengukur besar resiko investasi pada indeks harga saham syari'ah *Jakarta Islamic Indeks (JII)*.
3. Mengetahui besar resiko investasi pada indeks harga saham syari'ah *Jakarta Islamic Indeks (JII)*.

## 1.5 Manfaat Penelitian

1. Bagi Penulis
  - a. Menambah pengetahuan tentang aplikasi matematika khususnya statistika.
  - b. Menambah wawasan mengenai analisis resiko saham syari'ah menggunakan Bayesian GARCH.
2. Bagi Investor

Dapat memberikan informasi atau masukan kepada para investor yang akan berinvestasi dalam pengambilan keputusan, sehingga dapat meminimalis terjadinya resiko.

## 1.6 Tinjauan Pustaka

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

1. Penelitian Dian Harry Hanggara (2013) yang berjudul Analisis Resiko Investasi dengan *Value At Risk (VaR) – Generalized Autoregressive Conditional Heteroscedasticity (GARCH)*. Penelitian ini menggunakan model *Generalized Autoregressive Conditional Heteroscedasticity (GARCH)* dengan estimasi parameter menggunakan metode *Maximum Likelihood*. Data saham yang digunakan pada 3 Januari 2011 – 1 Juli 2013.

2. Penelitian Andreas Kurniawan (2013) yang berjudul Analisis Volatilitas Pasar Modal di Indonesia Penerapan Model GARCH pada *Return* Saham IHSB Harian 4 April 1983 – 15 Juli 2013. Penelitian ini memodelkan *return* pasar modal untuk penerapan model GARCH dengan saham IHSB harian periode 4 April 1983 – 15 Juli 2013.
3. Penelitian Fauzan Abdillah (2015) yang berjudul Estimasi Bayesian dari Peluang Kegagalan pada Portofolio dengan Kejadian Kegagalan yang Rendah. Pada penelitian ini menganalisis Bayesian dalam mengestimasi besarnya peluang gagal bayar (PD) dalam kasus portofolio dengan kejadian gagal bayar yang sangat rendah. Data yang digunakan pada tahun 1990 – 2010 dari perusahaan pemeringkat obligasi Moody's.

Pada penelitian yang sekarang memiliki persamaan dan perbedaan baik itu dari model yang akan digunakan maupun objek yang diteliti. Penelitian dari Dian Harry Hanggara, objek yang diteliti sebelumnya sama menggunakan saham JII dan model yang digunakan sama menggunakan model GARCH tetapi estimasi yang digunakan berbeda. Pada penelitian sebelumnya mengestimasi menggunakan metode *maximum likelihood* sedangkan pada penelitian sekarang mengestimasi menggunakan metode Bayesian. Penelitian dari Andreas Kurniawan, model yang digunakan sebelumnya sama menggunakan model GARCH tetapi objek yang digunakan berbeda. Pada penelitian sebelumnya menggunakan objek saham IHSB sedangkan penelitian yang sekarang menggunakan saham JII. Dan penelitian Fauzan Abdillah, metode yang

digunakan sama menggunakan metode Bayesian tetapi objek yang digunakan berbeda. Pada penelitian sebelumnya menggunakan data dari perusahaan pemeringkat obligasi Moody's sedangkan penelitian sekarang menggunakan saham JII.

**Tabel 1.1.** Tinjauan Pustaka

<b>No.</b>	<b>Nama Peneliti</b>	<b>Judul Penelitian</b>	<b>Model</b>	<b>Objek</b>
1.	Dian Harry Hanggara	Analisis Resiko Investasi dengan <i>Value At Risk (VaR) - Generalized Autoregressive Conditional Heteroscedasticity (GARCH)</i> .	<i>VaR – GARCH</i>	Saham <i>Jakarta Islamic index (JII)</i>
2.	Andreas Kurniawan	Analisis Volatilitas Pasar Modal di Indonesia Penerapan Model GARCH pada <i>Return Saham IHSG</i> Harian 4 April 1983 – 15 Juli 2013.	GARCH	Saham IHSG
3.	Fauzan Abdillah	Estimasi Bayesian dari Peluang Kegagalan pada Portofolio dengan Kejadian Kegagalan yang Rendah.	Bayesian	Perusahaan pemeringkat obligasi Moody's

## 1.7 Sistematika Penulisan

Untuk memberikan gambaran menyeluruh dan memudahkan dalam penelitian mengenai analisis resiko saham syari'ah dengan Bayesian GARCH, secara garis besar sistematika penulisannya yaitu:

### BAB I : PENDAHULUAN

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

### BAB II : LANDASAN TEORI

Berisi tentang teori penunjang yang digunakan dalam pembahasan analisis resiko saham syari'ah menggunakan Bayesian GARCH.

### BAB III : METODE PENELITIAN

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

### BAB IV : PEMBAHASAN

Berisi tentang pembahasan mengenai estimasi model GARCH menggunakan metode Bayesian.

### BAB V : STUDI KASUS

Berisi tentang penerapan dan aplikasi analisis resiko saham syari'ah menggunakan Bayesian GARCH pada data

indeks saham syari'ah JII dan memberikan interpretasi terhadap hasil yang diperoleh.

## BAB VI : PENUTUP

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





## BAB VI

### PENUTUP

#### 6.1 Kesimpulan

Berdasarkan pada permasalahan yang dikemukakan dalam penelitian ini, dapat diambil kesimpulan sebagai berikut:

1. Ada beberapa langkah-langkah dalam analisis resiko investasi dengan menggunakan VaR-GARCH yaitu menentukan nilai *return*, menguji kestasioneran data, menguji kenormalan data, menentukan model yang sesuai untuk persamaan *mean*, menguji ada tidaknya efek ARCH, menentukan model yang sesuai untuk persamaan variansi, menghitung nilai VaR-GARCH dan menguji validasi VaR-GARCH.
2. Berdasarkan simulasi join distribusi posterior, diperoleh model terbaik yaitu model GARCH (1,1) yang dapat ditulis sebagai ARMA (1,1). Jadi persamaan model GARCH (1,1) dengan estimasi Bayesian sebagai berikut:
  - a. Persamaan ARIMA (0,0,3):
$$Y_t = -0,109960e_{t-3}$$
  - b. Persamaan GARCH (1,1):
$$\sigma_t^2 = 0,000229 + 0,227579\sigma_{t-1}^2 - 0,227857\sigma_{t-1}^2$$
3. Pengukuran besar resiko investasi dengan menggunakan VaR – GARCH (1,1), dengan nilai investasi awal diasumsikan sebesar Rp10.000.000,00

menghasilkan besar nilai resiko untuk indeks harga saham harian JII dengan tingkat kepercayaan 95% sebagai berikut:

- a. Dalam periode waktu 1 hari kedepan sebesar Rp275.465,00
- b. Dalam periode waktu 2 hari kedepan sebesar Rp389.566,00
- c. Dalam periode waktu 3 hari kedepan sebesar Rp477.119,00
- d. Dalam periode waktu 4 hari kedepan sebesar Rp550.929,00

## 6.2 Saran

Berdasarkan pengalaman dan pertimbangan dalam studi literatur, saran-saran yang dapat disampaikan peneliti adalah:

1. Model yang didapat pada pembahasan penelitian ini, diharapkan dapat menjadi bahan pertimbangan bagi para investor.
2. Dengan adanya hasil penelitian ini, disarankan untuk para analis dan investor di pasar saham Indonesia untuk mengukur resiko harga dari saham dengan menggunakan *Value at Risk* agar dapat mengantisipasi lebih awal kerugian terburuk yang mungkin akan dialami.
3. Melanjutkan pembahasan tentang *Value at Risk* dengan metode lain seperti Bayesian Markov Switching ARCH, Bayesian Markov Switching GARCH, atau membandingkan dua metode dalam menentukan VaR.

Demikian saran dari peneliti semoga dapat menjadi masukan para peneliti pada bidang statistik khususnya analisis resiko investasi dengan VaR-GARCH, untuk melanjutkan dan mengembangkan penelitian ini.

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**LAMPIRAN 1: Data *return* indeks saham JII**

<b>No.</b>	<b>Date</b>	<b>Open</b>	<b>Close</b>	<b>Return</b>
1	1/2/2014	589.450012	596.150024	0
2	1/3/2014	589.72998	585.640015	-0.017787062
3	1/6/2014	588.109985	579.929993	-0.009797897
4	1/7/2014	580.219971	572.289978	-0.013261577
5	1/8/2014	573.869995	576.409973	0.007173349
6	1/9/2014	576.169983	574.280029	-0.003702033
7	1/10/2014	572.700012	582.380005	0.014006031
8	1/13/2014	589.549988	601.809998	0.032818613
9	1/15/2014	603.099976	609.900024	0.013353271
10	1/16/2014	612.869995	606.820007	-0.00506283
11	1/17/2014	605.47998	603.059998	-0.006215527
12	1/20/2014	608.320007	608.320007	0.00868438
13	1/21/2014	611.599976	609.109985	0.00129778
14	1/22/2014	607.330017	614.409973	0.008663563
15	1/23/2014	616.210022	614.969971	0.000911025
16	1/24/2014	610.780029	604.369995	-0.017386854
17	1/27/2014	589.780029	583.880005	-0.034491094
18	1/28/2014	582.859985	588.27002	0.007490569
19	1/29/2014	591.289978	601.539978	0.022306937
20	1/30/2014	592.880005	602.869995	0.002208579
21	2/3/2014	598.280029	595.619995	-0.012098705
22	2/4/2014	584.98999	587.48999	-0.013743664
23	2/5/2014	592.869995	594.5	0.011861509
24	2/6/2014	595.679993	601.059998	0.010974044
25	2/7/2014	604.049988	606.219971	0.008548149
26	2/10/2014	610.280029	603.330017	-0.00477857
27	2/11/2014	602.26001	604.700012	0.002268148
28	2/12/2014	607.719971	609.080017	0.007217163
29	2/13/2014	607.73999	607.219971	-0.003058534
30	2/14/2014	609.619995	608.969971	0.002877842
31	2/17/2014	611.849976	615.609985	0.010844664
32	2/18/2014	616.380005	615.099976	-0.000828805
33	2/19/2014	615.820007	621.72998	0.010721066
34	2/20/2014	619.530029	622.159973	0.000691368
35	2/21/2014	625.159973	626.969971	0.007701395
36	2/24/2014	627.5	621.940002	-0.008055018
37	2/25/2014	623.01001	614.47998	-0.012067279
38	2/26/2014	610.650024	606.030029	-0.013846811
39	2/27/2014	606.840027	612.840027	0.011174397
40	2/28/2014	615.570007	626.859985	0.022619272
41	3/3/2014	619.140015	618.97998	-0.012650277
42	3/4/2014	618.200012	620.049988	0.001727171
43	3/5/2014	624.02002	628	0.012740066
44	3/6/2014	629.440002	631	0.004765696

<b>No.</b>	<b>Date</b>	<b>Open</b>	<b>Close</b>	<b>Return</b>
45	3/7/2014	633.77002	631.73999	0.001172039
46	3/10/2014	626.809998	632.909973	0.001850288
47	3/11/2014	631.909973	635.349976	0.003847801
48	3/12/2014	630.099976	633.169983	-0.003437069
49	3/13/2014	635.179993	641.309998	0.012774035
50	3/14/2014	635.099976	661.73999	0.031359758
51	3/17/2014	665.130005	663.859985	0.003198547
52	3/18/2014	664.25	651.320007	-0.019070178
53	3/19/2014	653.840027	655.450012	0.006320957
54	3/20/2014	652.719971	634.169983	-0.03300501
55	3/21/2014	636.650024	636.549988	0.00374592
56	3/24/2014	638	637.789978	0.00194609
57	3/25/2014	633.659973	632.440002	-0.008423683
58	3/26/2014	632.590027	636.47998	0.006367607
59	3/27/2014	634.27002	635.02002	-0.002296438
60	3/28/2014	636.840027	640.409973	0.008452028
61	4/1/2014	645.359985	657.090027	0.025712482
62	4/2/2014	658.390015	655.27002	-0.002773642
63	4/3/2014	657	658.530029	0.004962727
64	4/4/2014	659.070007	653.27002	-0.008019572
65	4/7/2014	652.950012	667.219971	0.021129232
66	4/8/2014	666.369995	666.52002	-0.001049606
67	4/9/2014	666.369995	666.52002	0
68	4/10/2014	652.719971	643.150024	-0.035692161
69	4/11/2014	636.659973	653.280029	0.015627856
70	4/14/2014	652.679993	659.710022	0.009794506
71	4/15/2014	662	659.780029	0.000106112
72	4/16/2014	662.820007	657.859985	-0.00291437
73	4/17/2014	662.909973	663.590027	0.00867241
74	4/21/2014	666.929993	663.52002	-0.000105503
75	4/22/2014	664.25	664.130005	0.000918894
76	4/23/2014	663.950012	664.140015	1.50722E-05
77	4/24/2014	663.539978	663.179993	-0.001446557
78	4/25/2014	664.869995	663.210022	4.52793E-05
79	4/28/2014	661.099976	650.320007	-0.019627155
80	4/29/2014	646.01001	645.25	-0.007826722
81	4/30/2014	648.630005	647.669983	0.003743443
82	5/2/2014	646.049988	646.25	-0.002194855
83	5/5/2014	647.200012	648.25	0.003089999
84	5/6/2014	649.719971	647.039978	-0.001868342
85	5/7/2014	647.27002	651.72998	0.007222253
86	5/8/2014	654.380005	652.799988	0.00164045
87	5/9/2014	653.280029	655.950012	0.0048138
88	5/12/2014	658	662.469971	0.009890645
89	5/13/2014	666.659973	661.049988	-0.002145768
90	5/14/2014	664.450012	672.599976	0.017321302

<b>No.</b>	<b>Date</b>	<b>Open</b>	<b>Close</b>	<b>Return</b>
91	5/16/2014	671.159973	680.630005	0.011868084
92	5/19/2014	683.849976	678.080017	-0.003753547
93	5/20/2014	677.01001	660.080017	-0.026904235
94	5/21/2014	658.130005	664.780029	0.007095137
95	5/22/2014	668.669983	672.51001	0.011560794
96	5/23/2014	673.630005	672.109985	-0.000595001
97	5/26/2014	674.640015	671.820007	-0.000431537
98	5/28/2014	671.349976	673.960022	0.003180337
99	5/30/2014	676.409973	656.830017	-0.025745536
100	6/2/2014	655.780029	658.900024	0.003146555
101	6/3/2014	660.849976	662.609985	0.005614745
102	6/4/2014	661.380005	661.619995	-0.001495194
103	6/5/2014	662.090027	663.030029	0.002128916
104	6/6/2014	663.559998	666.400024	0.005069845
105	6/9/2014	668.289978	658.98999	-0.011181782
106	6/10/2014	660.599976	669.179993	0.015344727
107	6/11/2014	669.960022	672.98999	0.005677384
108	6/12/2014	670.77002	666.650024	-0.009465249
109	6/13/2014	665.109985	665.27002	-0.002072203
110	6/16/2014	664.659973	655.900024	-0.014184628
111	6/17/2014	656.929993	661.51001	0.008516741
112	6/18/2014	661.429993	658.049988	-0.005244218
113	6/19/2014	660.049988	654.359985	-0.005623262
114	6/20/2014	655.700012	652.969971	-0.002126494
115	6/23/2014	654.369995	653.440002	0.000719577
116	6/24/2014	654.859985	654.650024	0.00185006
117	6/25/2014	654.450012	651.630005	-0.004623854
118	6/26/2014	651.599976	656.690002	0.007735145
119	6/27/2014	656.02002	651.890015	-0.007336209
120	6/30/2014	652.51001	655	0.004759377
121	7/1/2014	655.619995	656.349976	0.002058911
122	7/2/2014	656.570007	663.859985	0.011377115
123	7/3/2014	663.390015	661.789978	-0.003123009
124	7/4/2014	660.349976	663.630005	0.002776521
125	7/7/2014	665.830017	679.409973	0.023499962
126	7/8/2014	682.789978	683.289978	0.0056946
127	7/10/2014	694.849976	692.849976	0.013894156
128	7/11/2014	687.679993	679.849976	-0.018941341
129	7/14/2014	681.409973	679.710022	-0.000205881
130	7/15/2014	682.309998	688.200012	0.012413242
131	7/16/2014	688.25	694.48999	0.009098238
132	7/17/2014	697.309998	685.929993	-0.012402177
133	7/18/2014	681.780029	689.789978	0.0056116
134	7/21/2014	694.119995	697.109985	0.010556024
135	7/22/2014	699.929993	692.330017	-0.006880451
136	7/23/2014	696.23999	692.140015	-0.000274476

<b>No.</b>	<b>Date</b>	<b>Open</b>	<b>Close</b>	<b>Return</b>
137	7/24/2014	696.210022	692.460022	0.000462237
138	7/25/2014	694.369995	690.400024	-0.002979332
139	8/4/2014	683.619995	701.22998	0.015564733
140	8/5/2014	702.169983	697.150024	-0.005835277
141	8/6/2014	693.799988	687.880005	-0.013386219
142	8/7/2014	687.200012	690.390015	0.003642266
143	8/8/2014	690.090027	686.72998	-0.005315504
144	8/11/2014	693.789978	697.349976	0.01534623
145	8/12/2014	700.130005	700.190002	0.004064327
146	8/13/2014	702.52002	707.380005	0.010216281
147	8/14/2014	706.880005	703.809998	-0.00505958
148	8/15/2014	703.630005	701.440002	-0.003373063
149	8/18/2014	702.619995	702.469971	0.001467287
150	8/19/2014	704.650024	701.369995	-0.001567096
151	8/20/2014	701.27002	706.219971	0.006891205
152	8/21/2014	705.27002	707.440002	0.00172606
153	8/22/2014	709.349976	704.210022	-0.004576185
154	8/25/2014	703.23999	701.090027	-0.004440333
155	8/26/2014	703.309998	696	-0.007286645
156	8/27/2014	695.679993	698.909973	0.00417228
157	8/28/2014	699.98999	701.52002	0.003727498
158	8/29/2014	699.51001	691.130005	-0.014921492
159	9/1/2014	693.75	699.5	0.012037848
160	9/2/2014	699.320007	703.049988	0.005062202
161	9/3/2014	703.609985	707.219971	0.005913754
162	9/4/2014	707.02002	702.22998	-0.007080793
163	9/5/2014	699.289978	702.849976	0.000882506
164	9/8/2014	706.169983	707.97998	0.007272353
165	9/9/2014	708.380005	698.210022	-0.013895868
166	9/10/2014	695.75	688.650024	-0.013786754
167	9/11/2014	689.869995	683.320007	-0.007769913
168	9/12/2014	686.210022	688.679993	0.00781343
169	9/15/2014	686.030029	691.599976	0.004231007
170	9/16/2014	694.340027	691	-0.000867895
171	9/17/2014	696.450012	699.090027	0.011639704
172	9/18/2014	701.359985	702.719971	0.00517895
173	9/19/2014	703.919983	704.710022	0.002827924
174	9/22/2014	702.659973	702.419983	-0.00325491
175	9/23/2014	699.130005	696.190002	-0.008908877
176	9/24/2014	697.630005	692.530029	-0.005271014
177	9/25/2014	697.549988	695	0.003560245
178	9/26/2014	685.359985	687.630005	-0.010660936
179	9/29/2014	685.840027	689.47998	0.002686751
180	9/30/2014	685.380005	687.619995	-0.002701309
181	10/1/2014	686.429993	682.390015	-0.007634989
182	10/2/2014	676.51001	661.700012	-0.030789065



<b>No.</b>	<b>Date</b>	<b>Open</b>	<b>Close</b>	<b>Return</b>
183	10/3/2014	664.51001	658.98999	-0.004103954
184	10/6/2014	665.049988	665.119995	0.009259123
185	10/7/2014	667.070007	671.01001	0.008816587
186	10/8/2014	662.840027	659.349976	-0.01752959
187	10/9/2014	665.049988	662.820007	0.005249006
188	10/10/2014	654.960022	655.98999	-0.010357941
189	10/13/2014	651.640015	647.23999	-0.013428377
190	10/14/2014	645.710022	650.340027	0.004778191
191	10/15/2014	654.320007	652.77002	0.003729533
192	10/16/2014	646.840027	651.97998	-0.001211021
193	10/17/2014	653.349976	663.570007	0.017620504
194	10/20/2014	670.179993	662.619995	-0.001432694
195	10/21/2014	667.309998	661.880005	-0.001117388
196	10/22/2014	667.109985	668.130005	0.009398495
197	10/23/2014	668.099976	671.070007	0.004390691
198	10/24/2014	669.809998	666.409973	-0.006968408
199	10/27/2014	668.280029	658.700012	-0.011636842
200	10/28/2014	658.049988	652.619995	-0.009273191
201	10/29/2014	656.23999	667.799988	0.022993687
202	10/30/2014	668.580017	666.809998	-0.001483565
203	10/31/2014	669.780029	670.440002	0.005429071
204	11/3/2014	672.890015	670.190002	-0.000372959
205	11/4/2014	669.460022	664.450012	-0.008601608
206	11/5/2014	665.880005	665.429993	0.001473789
207	11/6/2014	665.809998	662.140015	-0.004956401
208	11/7/2014	661.580017	654.02002	-0.012339074
209	11/10/2014	655.070007	649.650024	-0.006704169
210	11/11/2014	650.849976	661.679993	0.018348252
211	11/12/2014	664.73999	663.919983	0.00337959
212	11/13/2014	663.630005	665.700012	0.002677502
213	11/14/2014	666.070007	665.840027	0.000210305
214	11/17/2014	662.099976	668.51001	0.004001928
215	11/18/2014	672.059998	675.76001	0.010786628
216	11/19/2014	677.630005	678.640015	0.004252819
217	11/20/2014	678.090027	672.590027	-0.008954846
218	11/21/2014	671.900024	677.52002	0.00730313
219	11/24/2014	681.710022	686.48999	0.013152542
220	11/25/2014	684.169983	680.099976	-0.009351833
221	11/26/2014	681.190002	681.599976	0.002203129
222	11/27/2014	684.710022	684.710022	0.004552483
223	11/28/2014	682.719971	683.02002	-0.002471252
224	12/1/2014	682.369995	685.400024	0.003478473
225	12/2/2014	686.049988	685.919983	0.000758334
226	12/3/2014	687.719971	681.73999	-0.006112639
227	12/4/2014	686.690002	686.690002	0.007234617
228	12/5/2014	687.830017	688.280029	0.002312818

<b>No.</b>	<b>Date</b>	<b>Open</b>	<b>Close</b>	<b>Return</b>
229	12/8/2014	691.929993	680.77002	-0.010971234
230	12/9/2014	678.460022	678.710022	-0.00303057
231	12/10/2014	682.719971	682.719971	0.005890807
232	12/11/2014	678.929993	679.659973	-0.004492144
233	12/12/2014	679.669983	680.390015	0.001073552
234	12/15/2014	675.109985	674.280029	-0.009020687
235	12/16/2014	666.530029	663.390015	-0.016282423
236	12/17/2014	661.599976	661.599976	-0.002701968
237	12/18/2014	675.48999	675.48999	0.020777231
238	12/19/2014	681.049988	679.179993	0.005447839
239	12/29/2014	684.320007	685.840027	0.009758226
240	12/30/2014	685.570007	691.039978	0.007553274
241	12/31/2014	685.570007	691.039978	0
242	1/2/2015	693.369995	694.469971	0.004951246
243	1/5/2015	692.669983	689.090027	-0.007776997
244	1/6/2015	681.859985	681.070007	-0.011706825
245	1/7/2015	682.219971	687.51001	0.009411288
246	1/8/2015	689.98999	688.140015	0.000915938
247	1/9/2015	690.23999	688.950012	0.001176389
248	1/12/2015	687.460022	683.780029	-0.007532446
249	1/13/2015	686.950012	692.150024	0.012166459
250	1/14/2015	692.119995	681.659973	-0.01527177
251	1/15/2015	685.710022	687.570007	0.008632693
252	1/16/2015	686.900024	681.690002	-0.008588641
253	1/19/2015	682.890015	681.640015	-7.33307E-05
254	1/20/2015	682.950012	688.619995	0.010187906
255	1/21/2015	690.409973	702.099976	0.019386222
256	1/22/2015	701.01001	708.840027	0.009554059
257	1/23/2015	713.73999	716.72998	0.011069304
258	1/26/2015	714.640015	705.429993	-0.015891637
259	1/27/2015	704.140015	707.710022	0.0032269
260	1/28/2015	705.960022	706.090027	-0.00229169
261	1/29/2015	704.25	703.099976	-0.004243651
262	1/30/2015	708.159973	706.679993	0.005078842
263	2/2/2015	703.969971	701.5	-0.007357037
264	2/3/2015	703.369995	704.640015	0.004466156
265	2/4/2015	709.52002	708.719971	0.00577343
266	2/5/2015	706.710022	700.400024	-0.011808851
267	2/6/2015	702.880005	711.52002	0.01575192
268	2/9/2015	710.890015	710.890015	-0.000885828
269	2/10/2015	707.01001	707.01001	-0.005472903
270	2/11/2015	712.140015	712.140015	0.007229718
271	2/12/2015	713.97998	713.97998	0.00258038
272	2/13/2015	716.719971	721.530029	0.010519075
273	2/16/2015	709.599976	709.599976	-0.0166726
274	2/17/2015	714.340027	714.340027	0.00665768

<b>No.</b>	<b>Date</b>	<b>Open</b>	<b>Close</b>	<b>Return</b>
275	2/18/2015	719.109985	718.679993	0.006057109
276	2/19/2015	719.109985	718.679993	0
277	2/20/2015	717.320007	715.359985	-0.004630295
278	2/23/2015	718.390015	718.390015	0.004226726
279	2/24/2015	720.429993	720.429993	0.002835628
280	2/25/2015	727.440002	727.440002	0.009683278
281	2/26/2015	727.369995	727.369995	-9.62421E-05
282	2/27/2015	727.169983	722.099976	-0.007271682
283	3/2/2015	728.609985	728.609985	0.008974989
284	3/3/2015	730.200012	730.200012	0.002179897
285	3/4/2015	723.390015	723.390015	-0.009369969
286	3/5/2015	722.090027	722.090027	-0.001798694
287	3/6/2015	725.669983	734.849976	0.017516542
288	3/9/2015	729.049988	724.650024	-0.013977551
289	3/10/2015	722.840027	725.849976	0.001654536
290	3/11/2015	721.98999	720.530029	-0.007356256
291	3/12/2015	720.830017	723.77002	0.004486597
292	3/13/2015	727.549988	723.679993	-0.000124394
293	3/16/2015	722.469971	725.349976	0.002304968
294	3/17/2015	728.679993	724.679993	-0.000924095
295	3/18/2015	722.650024	718.320007	-0.008815006
296	3/19/2015	725.090027	724.859985	0.00906335
297	3/20/2015	722.01001	721.669983	-0.004410565
298	3/23/2015	723.789978	721	-0.00092881
299	3/24/2015	721.130005	721.5	0.000693241
300	3/25/2015	719.52002	711.030029	-0.014617714
301	3/26/2015	706.090027	703.47998	-0.010675245
302	3/27/2015	701.719971	709.97998	0.009197354
303	3/30/2015	714.51001	720.5	0.014708643
304	3/31/2015	729.47998	728.200012	0.010630337
305	4/1/2015	726.809998	718.590027	-0.013284756
306	4/2/2015	721.01001	716.799988	-0.002494151
307	4/6/2015	719.429993	720.869995	0.005661964
308	4/7/2015	723.799988	727.559998	0.009237658
309	4/8/2015	726.52002	719.98999	-0.010459158
310	4/9/2015	721.599976	723.849976	0.005346846
311	4/10/2015	724.440002	722.080017	-0.002448196
312	4/13/2015	719.200012	717.429993	-0.006460587
313	4/14/2015	717.109985	711.109985	-0.008848264
314	4/15/2015	712.609985	711.090027	-2.80664E-05
315	4/16/2015	712.140015	710.409973	-0.000956812
316	4/17/2015	709.340027	709.330017	-0.001521344
317	4/20/2015	709.47998	704.25	-0.00718748
318	4/21/2015	705.960022	717.97998	0.019308279
319	4/22/2015	716.98999	716.119995	-0.002593942
320	4/23/2015	717.02002	718.849976	0.003804936

<b>No.</b>	<b>Date</b>	<b>Open</b>	<b>Close</b>	<b>Return</b>
321	4/24/2015	722.679993	723.289978	0.006157538
322	4/27/2015	713.460022	698.23999	-0.035247349
323	4/28/2015	693.429993	701.080017	0.004059159
324	4/29/2015	698.109985	674.869995	-0.038101955
325	4/30/2015	670.609985	664.799988	-0.015033847
326	5/1/2015	670.609985	664.799988	0
327	5/4/2015	668.150024	679.159973	0.021370475
328	5/5/2015	681.419983	686.25	0.010385292
329	5/6/2015	680.52002	692.299988	0.008777378
330	5/7/2015	687.719971	685.969971	-0.009185518
331	5/8/2015	692.030029	696.700012	0.015521067
332	5/11/2015	701.030029	696.159973	-0.000775439
333	5/12/2015	696.72998	696.950012	0.001134209
334	5/13/2015	701.539978	706.030029	0.012944081
335	5/15/2015	707.340027	708.849976	0.003986134
336	5/18/2015	707.570007	708.51001	-0.000479717
337	5/19/2015	707.909973	711.75	0.004562539
338	5/20/2015	714.349976	714.799988	0.00427604
339	5/21/2015	717.320007	712.280029	-0.003531633
340	5/22/2015	712.630005	711.77002	-0.00071628
341	5/25/2015	712.780029	711.27002	-0.000702721
342	5/26/2015	712.51001	719.299988	0.011226368
343	5/27/2015	716.539978	707.77002	-0.01615929
344	5/28/2015	711.099976	707.159973	-0.0008623
345	5/29/2015	705.77002	698.070007	-0.012937516
346	6/1/2015	698.700012	700.650024	0.003689116
347	6/3/2015	698.429993	692.400024	-0.011844652
348	6/4/2015	690.159973	685.289978	-0.010321784
349	6/5/2015	683.5	684.75	-0.000788266
350	6/8/2015	681.840027	672.869995	-0.01750167
351	6/9/2015	672.539978	655.700012	-0.025848753
352	6/10/2015	659.200012	664.75	0.013707645
353	6/11/2015	672.630005	666.599976	0.0027791
354	6/12/2015	668.75	665.659973	-0.001411141
355	6/15/2015	663.799988	648.039978	-0.0268266
356	6/16/2015	649.940002	653.030029	0.007670726
357	6/17/2015	656.460022	660.820007	0.011858384
358	6/18/2015	661.070007	665.059998	0.00639576
359	6/19/2015	665.950012	666.820007	0.002642896
360	6/22/2015	667.859985	661.640015	-0.007798531
361	6/23/2015	663.109985	657.109985	-0.006870215
362	6/24/2015	662.409973	666.369995	0.013993655
363	6/25/2015	664.109985	659.789978	-0.009923495
364	6/26/2015	659.599976	658.849976	-0.001425715
365	6/29/2015	655	652.820007	-0.009194403
366	6/30/2015	652.950012	656.98999	0.006367331

<b>No.</b>	<b>Date</b>	<b>Open</b>	<b>Close</b>	<b>Return</b>
367	7/1/2015	660.059998	654.809998	-0.003323668
368	7/2/2015	657.820007	662.419983	0.011554656
369	7/3/2015	661.049988	670.929993	0.012765029
370	7/6/2015	664.109985	661.369995	-0.014351366
371	7/7/2015	661.590027	657.719971	-0.005534169
372	7/8/2015	661.299988	653.25	-0.00681936
373	7/9/2015	649.75	645.590027	-0.011795235
374	7/10/2015	650.130005	648.73999	0.004867335
375	7/13/2015	650.77002	654.820007	0.009328395
376	7/14/2015	658.590027	655.900024	0.001647975
377	7/15/2015	654.72998	653.650024	-0.003436298
378	7/22/2015	655.900024	658.390015	0.007225407
379	7/23/2015	655.780029	656.340027	-0.003118495
380	7/24/2015	653.070007	646.940002	-0.014425431
381	7/27/2015	642.049988	632.140015	-0.023142645
382	7/28/2015	629.969971	628.630005	-0.005568056
383	7/29/2015	632.179993	629.099976	0.000747332
384	7/30/2015	632.640015	628.900024	-0.000317889
385	7/31/2015	630.780029	641.969971	0.020569229
386	8/3/2015	636.429993	636.98999	-0.007787587
387	8/4/2015	632.210022	634.219971	-0.004358089
388	8/5/2015	636.109985	644.25	0.015690998
389	8/6/2015	644.880005	634.640015	-0.015028917
390	8/7/2015	635.340027	631.77002	-0.004532497
391	8/10/2015	630.940002	628.830017	-0.004664459
392	8/11/2015	630.710022	607.75	-0.034097364
393	8/12/2015	599.679993	585.320007	-0.037604895
394	8/13/2015	587.950012	605.299988	0.033565465
395	8/14/2015	604.390015	606.409973	0.001832097
396	8/18/2015	603.450012	597.190002	-0.015320956
397	8/19/2015	593.669983	592.130005	-0.00850911
398	8/20/2015	589.599976	587.98999	-0.00701629
399	8/21/2015	581.929993	572.01001	-0.027553433
400	8/24/2015	553.909973	544.390015	-0.049490562
401	8/25/2015	545.880005	554.869995	0.019067914
402	8/26/2015	547.77002	553.090027	-0.003213057
403	8/27/2015	562.159973	585.169983	0.056381589
404	8/28/2015	593.72998	586.090027	0.001571033
405	8/31/2015	588.150024	598.280029	0.020585513
406	9/1/2015	594.049988	584.099976	-0.02398676
407	9/2/2015	575.580017	582.659973	-0.00246838
408	9/3/2015	588.22998	590.890015	0.014026121
409	9/4/2015	589.530029	589.140015	-0.002966028
410	9/7/2015	584.789978	565.330017	-0.04125421
411	9/8/2015	560.869995	567.340027	0.003549157
412	9/9/2015	573.080017	574.98999	0.013393813

<b>No.</b>	<b>Date</b>	<b>Open</b>	<b>Close</b>	<b>Return</b>
413	9/10/2015	567.030029	577.059998	0.003593612
414	9/11/2015	581.859985	584.900024	0.01349469
415	9/14/2015	588.590027	591.679993	0.011525003
416	9/15/2015	588.47998	580.280029	-0.019455141
417	9/16/2015	583.880005	577.070007	-0.005547207
418	9/17/2015	579.75	584.429993	0.012673413
419	9/18/2015	585.299988	584.840027	0.00070135
420	9/21/2015	579.48999	583.280029	-0.002670956
421	9/22/2015	585.090027	576.159973	-0.012282042
422	9/23/2015	569.679993	561.530029	-0.0257201
423	9/25/2015	564.650024	557.22998	-0.007687208
424	9/28/2015	554.080017	542	-0.027712044
425	9/29/2015	532.580017	554.429993	0.022674545
426	9/30/2015	555.059998	556.090027	0.002989654
427	10/1/2015	556.849976	563.059998	0.012455991
428	10/2/2015	560.049988	553.869995	-0.016456198
429	10/5/2015	559.169983	576.340027	0.039767818
430	10/6/2015	584.73999	596.679993	0.034683133
431	10/7/2015	597.179993	602.549988	0.009789685
432	10/8/2015	604.97998	601.150024	-0.002326102
433	10/9/2015	610.940002	615.429993	0.023476672
434	10/12/2015	616.340027	619.080017	0.005913333
435	10/13/2015	617.570007	592.97998	-0.043073895
436	10/15/2015	598.97998	599.47998	0.010901942
437	10/16/2015	605.190002	602.01001	0.004211494
438	10/19/2015	604.659973	612.109985	0.016637907
439	10/20/2015	610.98999	612.840027	0.001191954
440	10/21/2015	615.429993	616.929993	0.006651619
441	10/22/2015	616.679993	611.340027	-0.009102241
442	10/23/2015	624.75	620.23999	0.01445317
443	10/26/2015	623.76001	623.609985	0.005418665
444	10/27/2015	619.080017	620.940002	-0.004290687
445	10/28/2015	617.130005	610.900024	-0.016301143
446	10/29/2015	610.369995	586.969971	-0.039959657
447	10/30/2015	586.289978	586.099976	-0.001483279
448	11/2/2015	584.450012	593.580017	0.012681645
449	11/3/2015	599.469971	599.469971	0.009873856
450	11/4/2015	610.469971	610.469971	0.018183222
451	11/5/2015	605.22998	605.22998	-0.008620587
452	11/6/2015	605.570007	603.789978	-0.002382099
453	11/9/2015	591.369995	591.369995	-0.020784548
454	11/10/2015	582.210022	582.210022	-0.015610625
455	11/11/2015	584.880005	584.880005	0.004575461
456	11/12/2015	582.47998	582.47998	-0.004111891
457	11/13/2015	578.52002	587.549988	0.008666513
458	11/16/2015	581.530029	581.530029	-0.010298717

<b>No.</b>	<b>Date</b>	<b>Open</b>	<b>Close</b>	<b>Return</b>
459	11/17/2015	589.299988	589.299988	0.01327276
460	11/18/2015	593.789978	593.789978	0.007590313
461	11/19/2015	596.859985	596.859985	0.00515687
462	11/20/2015	597.219971	604.539978	0.012785247
463	11/23/2015	595.599976	595.599976	-0.014898541
464	11/24/2015	594.880005	594.880005	-0.001209548
465	11/25/2015	599.280029	599.280029	0.00736927
466	11/26/2015	601.789978	601.789978	0.004179528
467	11/27/2015	602.710022	601.039978	-0.001247059
468	11/30/2015	579.799988	579.799988	-0.035978256
469	12/1/2015	598.030029	598.030029	0.030957773
470	12/2/2015	596.900024	596.900024	-0.001891333
471	12/3/2015	596.570007	596.570007	-0.000553038
472	12/4/2015	590.75	592.900024	-0.006170806
473	12/7/2015	595.719971	595.719971	0.004744918
474	12/8/2015	589.780029	582.210022	-0.022939464
475	12/10/2015	578.299988	578.299988	-0.006738501
476	12/11/2015	580.799988	565.090027	-0.023107686
477	12/14/2015	565.630005	565.630005	0.000955105
478	12/15/2015	573.179993	573.179993	0.013259628
479	12/16/2015	583.169983	583.169983	0.017278919
480	12/17/2015	600.52002	600.52002	0.02931727
481	12/18/2015	590.419983	588.219971	-0.020695002
482	12/21/2015	591.690002	591.690002	0.005881874
483	12/22/2015	595.599976	595.599976	0.006586408
484	12/23/2015	594.289978	593.25	-0.003953365
485	12/28/2015	597.280029	597.280029	0.006770168
486	12/29/2015	599.440002	599.440002	0.003609826
487	12/30/2015	600.929993	603.349976	0.00650153
488	1/4/2016	592.109985	592.109985	-0.018805017
489	1/5/2016	597.26001	597.26001	0.008660143
490	1/6/2016	612.219971	612.219971	0.024739101
491	1/7/2016	599.380005	599.380005	-0.021195852
492	1/8/2016	599.01001	600.47998	0.001833506
493	1/11/2016	586.710022	586.710022	-0.023198604
494	1/12/2016	596.039978	596.039978	0.015777044
495	1/13/2016	601.440002	601.859985	0.009717093
496	1/14/2016	592.960022	594.119995	-0.012943524
497	1/15/2016	596.609985	594.640015	0.000874895
498	1/18/2016	587.5	587.5	-0.01207996
499	1/19/2016	592.400024	592.400024	0.008305877
500	1/20/2016	582.799988	582.799988	-0.016338069
501	1/21/2016	581.780029	581.780029	-0.001751634
502	1/22/2016	589.940002	590.669983	0.015165038
503	1/25/2016	595.409973	595.409973	0.007992741
504	1/26/2016	594.950012	594.950012	-0.00077281

<b>No.</b>	<b>Date</b>	<b>Open</b>	<b>Close</b>	<b>Return</b>
505	1/27/2016	605.22998	605.22998	0.017131129
506	1/28/2016	607.75	607.75	0.004155095
507	1/29/2016	610.080017	612.75	0.008193409
508	2/1/2016	611.099976	611.099976	-0.00269645
509	2/2/2016	603.719971	603.719971	-0.012150106
510	2/3/2016	610.22998	610.22998	0.010725436
511	2/4/2016	621.97998	621.97998	0.019072003
512	2/5/2016	624.039978	642.549988	0.03253671
513	2/9/2016	636.130005	636.130005	-0.010041663
514	2/10/2016	634.169983	634.169983	-0.003085922
515	2/11/2016	643.97998	643.97998	0.015350608
516	2/12/2016	638.669983	630.48999	-0.02117036
517	2/15/2016	633.969971	633.969971	0.00550431
518	2/16/2016	635.289978	635.289978	0.002079964
519	2/17/2016	638.289978	638.289978	0.004711138
520	2/18/2016	641.419983	641.419983	0.004891751
521	2/19/2016	640.109985	631.059998	-0.0162835
522	2/22/2016	631.76001	631.76001	0.001108649
523	2/23/2016	623.530029	623.530029	-0.013112665
524	2/24/2016	620.820007	620.820007	-0.00435573
525	2/25/2016	623.52002	623.929993	0.004996975
526	2/26/2016	632.130005	636.619995	0.020134752
527	2/29/2016	641.859985	641.859985	0.008197265
528	3/1/2016	648.919983	648.919983	0.010939228
529	3/2/2016	660	660	0.016930419
530	3/3/2016	657.369995	657.369995	-0.003992817
531	3/4/2016	658.909973	654.52002	-0.004344845
532	3/7/2016	650.559998	650.559998	-0.006068646
533	3/8/2016	649.97998	648.359985	-0.003387453
534	3/10/2016	649.179993	649.179993	0.001263943
535	3/11/2016	648.169983	653.01001	0.005882441
536	3/14/2016	658.280029	665.469971	0.018901056
537	3/15/2016	664.960022	658.030029	-0.011242947
538	3/16/2016	658.039978	661.669983	0.005516349
539	3/17/2016	666.320007	668.140015	0.009730838
540	3/18/2016	670.48999	669.299988	0.001734617
541	3/21/2016	666.619995	668.26001	-0.001555038
542	3/22/2016	665.429993	664.190002	-0.006109078
543	3/23/2016	661.559998	656.98999	-0.010899474
544	3/24/2016	652.919983	653.179993	-0.005816051
545	3/28/2016	650.440002	646.070007	-0.010944864
546	3/29/2016	644.679993	645	-0.001657551
547	3/30/2016	649.150024	650.669983	0.008752258
548	3/31/2016	652.72998	652.690002	0.003099712



## LAMPIRAN 2: Uji stasioneritas ADF untuk data *return*

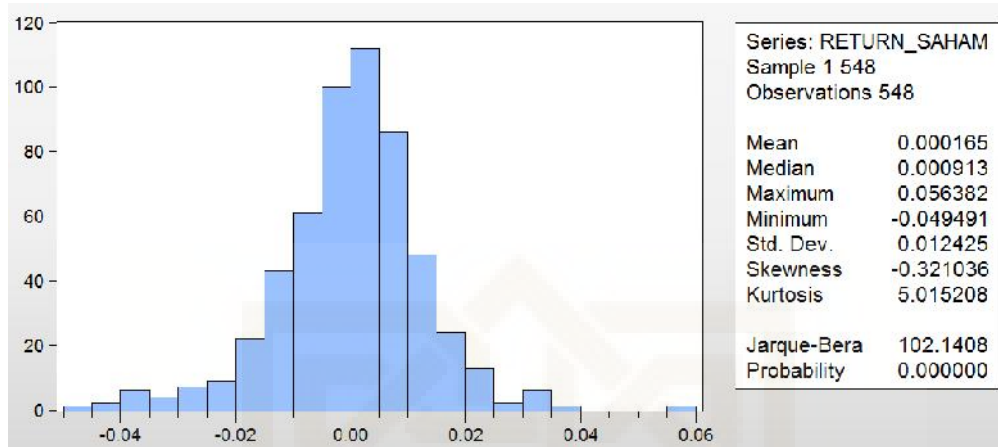
Null Hypothesis: RETURN\_SAHAM has a unit root  
 Exogenous: Constant  
 Lag Length: 0 (Automatic - based on SIC, maxlag=18)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-23.24173	0.0000
Test critical values:		
1% level	-3.442076	
5% level	-2.866605	
10% level	-2.569528	

\*Mackinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation  
 Dependent Variable: D(RETURN\_SAHAM)  
 Method: Least Squares  
 Date: 07/13/16 Time: 18:25  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RETURN_SAHAM(-1)	-0.995608	0.042837	-23.24173	0.0000
C	0.000165	0.000532	0.309906	0.7568
R-squared	0.497778	Mean dependent var		5.67E-06
Adjusted R-squared	0.496857	S.D. dependent var		0.017548
S.E. of regression	0.012447	Akaike info criterion		-5.930999
Sum squared resid	0.084438	Schwarz criterion		-5.915261
Log likelihood	1624.128	Hannan-Quinn criter.		-5.924847
F-statistic	540.1782	Durbin-Watson stat		1.995720
Prob(F-statistic)	0.000000			

**LAMPIRAN 3:** Pengujian normalitas Jarque-Bera untuk data *return*

## LAMPIRAN 4: Estimasi model ARIMA

### 1. Model ARIMA (1,0,0) Dengan Konstanta

Dependent Variable: RETURN\_SAHAM

Method: Least Squares

Date: 07/13/16 Time: 18:25

Sample (adjusted): 2 548

Included observations: 547 after adjustments

Convergence achieved after 2 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000166	0.000535	0.309931	0.7567
AR(1)	0.004392	0.042837	0.102537	0.9184
R-squared	0.000019	Mean dependent var		0.000166
Adjusted R-squared	-0.001816	S.D. dependent var		0.012436
S.E. of regression	0.012447	Akaike info criterion		-5.930999
Sum squared resid	0.084438	Schwarz criterion		-5.915261
Log likelihood	1624.128	Hannan-Quinn criter.		-5.924847
F-statistic	0.010514	Durbin-Watson stat		1.995720
Prob(F-statistic)	0.918368			
Inverted AR Roots	.00			

### 2. Model ARIMA (1,0,0) Tanpa Konstanta

Dependent Variable: RETURN\_SAHAM

Method: Least Squares

Date: 07/13/16 Time: 18:34

Sample (adjusted): 2 548

Included observations: 547 after adjustments

Convergence achieved after 2 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AR(1)	0.004563	0.042798	0.106624	0.9151
R-squared	-0.000157	Mean dependent var		0.000166
Adjusted R-squared	-0.000157	S.D. dependent var		0.012436
S.E. of regression	0.012437	Akaike info criterion		-5.934479
Sum squared resid	0.084453	Schwarz criterion		-5.926610
Log likelihood	1624.080	Hannan-Quinn criter.		-5.931403
Durbin-Watson stat	1.995693			
Inverted AR Roots	.00			

### 3. Model ARIMA (2,0,0) Dengan Konstanta

Dependent Variable: RETURN\_SAHAM  
 Method: Least Squares  
 Date: 07/13/16 Time: 18:26  
 Sample (adjusted): 3 548  
 Included observations: 546 after adjustments  
 Convergence achieved after 3 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000196	0.000506	0.386957	0.6989
AR(2)	-0.049522	0.042761	-1.158107	0.2473
R-squared	0.002459	Mean dependent var		0.000199
Adjusted R-squared	0.000626	S.D. dependent var		0.012423
S.E. of regression	0.012420	Akaike info criterion		-5.935430
Sum squared resid	0.083910	Schwarz criterion		-5.919670
Log likelihood	1622.373	Hannan-Quinn criter.		-5.929270
F-statistic	1.341211	Durbin-Watson stat		2.003353
Prob(F-statistic)	0.247329			

### 4. Model ARIMA (2,0,0) Tanpa Konstanta

Dependent Variable: RETURN\_SAHAM  
 Method: Least Squares  
 Date: 07/13/16 Time: 18:34  
 Sample (adjusted): 3 548  
 Included observations: 546 after adjustments  
 Convergence achieved after 3 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AR(2)	-0.049330	0.042725	-1.154595	0.2488
R-squared	0.002185	Mean dependent var		0.000199
Adjusted R-squared	0.002185	S.D. dependent var		0.012423
S.E. of regression	0.012410	Akaike info criterion		-5.938818
Sum squared resid	0.083933	Schwarz criterion		-5.930938
Log likelihood	1622.297	Hannan-Quinn criter.		-5.935738
Durbin-Watson stat	2.002767			

### 5. Model ARIMA (3,0,0) Dengan Konstanta

Dependent Variable: RETURN\_SAHAM  
 Method: Least Squares  
 Date: 07/13/16 Time: 18:26  
 Sample (adjusted): 4 548  
 Included observations: 545 after adjustments  
 Convergence achieved after 3 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000211	0.000484	0.435599	0.6633
AR(3)	-0.095930	0.042630	-2.250286	0.0248
R-squared	0.009239	Mean dependent var		0.000217
Adjusted R-squared	0.007415	S.D. dependent var		0.012427
S.E. of regression	0.012381	Akaike info criterion		-5.941595
Sum squared resid	0.083240	Schwarz criterion		-5.925812
Log likelihood	1621.085	Hannan-Quinn criter.		-5.935425
F-statistic	5.063786	Durbin-Watson stat		2.009272
Prob(F-statistic)	0.024830			
Inverted AR Roots	.23+.40i	.23-.40i		-.46

### 6. Model ARIMA (3,0,0) Tanpa Konstanta

Dependent Variable: RETURN\_SAHAM  
 Method: Least Squares  
 Date: 07/13/16 Time: 18:35  
 Sample (adjusted): 4 548  
 Included observations: 545 after adjustments  
 Convergence achieved after 3 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AR(3)	-0.095709	0.042595	-2.246952	0.0250
R-squared	0.008893	Mean dependent var		0.000217
Adjusted R-squared	0.008893	S.D. dependent var		0.012427
S.E. of regression	0.012372	Akaike info criterion		-5.944915
Sum squared resid	0.083269	Schwarz criterion		-5.937024
Log likelihood	1620.989	Hannan-Quinn criter.		-5.941830
Durbin-Watson stat	2.008541			
Inverted AR Roots	.23+.40i	.23-.40i		-.46

## 7. Model ARIMA (0,0,1) Dengan Konstanta

Dependent Variable: RETURN\_SAHAM  
 Method: Least Squares  
 Date: 07/13/16 Time: 18:27  
 Sample: 1 548  
 Included observations: 548  
 Convergence achieved after 6 iterations  
 MA Backcast: 0

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000165	0.000534	0.309795	0.7568
MA(1)	0.004867	0.042798	0.113729	0.9095
R-squared	0.000021	Mean dependent var		0.000165
Adjusted R-squared	-0.001810	S.D. dependent var		0.012425
S.E. of regression	0.012436	Akaike info criterion		-5.932841
Sum squared resid	0.084438	Schwarz criterion		-5.917125
Log likelihood	1627.598	Hannan-Quinn criter.		-5.926698
F-statistic	0.011678	Durbin-Watson stat		2.000373
Prob(F-statistic)	0.913984			
Inverted MA Roots	-.00			

## 8. Model ARIMA (0,0,1) Tanpa Konstanta

Dependent Variable: RETURN\_SAHAM  
 Method: Least Squares  
 Date: 07/13/16 Time: 18:35  
 Sample: 1 548  
 Included observations: 548  
 Convergence achieved after 6 iterations  
 MA Backcast: 0

Variable	Coefficient	Std. Error	t-Statistic	Prob.
MA(1)	0.005054	0.042759	0.118205	0.9059
R-squared	-0.000154	Mean dependent var		0.000165
Adjusted R-squared	-0.000154	S.D. dependent var		0.012425
S.E. of regression	0.012425	Akaike info criterion		-5.936315
Sum squared resid	0.084452	Schwarz criterion		-5.928457
Log likelihood	1627.550	Hannan-Quinn criter.		-5.933243
Durbin-Watson stat	2.000378			
Inverted MA Roots	-.01			

## 9. Model ARIMA (0,0,2) Dengan Konstanta

Dependent Variable: RETURN\_SAHAM  
 Method: Least Squares  
 Date: 07/13/16 Time: 18:28  
 Sample: 1 548  
 Included observations: 548  
 Convergence achieved after 6 iterations  
 MA Backcast: -1 0

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000166	0.000503	0.330585	0.7411
MA(2)	-0.052303	0.042752	-1.223402	0.2217
R-squared	0.002579	Mean dependent var		0.000165
Adjusted R-squared	0.000752	S.D. dependent var		0.012425
S.E. of regression	0.012420	Akaike info criterion		-5.935402
Sum squared resid	0.084222	Schwarz criterion		-5.919685
Log likelihood	1628.300	Hannan-Quinn criter.		-5.929259
F-statistic	1.411756	Durbin-Watson stat		2.001611
Prob(F-statistic)	0.235282			
Inverted MA Roots	.23	-.23		

## 10. Model ARIMA (0,0,2) Tanpa Konstanta

Dependent Variable: RETURN\_SAHAM  
 Method: Least Squares  
 Date: 07/13/16 Time: 18:36  
 Sample: 1 548  
 Included observations: 548  
 Convergence achieved after 6 iterations  
 MA Backcast: -1 0

Variable	Coefficient	Std. Error	t-Statistic	Prob.
MA(2)	-0.052051	0.042714	-1.218574	0.2235
R-squared	0.002379	Mean dependent var		0.000165
Adjusted R-squared	0.002379	S.D. dependent var		0.012425
S.E. of regression	0.012410	Akaike info criterion		-5.938851
Sum squared resid	0.084239	Schwarz criterion		-5.930993
Log likelihood	1628.245	Hannan-Quinn criter.		-5.935780
Durbin-Watson stat	2.001157			
Inverted MA Roots	.23	-.23		

## 11. Model ARIMA (0,0,3) Dengan Konstanta

Dependent Variable: RETURN\_SAHAM  
 Method: Least Squares  
 Date: 07/13/16 Time: 18:28  
 Sample: 1 548  
 Included observations: 548  
 Convergence achieved after 6 iterations  
 MA Backcast: -2 0

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000170	0.000470	0.362087	0.7174
MA(3)	-0.110349	0.042548	-2.593512	0.0098
R-squared	0.010574	Mean dependent var		0.000165
Adjusted R-squared	0.008762	S.D. dependent var		0.012425
S.E. of regression	0.012370	Akaike info criterion		-5.943450
Sum squared resid	0.083547	Schwarz criterion		-5.927733
Log likelihood	1630.505	Hannan-Quinn criter.		-5.937307
F-statistic	5.835111	Durbin-Watson stat		2.007312
Prob(F-statistic)	0.016037			
Inverted MA Roots	.48	-.24+.42i	-.24-.42i	

## 12. Model ARIMA (0,0,3) Tanpa Konstanta

Dependent Variable: RETURN\_SAHAM  
 Method: Least Squares  
 Date: 07/13/16 Time: 18:36  
 Sample: 1 548  
 Included observations: 548  
 Convergence achieved after 6 iterations  
 MA Backcast: -2 0

Variable	Coefficient	Std. Error	t-Statistic	Prob.
MA(3)	-0.109960	0.042512	-2.586595	0.0100
R-squared	0.010337	Mean dependent var		0.000165
Adjusted R-squared	0.010337	S.D. dependent var		0.012425
S.E. of regression	0.012360	Akaike info criterion		-5.946859
Sum squared resid	0.083567	Schwarz criterion		-5.939001
Log likelihood	1630.439	Hannan-Quinn criter.		-5.943788
Durbin-Watson stat	2.006767			
Inverted MA Roots	.48	-.24-.41i	-.24+.41i	



### 13. Model ARIMA (1,0,1) Dengan Konstanta

Dependent Variable: RETURN\_SAHAM  
 Method: Least Squares  
 Date: 07/13/16 Time: 18:29  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 21 iterations  
 MA Backcast: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000167	0.000531	0.315120	0.7528
AR(1)	-0.729282	0.601782	-1.211871	0.2261
MA(1)	0.726895	0.604867	1.201743	0.2300
R-squared	0.001825	Mean dependent var		0.000166
Adjusted R-squared	-0.001845	S.D. dependent var		0.012436
S.E. of regression	0.012447	Akaike info criterion		-5.929150
Sum squared resid	0.084285	Schwarz criterion		-5.905543
Log likelihood	1624.623	Hannan-Quinn criter.		-5.919923
F-statistic	0.497318	Durbin-Watson stat		1.983061
Prob(F-statistic)	0.608436			
Inverted AR Roots	-.73			
Inverted MA Roots	-.73			

### 14. Model ARIMA (1,0,1) Tanpa Konstanta

Dependent Variable: RETURN\_SAHAM  
 Method: Least Squares  
 Date: 07/13/16 Time: 18:37  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 11 iterations  
 MA Backcast: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AR(1)	-0.993415	0.004958	-200.3746	0.0000
MA(1)	0.996762	0.004418	225.5992	0.0000
R-squared	0.005078	Mean dependent var		0.000166
Adjusted R-squared	0.003253	S.D. dependent var		0.012436
S.E. of regression	0.012416	Akaike info criterion		-5.936071
Sum squared resid	0.084011	Schwarz criterion		-5.920333
Log likelihood	1625.515	Hannan-Quinn criter.		-5.929919
Durbin-Watson stat	1.984661			
Inverted AR Roots	-.99			
Inverted MA Roots	-1.00			

## 15. Model ARIMA (1,0,2) Dengan Konstanta

Dependent Variable: RETURN\_SAHAM  
 Method: Least Squares  
 Date: 07/13/16 Time: 18:29  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 6 iterations  
 MA Backcast: 0 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000167	0.000504	0.332438	0.7397
AR(1)	-0.000887	0.042877	-0.020678	0.9835
MA(2)	-0.052541	0.042831	-1.226707	0.2205
R-squared	0.002588	Mean dependent var		0.000166
Adjusted R-squared	-0.001079	S.D. dependent var		0.012436
S.E. of regression	0.012443	Akaike info criterion		-5.929915
Sum squared resid	0.084221	Schwarz criterion		-5.906307
Log likelihood	1624.832	Hannan-Quinn criter.		-5.920687
F-statistic	0.705665	Durbin-Watson stat		1.996179
Prob(F-statistic)	0.494232			
Inverted AR Roots	-.00			
Inverted MA Roots	.23	-.23		

## 16. Model ARIMA (1,0,2) Tanpa Konstanta

Dependent Variable: RETURN\_SAHAM  
 Method: Least Squares  
 Date: 07/13/16 Time: 18:37  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 7 iterations  
 MA Backcast: 0 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AR(1)	-0.000658	0.042838	-0.015355	0.9878
MA(2)	-0.052237	0.042793	-1.220689	0.2227
R-squared	0.002385	Mean dependent var		0.000166
Adjusted R-squared	0.000555	S.D. dependent var		0.012436
S.E. of regression	0.012432	Akaike info criterion		-5.933368
Sum squared resid	0.084238	Schwarz criterion		-5.917630
Log likelihood	1624.776	Hannan-Quinn criter.		-5.927216
Durbin-Watson stat	1.996164			
Inverted AR Roots	-.00			
Inverted MA Roots	.23	-.23		

## 17. Model ARIMA (1,0,3) Dengan Konstanta

Dependent Variable: RETURN\_SAHAM  
 Method: Least Squares  
 Date: 07/13/16 Time: 18:30  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 6 iterations  
 MA Backcast: -1 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000173	0.000470	0.368447	0.7127
AR(1)	-0.003753	0.042968	-0.087335	0.9304
MA(3)	-0.111091	0.042715	-2.600762	0.0096
R-squared	0.010634	Mean dependent var		0.000166
Adjusted R-squared	0.006997	S.D. dependent var		0.012436
S.E. of regression	0.012392	Akaike info criterion		-5.938015
Sum squared resid	0.083541	Schwarz criterion		-5.914407
Log likelihood	1627.047	Hannan-Quinn criter.		-5.928787
F-statistic	2.923645	Durbin-Watson stat		1.996658
Prob(F-statistic)	0.054582			
Inverted AR Roots	-.00			
Inverted MA Roots	.48	-.24-.42i		-.24+.42i

## 18. Model ARIMA (1,0,3) Tanpa Konstanta

Dependent Variable: RETURN\_SAHAM  
 Method: Least Squares  
 Date: 07/13/16 Time: 18:38  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 6 iterations  
 MA Backcast: -1 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AR(1)	-0.003475	0.042928	-0.080945	0.9355
MA(3)	-0.110633	0.042677	-2.592328	0.0098
R-squared	0.010388	Mean dependent var		0.000166
Adjusted R-squared	0.008572	S.D. dependent var		0.012436
S.E. of regression	0.012382	Akaike info criterion		-5.941422
Sum squared resid	0.083562	Schwarz criterion		-5.925684
Log likelihood	1626.979	Hannan-Quinn criter.		-5.935270
Durbin-Watson stat	1.996620			
Inverted AR Roots	-.00			
Inverted MA Roots	.48	-.24-.42i		-.24+.42i

## 19. Model ARIMA (2,0,1) Dengan Konstanta

Dependent Variable: RETURN\_SAHAM  
 Method: Least Squares  
 Date: 07/13/16 Time: 18:31  
 Sample (adjusted): 3 548  
 Included observations: 546 after adjustments  
 Convergence achieved after 6 iterations  
 MA Backcast: 2

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000196	0.000506	0.387633	0.6984
AR(2)	-0.049732	0.042801	-1.161937	0.2458
MA(1)	-0.002365	0.042918	-0.055109	0.9561
R-squared	0.002465	Mean dependent var		0.000199
Adjusted R-squared	-0.001209	S.D. dependent var		0.012423
S.E. of regression	0.012431	Akaike info criterion		-5.931773
Sum squared resid	0.083909	Schwarz criterion		-5.908132
Log likelihood	1622.374	Hannan-Quinn criter.		-5.922532
F-statistic	0.670866	Durbin-Watson stat		1.998680
Prob(F-statistic)	0.511689			
Inverted MA Roots	.00			

## 20. Model ARIMA (2,0,1) Tanpa Konstanta

Dependent Variable: RETURN\_SAHAM  
 Method: Least Squares  
 Date: 07/13/16 Time: 18:38  
 Sample (adjusted): 3 548  
 Included observations: 546 after adjustments  
 Convergence achieved after 6 iterations  
 MA Backcast: 2

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AR(2)	-0.049512	0.042765	-1.157770	0.2475
MA(1)	-0.002048	0.042879	-0.047757	0.9619
R-squared	0.002189	Mean dependent var		0.000199
Adjusted R-squared	0.000355	S.D. dependent var		0.012423
S.E. of regression	0.012421	Akaike info criterion		-5.935159
Sum squared resid	0.083932	Schwarz criterion		-5.919399
Log likelihood	1622.299	Hannan-Quinn criter.		-5.928998
Durbin-Watson stat	1.998720			
Inverted MA Roots	.00			

## 21. Model ARIMA (2,0,2) Dengan Konstanta

Dependent Variable: RETURN\_SAHAM  
 Method: Least Squares  
 Date: 07/13/16 Time: 18:31  
 Sample (adjusted): 3 548  
 Included observations: 546 after adjustments  
 Convergence achieved after 16 iterations  
 MA Backcast: 1 2

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000224	0.000484	0.462849	0.6437
AR(2)	0.350095	0.432596	0.809289	0.4187
MA(2)	-0.410548	0.422144	-0.972529	0.3312
R-squared	0.005145	Mean dependent var		0.000199
Adjusted R-squared	0.001481	S.D. dependent var		0.012423
S.E. of regression	0.012414	Akaike info criterion		-5.934463
Sum squared resid	0.083684	Schwarz criterion		-5.910823
Log likelihood	1623.108	Hannan-Quinn criter.		-5.925222
F-statistic	1.404097	Durbin-Watson stat		2.013239
Prob(F-statistic)	0.246479			
Inverted AR Roots	.59	-.59		
Inverted MA Roots	.64	-.64		

## 22. Model ARIMA (2,0,2) Tanpa Konstanta

Dependent Variable: RETURN\_SAHAM  
 Method: Least Squares  
 Date: 07/13/16 Time: 18:38  
 Sample (adjusted): 3 548  
 Included observations: 546 after adjustments  
 Convergence achieved after 16 iterations  
 MA Backcast: 1 2

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AR(2)	0.346102	0.438631	0.789051	0.4304
MA(2)	-0.406066	0.428261	-0.948174	0.3435
R-squared	0.004752	Mean dependent var		0.000199
Adjusted R-squared	0.002923	S.D. dependent var		0.012423
S.E. of regression	0.012405	Akaike info criterion		-5.937732
Sum squared resid	0.083717	Schwarz criterion		-5.921971
Log likelihood	1623.001	Hannan-Quinn criter.		-5.931571
Durbin-Watson stat	2.012243			
Inverted AR Roots	.59	-.59		
Inverted MA Roots	.64	-.64		

## 23. Model ARIMA (2,0,3) Dengan Konstanta

Dependent Variable: RETURN\_SAHAM  
 Method: Least Squares  
 Date: 07/13/16 Time: 18:32  
 Sample (adjusted): 3 548  
 Included observations: 546 after adjustments  
 Convergence achieved after 6 iterations  
 MA Backcast: 0 2

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000197	0.000444	0.444623	0.6568
AR(2)	-0.057997	0.042787	-1.355486	0.1758
MA(3)	-0.112760	0.042653	-2.643671	0.0084
R-squared	0.013479	Mean dependent var		0.000199
Adjusted R-squared	0.009845	S.D. dependent var		0.012423
S.E. of regression	0.012362	Akaike info criterion		-5.942876
Sum squared resid	0.082983	Schwarz criterion		-5.919235
Log likelihood	1625.405	Hannan-Quinn criter.		-5.933634
F-statistic	3.709515	Durbin-Watson stat		2.011046
Prob(F-statistic)	0.025112			
Inverted MA Roots	.48	-.24-.42i	-.24+.42i	

## 24. Model ARIMA (2,0,3) Tanpa Konstanta

Dependent Variable: RETURN\_SAHAM  
 Method: Least Squares  
 Date: 07/13/16 Time: 18:39  
 Sample (adjusted): 3 548  
 Included observations: 546 after adjustments  
 Convergence achieved after 6 iterations  
 MA Backcast: 0 2

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AR(2)	-0.057687	0.042751	-1.349366	0.1778
MA(3)	-0.112245	0.042616	-2.633843	0.0087
R-squared	0.013120	Mean dependent var		0.000199
Adjusted R-squared	0.011306	S.D. dependent var		0.012423
S.E. of regression	0.012353	Akaike info criterion		-5.946175
Sum squared resid	0.083013	Schwarz criterion		-5.930414
Log likelihood	1625.306	Hannan-Quinn criter.		-5.940014
Durbin-Watson stat	2.010274			
Inverted MA Roots	.48	-.24-.42i	-.24+.42i	

## 25. Model ARIMA (3,0,1) Dengan Konstanta

Dependent Variable: RETURN\_SAHAM  
 Method: Least Squares  
 Date: 07/13/16 Time: 18:32  
 Sample (adjusted): 4 548  
 Included observations: 545 after adjustments  
 Convergence achieved after 6 iterations  
 MA Backcast: 3

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000211	0.000481	0.438470	0.6612
AR(3)	-0.096362	0.042718	-2.255743	0.0245
MA(1)	-0.006577	0.043006	-0.152929	0.8785
R-squared	0.009277	Mean dependent var		0.000217
Adjusted R-squared	0.005621	S.D. dependent var		0.012427
S.E. of regression	0.012392	Akaike info criterion		-5.937963
Sum squared resid	0.083237	Schwarz criterion		-5.914289
Log likelihood	1621.095	Hannan-Quinn criter.		-5.928708
F-statistic	2.537573	Durbin-Watson stat		1.996944
Prob(F-statistic)	0.079997			
Inverted AR Roots	.23+.40i	.23-.40i	-.46	
Inverted MA Roots	.01			

## 26. Model ARIMA (3,0,1) Tanpa Konstanta

Dependent Variable: RETURN\_SAHAM  
 Method: Least Squares  
 Date: 07/13/16 Time: 18:39  
 Sample (adjusted): 4 548  
 Included observations: 545 after adjustments  
 Convergence achieved after 6 iterations  
 MA Backcast: 3

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AR(3)	-0.096108	0.042683	-2.251653	0.0247
MA(1)	-0.006115	0.042966	-0.142325	0.8869
R-squared	0.008926	Mean dependent var		0.000217
Adjusted R-squared	0.007100	S.D. dependent var		0.012427
S.E. of regression	0.012383	Akaike info criterion		-5.941278
Sum squared resid	0.083267	Schwarz criterion		-5.925495
Log likelihood	1620.998	Hannan-Quinn criter.		-5.935108
Durbin-Watson stat	1.997073			
Inverted AR Roots	.23-.40i	.23+.40i	-.46	
Inverted MA Roots	.01			

## 27. Model ARIMA (3,0,2) Dengan Konstanta

Dependent Variable: RETURN\_SAHAM  
 Method: Least Squares  
 Date: 07/13/16 Time: 18:33  
 Sample (adjusted): 4 548  
 Included observations: 545 after adjustments  
 Convergence achieved after 6 iterations  
 MA Backcast: 2 3

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000210	0.000452	0.465773	0.6416
AR(3)	-0.100163	0.042643	-2.348866	0.0192
MA(2)	-0.061933	0.042882	-1.444269	0.1492
R-squared	0.012810	Mean dependent var		0.000217
Adjusted R-squared	0.009168	S.D. dependent var		0.012427
S.E. of regression	0.012370	Akaike info criterion		-5.941536
Sum squared resid	0.082940	Schwarz criterion		-5.917862
Log likelihood	1622.068	Hannan-Quinn criter.		-5.932281
F-statistic	3.516660	Durbin-Watson stat		2.011440
Prob(F-statistic)	0.030378			
Inverted AR Roots	.23+.40i	.23-.40i		-.46
Inverted MA Roots	.25	-.25		

## 28. Model ARIMA (3,0,2) Tanpa Konstanta

Dependent Variable: RETURN\_SAHAM  
 Method: Least Squares  
 Date: 07/13/16 Time: 18:40  
 Sample (adjusted): 4 548  
 Included observations: 545 after adjustments  
 Convergence achieved after 6 iterations  
 MA Backcast: 2 3

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AR(3)	-0.099872	0.042609	-2.343921	0.0194
MA(2)	-0.061461	0.042844	-1.434524	0.1520
R-squared	0.012415	Mean dependent var		0.000217
Adjusted R-squared	0.010597	S.D. dependent var		0.012427
S.E. of regression	0.012361	Akaike info criterion		-5.944805
Sum squared resid	0.082973	Schwarz criterion		-5.929023
Log likelihood	1621.959	Hannan-Quinn criter.		-5.938635
Durbin-Watson stat	2.010610			
Inverted AR Roots	.23+.40i	.23-.40i		-.46
Inverted MA Roots	.25	-.25		



## 29. Model ARIMA (3,0,3) Dengan Konstanta

Dependent Variable: RETURN\_SAHAM  
 Method: Least Squares  
 Date: 07/13/16 Time: 18:33  
 Sample (adjusted): 4 548  
 Included observations: 545 after adjustments  
 Convergence achieved after 12 iterations  
 MA Backcast: 1 3

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000189	0.000427	0.443670	0.6575
AR(3)	0.495862	0.245497	2.019829	0.0439
MA(3)	-0.597579	0.225604	-2.648799	0.0083
R-squared	0.012341	Mean dependent var		0.000217
Adjusted R-squared	0.008697	S.D. dependent var		0.012427
S.E. of regression	0.012373	Akaike info criterion		-5.941061
Sum squared resid	0.082980	Schwarz criterion		-5.917386
Log likelihood	1621.939	Hannan-Quinn criter.		-5.931805
F-statistic	3.386253	Durbin-Watson stat		2.014484
Prob(F-statistic)	0.034553			
Inverted AR Roots	.79	-.40+.69i	-.40-.69i	
Inverted MA Roots	.84	-.42+.73i	-.42-.73i	

## 30. Model ARIMA (3,0,3) Tanpa Konstanta

Dependent Variable: RETURN\_SAHAM  
 Method: Least Squares  
 Date: 07/13/16 Time: 18:40  
 Sample (adjusted): 4 548  
 Included observations: 545 after adjustments  
 Convergence achieved after 11 iterations  
 MA Backcast: 1 3

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AR(3)	0.502379	0.242992	2.067474	0.0392
MA(3)	-0.602997	0.223060	-2.703293	0.0071
R-squared	0.011984	Mean dependent var		0.000217
Adjusted R-squared	0.010165	S.D. dependent var		0.012427
S.E. of regression	0.012364	Akaike info criterion		-5.944369
Sum squared resid	0.083010	Schwarz criterion		-5.928586
Log likelihood	1621.841	Hannan-Quinn criter.		-5.938199
Durbin-Watson stat	2.013610			
Inverted AR Roots	.79	-.40+.69i	-.40-.69i	
Inverted MA Roots	.84	-.42+.73i	-.42-.73i	

**LAMPIRAN 5: Uji ARCH-LM model ARIMA (0,0,3)**

## Heteroskedasticity Test: ARCH

F-statistic	9.601101	Prob. F(1,545)	0.0020
Obs*R-squared	9.469513	Prob. Chi-Square(1)	0.0021

## Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 07/13/16 Time: 21:42

Sample (adjusted): 2 548

Included observations: 547 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000133	1.42E-05	9.325341	0.0000
RESID^2(-1)	0.131573	0.042462	3.098564	0.0020
R-squared	0.017312	Mean dependent var		0.000153
Adjusted R-squared	0.015509	S.D. dependent var		0.000298
S.E. of regression	0.000296	Akaike info criterion		-13.40780
Sum squared resid	4.78E-05	Schwarz criterion		-13.39206
Log likelihood	3669.033	Hannan-Quinn criter.		-13.40165
F-statistic	9.601101	Durbin-Watson stat		2.011282
Prob(F-statistic)	0.002045			

**LAMPIRAN 6:** Data pembangkit dan data residual indeks saham JII

No.	Date	$Y_t$	$(Y_t)^2$	Iterasi 12	Residual
1	1/2/2014	1.57E-05	2.45E-10	0.017796545	0
2	1/3/2014	-0.017586238	3.09E-04	-0.006028785	0.000239944
3	1/6/2014	-0.0096766	9.36E-05	-0.004651916	0.001403673
4	1/7/2014	-0.013259854	1.76E-04	-0.000972008	0.004917669
5	1/8/2014	0.005239559	2.75E-05	0.012045928	0.017894596
6	1/9/2014	-0.004766076	2.27E-05	0.000369693	0.006617424
7	1/10/2014	0.012547972	1.57E-04	-0.018520463	-0.012269568
8	1/13/2014	0.033394757	1.12E-03	-0.00904055	-0.00342489
9	1/15/2014	0.012829191	1.65E-04	-0.012023288	-0.006720416
10	1/16/2014	-0.00368305	1.36E-05	0.007892357	0.012782663
11	1/17/2014	-0.002543427	6.47E-06	-0.02125792	-0.016105788
12	1/20/2014	0.010095083	1.02E-04	-0.000170362	0.004257614
13	1/21/2014	0.00089279	7.97E-07	0.016364642	0.020783478
14	1/22/2014	0.008383887	7.03E-05	0.008010847	0.012979369
15	1/23/2014	0.002021084	4.08E-06	-0.009035831	-0.003801733
16	1/24/2014	-0.017288682	2.99E-04	-0.022710703	-0.017787987
17	1/27/2014	-0.033569199	1.13E-03	-0.020557385	-0.016407171
18	1/28/2014	0.007712808	5.95E-05	-0.020397443	-0.016944436
19	1/29/2014	0.020405867	4.16E-04	-0.006177091	-0.003413608
20	1/30/2014	-0.001482703	2.20E-06	-0.003681244	-0.001124457
21	2/3/2014	-0.011250602	1.27E-04	-0.014510672	-0.01207556
22	2/4/2014	-0.011499827	1.32E-04	0.000623278	0.002571136
23	2/5/2014	0.01169847	1.37E-04	-0.005369368	-0.003395724
24	2/6/2014	0.009736923	9.48E-05	0.006201604	0.007998429
25	2/7/2014	0.007283624	5.31E-05	-0.005608422	-0.003596799
26	2/10/2014	-0.003492202	1.22E-05	0.003892839	0.005719441
27	2/11/2014	0.003338824	1.11E-05	0.004673686	0.006636964
28	2/12/2014	0.008018073	6.43E-05	-0.013358201	-0.011232304
29	2/13/2014	-0.003442538	1.19E-05	-0.001455232	0.000223368
30	2/14/2014	0.00324498	1.05E-05	0.006044427	0.00767945
31	2/17/2014	0.011726334	1.38E-04	0.019153898	0.020998936
32	2/18/2014	-0.001207348	1.46E-06	-0.004451919	-0.001954521
33	2/19/2014	0.011077885	1.23E-04	-0.011962601	-0.009612728
34	2/20/2014	0.0019808	3.92E-06	-0.011391537	-0.009442529
35	2/21/2014	0.007568635	5.73E-05	0.003928007	0.00549676
36	2/24/2014	-0.006836889	4.67E-05	-0.001923887	-0.000216427
37	2/25/2014	-0.011849469	1.40E-04	0.010063435	0.011711386
38	2/26/2014	-0.013014561	1.69E-04	-0.003254993	-0.001261248
39	2/27/2014	0.01042261	1.09E-04	-0.010610352	-0.008722036
40	2/28/2014	0.0213163	4.54E-04	0.008884735	0.010419394
41	3/3/2014	-0.014081363	1.98E-04	0.002772804	0.004613793
42	3/4/2014	0.002873245	8.26E-06	0.025866178	0.027805945
43	3/5/2014	0.015084015	2.28E-04	-0.009330727	-0.00651207
44	3/6/2014	0.003217304	1.04E-05	0.002111163	0.004616367

No.	Date	$Y_t$	$(Y_t)^2$	Iterasi 12	Residual
45	3/7/2014	0.001487982	2.21E-06	0.001150913	0.003730364
46	3/10/2014	0.003508932	1.23E-05	-0.006046498	-0.003425493
47	3/11/2014	0.004201577	1.77E-05	-0.000998283	0.001420904
48	3/12/2014	-0.00327345	1.07E-05	-0.00153764	0.000850993
49	3/13/2014	0.013159879	1.73E-04	0.015760249	0.018100199
50	3/14/2014	0.031821765	1.01E-03	-0.006404464	-0.003528459
51	3/17/2014	0.002838597	8.06E-06	-0.005380121	-0.002718864
52	3/18/2014	-0.017623113	3.11E-04	-0.011975816	-0.009493988
53	3/19/2014	0.009820091	9.64E-05	0.000798343	0.002878429
54	3/20/2014	-0.032692877	1.07E-03	0.022253791	0.024365147
55	3/21/2014	0.001808076	3.27E-06	0.005420027	0.008287633
56	3/24/2014	0.003025911	9.16E-06	0.002653835	0.005706326
57	3/25/2014	-0.012018604	1.44E-04	-0.004795994	-0.001652705
58	3/26/2014	0.006566424	4.31E-05	-0.008642446	-0.005660421
59	3/27/2014	-0.001963708	3.86E-06	-0.004898712	-0.002207414
60	3/28/2014	0.007130458	5.08E-05	0.028312067	0.030840107
61	4/1/2014	0.026434528	6.99E-04	0.009221441	0.012709107
62	4/2/2014	-0.002989572	8.94E-06	-0.015084259	-0.011285266
63	4/3/2014	0.005746795	3.30E-05	-0.019032803	-0.015744906
64	4/4/2014	-0.005112821	2.61E-05	-0.016199403	-0.013554372
65	4/7/2014	0.020800497	4.33E-04	-0.022076411	-0.019976391
66	4/8/2014	-0.000417686	1.74E-07	-0.008550269	-0.007192091
67	4/9/2014	-0.000562208	3.16E-07	-0.009714739	-0.008638866
68	4/10/2014	-0.03340493	1.12E-03	-0.015252564	-0.014497426
69	4/11/2014	0.015581927	2.43E-04	-0.004079418	-0.003831116
70	4/14/2014	0.009732685	9.47E-05	-0.000987817	-0.000867102
71	4/15/2014	-0.003567107	1.27E-05	0.013676195	0.013774221
72	4/16/2014	-0.001200975	1.44E-06	0.000967127	0.001538105
73	4/17/2014	0.00974262	9.49E-05	-0.015643975	-0.015031091
74	4/21/2014	-0.000497743	2.48E-07	0.017626688	0.017719973
75	4/22/2014	0.000786834	6.19E-07	0.008307219	0.009006977
76	4/23/2014	0.001086374	1.18E-06	0.015365782	0.016355082
77	4/24/2014	-0.001501289	2.25E-06	-0.013374555	-0.011858116
78	4/25/2014	0.0001318	1.74E-08	-0.018610794	-0.017540213
79	4/28/2014	-0.019507697	3.81E-04	0.015122254	0.015571477
80	4/29/2014	-0.007991804	6.39E-05	0.005310946	0.006280842
81	4/30/2014	0.003757936	1.41E-05	-0.01771109	-0.016553793
82	5/2/2014	-0.004339929	1.88E-05	-0.011332318	-0.010766257
83	5/5/2014	0.002211217	4.89E-06	0.000684906	0.000877232
84	5/6/2014	-0.001455118	2.12E-06	0.004982203	0.005208136
85	5/7/2014	0.006745033	4.55E-05	0.005209862	0.005614517
86	5/8/2014	0.001883596	3.55E-06	0.028332483	0.02892297
87	5/9/2014	0.004653795	2.17E-05	-0.010194661	-0.008637526
88	5/12/2014	0.010632331	1.13E-04	-0.003371107	-0.002152499
89	5/13/2014	-0.001938647	3.76E-06	-0.010419839	-0.009308051
90	5/14/2014	0.017833035	3.18E-04	0.028405785	0.029172892

No.	Date	$Y_t$	$(Y_t)^2$	Iterasi 12	Residual
91	5/16/2014	0.013037219	1.70E-04	0.017655125	0.01939078
92	5/19/2014	-0.003966721	1.57E-05	-0.005168051	-0.002830329
93	5/20/2014	-0.024943308	6.22E-04	0.013160561	0.015327078
94	5/21/2014	0.008528715	7.27E-05	-0.000483169	0.002132114
95	5/22/2014	0.011124612	1.24E-04	-0.014229242	-0.011627746
96	5/23/2014	-0.003337777	1.11E-05	0.002300092	0.0044233
97	5/26/2014	0.000506284	2.56E-07	-0.019866455	-0.017661366
98	5/28/2014	0.004403604	1.94E-05	0.000307849	0.001845438
99	5/30/2014	-0.026112559	6.82E-04	-0.017665506	-0.01611145
100	6/2/2014	0.003202226	1.03E-05	0.026029967	0.02699303
101	6/3/2014	0.006098967	3.72E-05	0.001600339	0.00345102
102	6/4/2014	-0.004366541	1.91E-05	-0.018866141	-0.016956337
103	6/5/2014	0.002481034	6.16E-06	0.007713179	0.008990253
104	6/6/2014	0.00574049	3.30E-05	-0.016449752	-0.014905098
105	6/9/2014	-0.011661929	1.36E-04	0.005786381	0.00678116
106	6/10/2014	0.015617542	2.44E-04	0.007482083	0.008680248
107	6/11/2014	0.00630861	3.98E-05	-0.001944252	-0.000486059
108	6/12/2014	-0.010747599	1.16E-04	0.01441691	1.58E-02
109	6/13/2014	-0.000354892	1.26E-07	-0.001962383	-6.98E-05
110	6/16/2014	-0.013490931	1.82E-04	-0.001037087	0.000794041
111	6/17/2014	0.007334931	5.38E-05	-0.003300721	-0.001499537
112	6/18/2014	-0.005283242	2.79E-05	0.015766685	0.017461524
113	6/19/2014	-0.00710673	5.05E-05	0.000495135	0.002728355
114	6/20/2014	-0.001319942	1.74E-06	-0.008961425	-0.006707683
115	6/23/2014	0.00013863	1.92E-08	0.002432865	0.004387481
116	6/24/2014	0.001068601	1.14E-06	-0.005731353	-0.003689818
117	6/25/2014	-0.004768995	2.27E-05	-0.011051276	-0.009199015
118	6/26/2014	0.007750389	6.01E-05	-0.003521364	-0.002037543
119	6/27/2014	-0.007218705	5.21E-05	-0.009238846	-0.00786779
120	6/30/2014	0.004234976	1.79E-05	0.004989971	0.00605541
121	7/1/2014	0.002911147	8.47E-06	-0.000290839	0.000950841
122	7/2/2014	0.010583343	1.12E-04	-0.00678537	-0.005546488
123	7/3/2014	-0.002657329	7.06E-06	-0.011275742	-0.010259131
124	7/4/2014	0.003096632	9.59E-06	0.013715869	0.014359185
125	7/7/2014	0.024663711	6.08E-04	-0.010048764	-0.008932937
126	7/8/2014	0.005402399	2.92E-05	-0.02509948	-0.024315807
127	7/10/2014	0.014234663	2.03E-04	0.021274374	0.021218343
128	7/11/2014	-0.01622931	2.63E-04	0.002052232	0.002726435
129	7/14/2014	0.000388169	1.51E-07	0.004831553	0.005583996
130	7/15/2014	0.013978491	1.95E-04	0.013548803	0.014473156
131	7/16/2014	0.007313657	5.35E-05	-0.014417548	-0.013027249
132	7/17/2014	-0.012359494	1.53E-04	0.00372125	0.004630856
133	7/18/2014	0.00714868	5.11E-05	0.007683447	0.008726927
134	7/21/2014	0.011360237	1.29E-04	-0.006671193	-0.005360374
135	7/22/2014	-0.008239506	6.79E-05	-0.018190109	-0.017097937
136	7/23/2014	0.000511596	2.62E-07	0.000929171	0.001414131

No.	Date	$Y_t$	$(Y_t)^2$	Iterasi 12	Residual
137	7/24/2014	0.001711413	2.93E-06	-0.010944789	-0.010418924
138	7/25/2014	-0.003885351	1.51E-05	0.009451787	0.009617145
139	8/4/2014	0.015620988	2.44E-04	-0.000951602	-0.000456275
140	8/5/2014	-0.005647089	3.19E-05	0.006268335	0.006740972
141	8/6/2014	-0.013813454	1.91E-04	-0.018438627	-0.017744609
142	8/7/2014	0.005359956	2.87E-05	-0.017849649	-0.01776994
143	8/8/2014	-0.00593646	3.52E-05	0.007181351	0.006668663
144	8/11/2014	0.013827297	1.91E-04	0.017533309	0.017276077
145	8/12/2014	0.00465371	2.17E-05	-0.015013912	-0.014666681
146	8/13/2014	0.009563506	9.15E-05	0.027311979	0.027161772
147	8/14/2014	-0.003539125	1.25E-05	0.010783519	0.011567893
148	8/15/2014	-0.002861339	8.19E-06	-0.003938767	-0.002781441
149	8/18/2014	0.002518894	6.34E-06	-0.012123743	-0.011092221
150	8/19/2014	-0.00195626	3.83E-06	0.00403013	0.00465965
151	8/20/2014	0.006576571	4.33E-05	-0.006419031	-0.005644282
152	8/21/2014	0.002003039	4.01E-06	-0.000325776	0.000240599
153	8/22/2014	-0.004791296	2.30E-05	0.012364078	0.012928681
154	8/25/2014	-0.003717171	1.38E-05	5.29074E-05	0.001044595
155	8/26/2014	-0.00706639	4.99E-05	-0.020725575	-0.019724252
156	8/27/2014	0.003645427	1.33E-05	0.02263967	0.022948393
157	8/28/2014	0.003318756	1.10E-05	-0.010113138	-0.009029234
158	8/29/2014	-0.015698515	2.46E-04	0.00942494	0.010174619
159	9/1/2014	0.012438701	1.55E-04	0.029933689	0.03101052
160	9/2/2014	0.005427134	2.95E-05	0.030939615	0.033035617
161	9/3/2014	0.004187539	1.75E-05	0.003854972	0.00700081
162	9/4/2014	-0.005713029	3.26E-05	-0.005891687	-0.002614764
163	9/5/2014	0.001479276	2.19E-06	-0.007887924	-0.00480973
164	9/8/2014	0.007732816	5.98E-05	-0.007896153	-0.005083501
165	9/9/2014	-0.014524075	2.11E-04	0.001741534	0.004289233
166	9/10/2014	-0.013624092	1.86E-04	-0.012729575	-0.010120259
167	9/11/2014	-0.00691961	4.79E-05	-0.012175826	-0.009994142
168	9/12/2014	0.006216357	3.86E-05	0.004430774	0.006204937
169	9/15/2014	0.002732897	7.47E-06	-0.003338693	-0.001409503
170	9/16/2014	-0.001628778	2.65E-06	-0.000439212	0.001381931
171	9/17/2014	0.012323257	1.52E-04	0.006331747	0.008143184
172	9/18/2014	0.00547946	3.00E-05	-0.005801244	-0.003770659
173	9/19/2014	0.002648823	7.02E-06	0.000119297	0.001958282
174	9/22/2014	-0.00189984	3.61E-06	0.006723647	0.008571742
175	9/23/2014	-0.008306353	6.90E-05	0.022023691	0.024104059
176	9/24/2014	-0.004979748	2.48E-05	-0.002502093	0.00032685
177	9/25/2014	0.003351338	1.12E-05	0.011967367	0.014713595
178	9/26/2014	-0.011574306	1.34E-04	0.025245221	0.028397997
179	9/29/2014	0.002139176	4.58E-06	-0.023971028	-0.019964311
180	9/30/2014	-0.002332795	5.44E-06	0.008129146	0.011323761
181	10/1/2014	-0.008907704	7.93E-05	-0.00157176	0.001898226
182	10/2/2014	-0.03055384	9.34E-04	-0.013943958	-0.010527342

No.	Date	$Y_t$	$(Y_t)^2$	Iterasi 12	Residual
183	10/3/2014	-0.004360469	1.90E-05	0.015059073	0.018004379
184	10/6/2014	0.008279628	6.86E-05	-0.009594588	-0.006138901
185	10/7/2014	0.005456875	2.98E-05	-0.016465778	-0.013334544
186	10/8/2014	-0.018009069	3.24E-04	0.005626235	0.008201867
187	10/9/2014	0.006159437	3.79E-05	-0.009851199	-0.007082759
188	10/10/2014	-0.009757901	9.52E-05	-0.009716285	-0.007278723
189	10/13/2014	-0.015408661	2.37E-04	-0.011044528	-0.008932203
190	10/14/2014	0.005455485	2.98E-05	-0.020594761	-0.018851499
191	10/15/2014	0.00265655	7.06E-06	-0.010888205	-0.009835547
192	10/16/2014	-0.002905363	8.44E-06	-0.002828555	-0.002136213
193	10/17/2014	0.018220391	3.32E-04	-0.008768118	-0.00816254
194	10/20/2014	-0.001140579	1.30E-06	0.023179958	0.023498328
195	10/21/2014	-0.001436863	2.06E-06	-0.002562718	-0.001450939
196	10/22/2014	0.011402016	1.30E-04	-0.014311867	-0.013279239
197	10/23/2014	0.004265273	1.82E-05	-0.003200839	-0.002644164
198	10/24/2014	-0.007126406	5.08E-05	0.008988811	0.009446584
199	10/27/2014	-0.010383072	1.08E-04	-0.008536063	-0.007764923
200	10/28/2014	-0.00880418	7.75E-05	-0.017735582	-0.017244348
201	10/29/2014	0.022210065	4.93E-04	0.025071199	0.024972546
202	10/30/2014	-0.002625292	6.89E-06	0.012057727	0.01281776
203	10/31/2014	0.00446096	1.99E-05	-0.025406072	-0.024229947
204	11/3/2014	0.002069268	4.28E-06	0.002079672	0.00240445
205	11/4/2014	-0.008890286	7.90E-05	0.009657871	0.010062958
206	11/5/2014	0.001964318	3.86E-06	0.007621775	0.008363012
207	11/6/2014	-0.004728863	2.24E-05	-0.005992814	-0.004985335
208	11/7/2014	-0.013316653	1.77E-04	0.010554301	0.01136705
209	11/10/2014	-0.006488172	4.21E-05	-0.012397896	-0.011220035
210	11/11/2014	0.017828264	3.18E-04	-0.007370135	-0.006604019
211	11/12/2014	0.001915286	3.67E-06	0.00642876	0.006954388
212	11/13/2014	0.00196406	3.86E-06	-0.00090445	-0.000152193
213	11/14/2014	0.002170708	4.71E-06	-0.023474023	-0.022743701
214	11/17/2014	0.004212534	1.77E-05	-0.014397514	-0.01445179
215	11/18/2014	0.011002597	1.21E-04	0.01868753	0.018157959
216	11/19/2014	0.004491511	2.02E-05	0.014942239	0.015057028
217	11/20/2014	-0.008491634	7.21E-05	-0.016917328	-0.016286856
218	11/21/2014	0.00851298	7.25E-05	0.005808156	0.005875938
219	11/24/2014	0.01364643	1.86E-04	-0.003706297	-0.003431363
220	11/25/2014	-0.010285576	1.06E-04	-0.021133561	-0.02097369
221	11/26/2014	0.00313922	9.85E-06	0.005534378	0.004990611
222	11/27/2014	0.00605305	3.66E-05	0.001890749	0.00154688
223	11/28/2014	-0.003602258	1.30E-05	0.007689187	0.007421428
224	12/1/2014	0.003823663	1.46E-05	-0.013743694	-0.013739635
225	12/2/2014	0.00142393	2.03E-06	0.004355025	0.003905694
226	12/3/2014	-0.006508745	4.24E-05	-0.021538522	-0.021828119
227	12/4/2014	0.007655068	5.86E-05	-0.004255981	-0.005261433
228	12/5/2014	0.002469394	6.10E-06	0.000734989	-0.000399918

No.	Date	$Y_t$	$(Y_t)^2$	Iterasi 12	Residual
229	12/8/2014	-0.011686938	1.37E-04	-0.015539055	-0.016634326
230	12/9/2014	-0.002188816	4.79E-06	-0.005574007	-0.007179749
231	12/10/2014	0.006162343	3.80E-05	-0.006734969	-0.008512747
232	12/11/2014	-0.005777244	3.34E-05	-0.002260244	-0.00424873
233	12/12/2014	0.000832869	6.94E-07	-0.008900561	-0.010947845
234	12/15/2014	-0.008343073	6.96E-05	-0.001264912	-0.003595209
235	12/16/2014	-0.016917691	2.86E-04	-0.013089901	-0.015444241
236	12/17/2014	-0.002610385	6.81E-06	-0.010217814	-0.012995742
237	12/18/2014	0.019859823	3.94E-04	0.005599197	0.002496127
238	12/19/2014	0.003587563	1.29E-05	-0.001825969	-0.004718585
239	12/29/2014	0.009471187	8.97E-05	-0.026848321	-0.029782104
240	12/30/2014	0.009737068	9.48E-05	-0.021923707	-0.025744146
241	12/31/2014	0.00039449	1.56E-07	0.008279598	0.003741826
242	1/2/2015	0.005992701	3.59E-05	0.030416731	0.026184685
243	1/5/2015	-0.006706305	4.50E-05	0.010471786	0.007292586
244	1/6/2015	-0.011663447	1.36E-04	0.012811969	0.010008138
245	1/7/2015	0.010070248	1.01E-04	-0.026652556	-0.029003157
246	1/8/2015	0.00017851	3.19E-08	0.006678944	0.003446396
247	1/9/2015	-0.000106128	1.13E-08	0.001632577	-0.001352605
248	1/12/2015	-0.006425118	4.13E-05	0.01687762	0.013968455
249	1/13/2015	0.012186088	1.49E-04	0.006402566	0.004084372
250	1/14/2015	-0.01528344	2.34E-04	-0.015150028	-0.017233184
251	1/15/2015	0.007926185	6.28E-05	-0.005791611	-0.008368862
252	1/16/2015	-0.007248654	5.25E-05	-0.00026282	-0.003016286
253	1/19/2015	-0.001753904	3.08E-06	0.0160219	0.013279639
254	1/20/2015	0.011059472	1.22E-04	0.006778697	0.004597943
255	1/21/2015	0.018589157	3.46E-04	0.01385501	0.011921556
256	1/22/2015	0.009361199	8.76E-05	-0.00123303	-0.00268085
257	1/23/2015	0.012285408	1.51E-04	-0.02120978	-0.02268345
258	1/26/2015	-0.013847566	1.92E-04	0.016355039	0.014180494
259	1/27/2015	0.004256261	1.81E-05	-0.014159993	-0.015763629
260	1/28/2015	-0.000940782	8.85E-07	-0.011047204	-0.013113044
261	1/29/2015	-0.005766335	3.33E-05	0.013205614	0.010784276
262	1/30/2015	0.005546862	3.08E-05	0.005057261	0.003101205
263	2/2/2015	-0.007460486	5.57E-05	-0.005435797	-0.007203463
264	2/3/2015	0.003832088	1.47E-05	0.017086588	0.015152086
265	2/4/2015	0.006383365	4.07E-05	-0.000551695	-0.001891349
266	2/5/2015	-0.012629209	1.59E-04	0.001549381	0.000206549
267	2/6/2015	0.016173298	2.62E-04	-0.005598712	-0.006873706
268	2/9/2015	-0.000183911	3.38E-08	0.015245335	0.013796389
269	2/10/2015	-0.006861616	4.71E-05	0.013919104	0.013001194
270	2/11/2015	0.00900814	8.11E-05	-0.005660844	-0.006094273
271	2/12/2015	0.002560157	6.55E-06	0.003054462	0.002442231
272	2/13/2015	0.009764569	9.53E-05	0.002366958	0.001871041
273	2/16/2015	-0.015682061	2.46E-04	0.009943992	0.009540775
274	2/17/2015	0.006939196	4.82E-05	-0.00437569	-0.004430446



No.	Date	$Y_t$	$(Y_t)^2$	Iterasi 12	Residual
275	2/18/2015	0.007130825	5.08E-05	0.001394673	0.001203309
276	2/19/2015	-0.001724406	2.97E-06	-0.003607056	-0.003739573
277	2/20/2015	-0.003867258	1.50E-05	-0.016567884	-0.01681078
278	2/23/2015	0.005010834	2.51E-05	-0.005235914	-0.006026835
279	2/24/2015	0.002646012	7.00E-06	0.029400455	0.028446261
280	2/25/2015	0.009258033	8.57E-05	-0.023641838	-0.023588244
281	2/26/2015	0.000454751	2.07E-07	0.004918772	0.004184309
282	2/27/2015	-0.006980726	4.87E-05	0.011158834	0.010604088
283	3/2/2015	0.009993006	9.99E-05	-0.00953167	-0.009696404
284	3/3/2015	0.002229902	4.97E-06	-0.013980758	-0.014455986
285	3/4/2015	-0.010137572	1.03E-04	-0.004192689	-0.005127752
286	3/5/2015	-0.000699859	4.90E-07	0.002638742	0.001576132
287	3/6/2015	0.017761743	3.15E-04	0.004973864	0.004014991
288	3/9/2015	-0.015092282	2.28E-04	0.003127526	0.002350966
289	3/10/2015	0.001577579	2.49E-06	-0.007508771	-0.008166011
290	3/11/2015	-0.005403168	2.92E-05	0.000330674	-0.000567087
291	3/12/2015	0.002827044	7.99E-06	0.008159098	0.007286534
292	3/13/2015	4.91E-05	2.41E-09	0.021055327	0.020472438
293	3/16/2015	0.001710834	2.93E-06	-0.002044753	-0.001903089
294	3/17/2015	-0.000613232	3.76E-07	-0.004589971	-0.004506783
295	3/18/2015	-0.008809609	7.76E-05	-0.02960424	-0.029665353
296	3/19/2015	0.009251474	8.56E-05	0.016620583	0.01557029
297	3/20/2015	-0.004477996	2.01E-05	0.00032884	-0.000145243
298	3/23/2015	-0.001897518	3.60E-06	-0.010308721	-0.010759054
299	3/24/2015	0.001710537	2.93E-06	0.014557739	0.013771586
300	3/25/2015	-0.015110116	2.28E-04	0.001677765	0.001397245
301	3/26/2015	-0.010883897	1.18E-04	-0.00355812	-0.003769936
302	3/27/2015	0.009385445	8.81E-05	0.003450093	0.003129812
303	3/30/2015	0.013047129	1.70E-04	-0.00017598	-0.000367531
304	3/31/2015	0.009433539	8.90E-05	-0.000972283	-0.001158067
305	4/1/2015	-0.012252729	1.50E-04	0.002205528	0.001998582
306	4/2/2015	-0.001059484	1.12E-06	-0.032478017	-0.032598663
307	4/6/2015	0.00669928	4.49E-05	0.028955738	0.027748988
308	4/7/2015	0.007890343	6.23E-05	-0.015540855	-0.015754021
309	4/8/2015	-0.010575659	1.12E-04	-0.017426088	-0.018152668
310	4/9/2015	0.006083501	3.70E-05	0.013476619	0.012174591
311	4/10/2015	-0.001580571	2.50E-06	-0.020322854	-0.021154099
312	4/13/2015	-0.007623491	5.81E-05	-0.012754015	-0.014258261
313	4/14/2015	-0.00817932	6.69E-05	-0.00058961	-0.002508871
314	4/15/2015	-0.000201867	4.08E-08	0.005019548	0.003097722
315	4/16/2015	-0.001795094	3.22E-06	-0.01075717	-0.012491992
316	4/17/2015	-0.002420745	5.86E-06	0.009778233	0.007696633
317	4/20/2015	-0.007209677	5.20E-05	0.00325547	0.001522214
318	4/21/2015	0.01911089	3.65E-04	0.006948678	0.005342193
319	4/22/2015	-0.002860128	8.18E-06	0.001900596	0.000545278
320	4/23/2015	0.003012157	9.07E-06	-0.001381517	-0.002657087

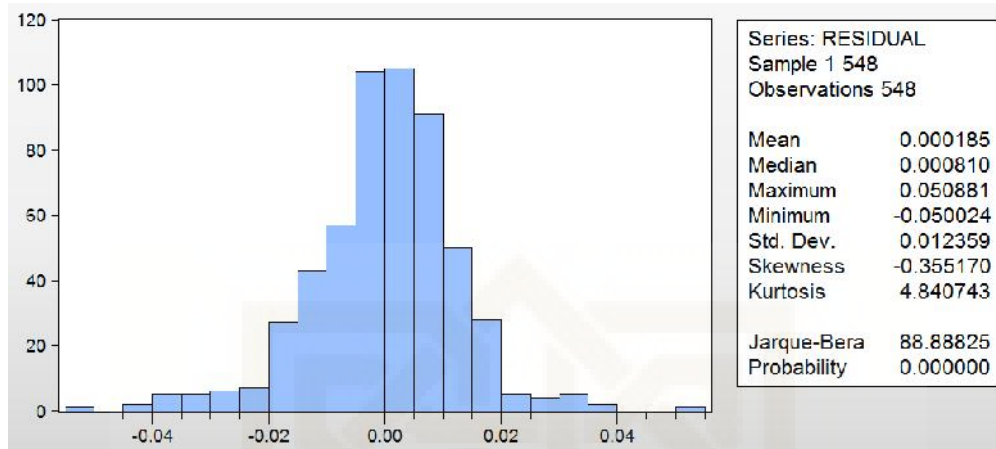
No.	Date	$Y_t$	$(Y_t)^2$	Iterasi 12	Residual
321	4/24/2015	0.008258979	6.82E-05	0.017833617	0.016526616
322	4/27/2015	-0.03556185	1.26E-03	-0.001622703	-0.002311661
323	4/28/2015	0.004390377	1.93E-05	-0.025159717	-0.025890174
324	4/29/2015	-0.037193794	1.38E-03	0.008198097	0.006630849
325	4/30/2015	-0.018944242	3.59E-04	0.002015447	0.000741462
326	5/1/2015	0.000482768	2.33E-07	0.002759785	0.001569163
327	5/4/2015	0.017280631	2.99E-04	0.003149328	0.002066952
328	5/5/2015	0.008302176	6.89E-05	0.015334671	0.014373352
329	5/6/2015	0.008830463	7.80E-05	0.004390979	0.003962121
330	5/7/2015	-0.007285333	5.31E-05	-0.012033961	-0.012301937
331	5/8/2015	0.016433977	2.70E-04	-0.00703815	-0.007700846
332	5/11/2015	0.000195562	3.82E-08	0.023694226	0.022806931
333	5/12/2015	0.000333111	1.11E-07	0.002055634	0.001983068
334	5/13/2015	0.014751168	2.18E-04	-0.010907784	-0.010899555
335	5/15/2015	0.004007638	1.61E-05	0.006761068	0.006411733
336	5/18/2015	-0.000443088	1.96E-07	0.006930011	0.006821395
337	5/19/2015	0.006184583	3.82E-05	0.00241814	0.002555165
338	5/20/2015	0.004716721	2.22E-05	-0.001459329	-0.001229943
339	5/21/2015	-0.003580355	1.28E-05	-0.027335002	-0.027144595
340	5/22/2015	-3.62E-05	1.31E-09	0.006436957	0.00571405
341	5/25/2015	-0.000184068	3.39E-08	-0.031396958	-0.031888879
342	5/26/2015	0.010832671	1.17E-04	0.012879757	0.01133948
343	5/27/2015	-0.016163273	2.61E-04	0.020092095	0.019003208
344	5/28/2015	-0.00088254	7.79E-07	0.000267045	-0.000128187
345	5/29/2015	-0.011746351	1.38E-04	-0.016154313	-0.01652814
346	6/1/2015	0.001911796	3.65E-06	-0.026688732	-0.027596181
347	6/3/2015	-0.011941696	1.43E-04	0.00514552	0.003350186
348	6/4/2015	-0.011613417	1.35E-04	-0.008692466	-0.010296953
349	6/5/2015	-0.000578044	3.34E-07	-0.000327801	-0.002209715
350	6/8/2015	-0.018814784	3.54E-04	0.002895104	0.00101935
351	6/9/2015	-0.027125769	7.36E-04	0.031409323	0.029648627
352	6/10/2015	0.013644083	1.86E-04	-0.016258482	-0.016940864
353	6/11/2015	0.000710219	5.04E-07	-0.002144166	-0.003362682
354	6/12/2015	-0.004393901	1.93E-05	-0.008137274	-0.009413181
355	6/15/2015	-0.025326291	6.41E-04	-0.004161448	-0.005697094
356	6/16/2015	0.007748822	6.00E-05	0.020133077	0.018472903
357	6/17/2015	0.011375229	1.29E-04	-0.009301334	-0.010264601
358	6/18/2015	0.003610871	1.30E-05	-0.006441239	-0.007704606
359	6/19/2015	0.003494959	1.22E-05	-0.002521968	-0.003987798
360	6/22/2015	-0.006547706	4.29E-05	-0.008858685	-0.010393865
361	6/23/2015	-0.006473162	4.19E-05	-0.004065574	-0.005884026
362	6/24/2015	0.014377962	2.07E-04	0.012549119	0.010610303
363	6/25/2015	-0.010643483	1.13E-04	0.028533823	0.027036526
364	6/26/2015	-0.002137506	4.57E-06	-0.01869307	-0.019210091
365	6/29/2015	-0.007613397	5.80E-05	0.00873826	0.007602289
366	6/30/2015	0.005196969	2.70E-05	0.003431234	0.002605371

No.	Date	$Y_t$	$(Y_t)^2$	Iterasi 12	Residual
367	7/1/2015	-0.003558709	1.27E-05	0.013779967	0.01308385
368	7/2/2015	0.010717484	1.15E-04	0.020744084	0.020527021
369	7/3/2015	0.01333649	1.78E-04	0.004973613	0.005469389
370	7/6/2015	-0.014742683	2.17E-04	-0.012221226	-0.0115479
371	7/7/2015	-0.00435567	1.90E-05	-0.00786831	-0.00759911
372	7/8/2015	-0.005352874	2.87E-05	0.010570819	0.01058432
373	7/9/2015	-0.013416346	1.80E-04	-0.008298345	-0.007916561
374	7/10/2015	0.004388384	1.93E-05	0.00567159	0.005782774
375	7/13/2015	0.008739791	7.64E-05	-0.002362573	-0.002048994
376	7/14/2015	0.000172708	2.98E-08	-0.019744544	-0.019500744
377	7/15/2015	-0.00295375	8.72E-06	-0.014400256	-0.014813427
378	7/22/2015	0.008186438	6.70E-05	0.003636656	0.002749271
379	7/23/2015	-0.003099504	9.61E-06	-0.006882097	-0.007632594
380	7/24/2015	-0.014750226	2.18E-04	-0.003473913	-0.004443448
381	7/27/2015	-0.022242461	4.95E-04	-0.005492862	-0.00656554
382	7/28/2015	-0.005908879	3.49E-05	0.010903862	0.009660148
383	7/29/2015	-0.000874609	7.65E-07	-0.012732776	-0.013592844
384	7/30/2015	-0.002763679	7.64E-06	-0.006647795	-0.007924265
385	7/31/2015	0.019919486	3.97E-04	-0.003076043	-0.004561913
386	8/3/2015	-0.007883759	6.22E-05	0.009485409	0.007911529
387	8/4/2015	-0.004661984	2.17E-05	0.012004467	0.010767376
388	8/5/2015	0.017881352	3.20E-04	-0.009885225	-0.010701496
389	8/6/2015	-0.015895818	2.53E-04	-0.007526228	-0.008662812
390	8/7/2015	-0.005045131	2.55E-05	-0.018349999	-0.019726127
391	8/10/2015	-0.002698219	7.28E-06	0.003506109	0.001525432
392	8/11/2015	-0.035845274	1.28E-03	-0.006941943	-0.00878657
393	8/12/2015	-0.03815966	1.46E-03	0.010606112	0.008544001
394	8/13/2015	0.033268768	1.11E-03	0.004275215	0.002589362
395	8/14/2015	-0.002109463	4.45E-06	-0.006290863	-0.007815638
396	8/18/2015	-0.019517007	3.81E-04	-0.000918057	-0.002639359
397	8/19/2015	-0.004850863	2.35E-05	-0.019429511	-0.021165124
398	8/20/2015	-0.007248247	5.25E-05	-0.011903963	-0.014279432
399	8/21/2015	-0.029699531	8.82E-04	0.022623996	0.019865088
400	8/24/2015	-0.050023965	2.50E-03	-0.010534301	-0.012508532
401	8/25/2015	0.018270894	3.34E-04	0.014373861	0.012061166
402	8/26/2015	-0.006478829	4.20E-05	-0.002433505	-0.004241792
403	8/27/2015	0.050880934	2.59E-03	0.01745352	0.015579991
404	8/28/2015	0.003580108	1.28E-05	0.002153573	0.000887093
405	8/31/2015	0.019873098	3.95E-04	0.027773517	0.026595044
406	9/1/2015	-0.018391873	3.38E-04	-0.004394677	-0.004619611
407	9/2/2015	-0.00207471	4.30E-06	0.014233561	0.013871934
408	9/3/2015	0.016211375	2.63E-04	0.007797999	0.007929662
409	9/4/2015	-0.004988405	2.49E-05	-0.022089789	-0.021683936
410	9/7/2015	-0.041482346	1.72E-03	0.001401533	0.001070628
411	9/8/2015	0.005331766	2.84E-05	0.002979065	0.002707695
412	9/9/2015	0.012845286	1.65E-04	0.028292024	0.028133306

No.	Date	$Y_t$	$(Y_t)^2$	Iterasi 12	Residual
413	9/10/2015	-0.000967803	9.37E-07	-0.001926897	-0.001117886
414	9/11/2015	0.014080973	1.98E-04	0.003992923	0.004745259
415	9/14/2015	0.012937476	1.67E-04	0.003781297	0.004677203
416	9/15/2015	-0.019561561	3.83E-04	-0.010578599	-0.009546745
417	9/16/2015	-0.003998858	1.60E-05	0.011042509	0.011724578
418	9/17/2015	0.014096023	1.99E-04	-0.009845873	-0.008781766
419	9/18/2015	-0.001449647	2.10E-06	-0.014571135	-0.013832156
420	9/21/2015	-0.003110672	9.68E-06	-0.011735401	-0.011480177
421	9/22/2015	-0.010732038	1.15E-04	-0.00354386	-0.003674977
422	9/23/2015	-0.025879504	6.70E-04	0.020455728	0.020216364
423	9/25/2015	-0.008029259	6.45E-05	0.004065431	0.004529235
424	9/28/2015	-0.028892143	8.35E-04	-0.006153114	-0.005542348
425	9/29/2015	0.019828825	3.93E-04	-0.02545447	-0.025042554
426	9/30/2015	0.002106754	4.44E-06	0.010738762	0.010300192
427	10/1/2015	0.009279	8.61E-05	0.032622313	0.032559179
428	10/2/2015	-0.014275813	2.04E-04	0.026486194	0.027536818
429	10/5/2015	0.039999477	1.60E-03	-0.004551859	-0.002598486
430	10/6/2015	0.035703455	1.27E-03	-0.018646802	-0.016842553
431	10/7/2015	0.008219911	6.76E-05	-0.007838561	-0.006659285
432	10/8/2015	0.002072256	4.29E-06	0.017810409	0.018732017
433	10/9/2015	0.027402638	7.51E-04	0.016142156	0.017673739
434	10/12/2015	0.006817198	4.65E-05	-0.001653366	0.00042982
435	10/13/2015	-0.042846029	1.84E-03	-0.003752932	-0.00172134
436	10/15/2015	0.013915147	1.94E-04	-0.006374093	-0.004464882
437	10/16/2015	0.004961116	2.46E-05	0.000640256	0.002338905
438	10/19/2015	0.011926541	1.42E-04	0.006005328	0.007731151
439	10/20/2015	0.002722069	7.41E-06	0.004553311	0.006487531
440	10/21/2015	0.007197145	5.18E-05	0.002731963	0.004824828
441	10/22/2015	-0.007790794	6.07E-05	0.012757862	0.014947301
442	10/23/2015	0.01475249	2.18E-04	0.004147911	0.006772432
443	10/26/2015	0.006210066	3.86E-05	0.007832672	0.010599882
444	10/27/2015	-0.005147366	2.65E-05	0.016935156	0.019969114
445	10/28/2015	-0.014678954	2.15E-04	-0.015506092	-0.011898641
446	10/29/2015	-0.039276796	1.54E-03	0.004776355	0.00785908
447	10/30/2015	-0.002049285	4.20E-06	0.008318963	0.011564117
448	11/2/2015	0.011067542	1.22E-04	0.002442669	0.005969443
449	11/3/2015	0.005554964	3.09E-05	-0.012161975	-0.008553089
450	11/4/2015	0.017957882	3.22E-04	-0.018079724	-0.014882555
451	11/5/2015	-0.007403596	5.48E-05	-0.020373632	-0.017786824
452	11/6/2015	-0.001771273	3.14E-06	-0.00936716	-0.007466239
453	11/9/2015	-0.018809892	3.54E-04	0.005251246	0.006840482
454	11/10/2015	-0.016424727	2.70E-04	-0.022958731	-0.021186136
455	11/11/2015	0.004380691	1.92E-05	-0.023062698	-0.022060693
456	11/12/2015	-0.006180234	3.82E-05	0.016403423	0.016633843
457	11/13/2015	0.006860444	4.71E-05	-0.000569787	0.000225318
458	11/16/2015	-0.009817015	9.64E-05	0.000510216	0.001294555

No.	Date	$Y_t$	$(Y_t)^2$	Iterasi 12	Residual
459	11/17/2015	0.012593179	1.59E-04	0.004917094	0.005727201
460	11/18/2015	0.008344469	6.96E-05	0.015663916	0.016648636
461	11/19/2015	0.004077387	1.66E-05	0.005836838	0.007358786
462	11/20/2015	0.014169998	2.01E-04	0.003104026	0.004829343
463	11/23/2015	-0.013980956	1.95E-04	-0.006320094	-0.004484427
464	11/24/2015	-0.000761197	5.79E-07	0.005919501	0.007546671
465	11/25/2015	0.008927408	7.97E-05	0.013719943	0.015552932
466	11/26/2015	0.002642177	6.98E-06	0.019535444	0.021837193
467	11/27/2015	-0.001330761	1.77E-06	-0.00074877	0.002216741
468	11/30/2015	-0.034996595	1.22E-03	-0.004062301	-0.001120698
469	12/1/2015	0.031248308	9.76E-04	0.004188835	0.006994628
470	12/2/2015	-0.002037664	4.15E-06	-0.002774737	0.000174535
471	12/3/2015	-0.004401277	1.94E-05	-0.01387277	-0.01101582
472	12/4/2015	-0.00273473	7.48E-06	0.012393628	0.014783503
473	12/7/2015	0.004520856	2.04E-05	-0.006256677	-0.003444684
474	12/8/2015	-0.02342343	5.49E-04	-0.007186535	-0.004584087
475	12/10/2015	-0.007039213	4.96E-05	-0.016384318	-0.014022154
476	12/11/2015	-0.022610571	5.11E-04	-0.012553044	-0.010741216
477	12/14/2015	-0.001620544	2.63E-06	0.005714885	0.007107653
478	12/15/2015	0.012485593	1.56E-04	-0.022689325	-0.021096887
479	12/16/2015	0.014792652	2.19E-04	0.01821511	0.019046651
480	12/17/2015	0.029139074	8.49E-04	0.015549286	0.017004774
481	12/18/2015	-0.019322081	3.73E-04	0.003347324	0.005334628
482	12/21/2015	0.00750848	5.64E-05	-0.012766872	-0.010661853
483	12/22/2015	0.009790552	9.59E-05	0.012884707	0.014562482
484	12/23/2015	-0.006078029	3.69E-05	0.021991547	0.024110363
485	12/28/2015	0.007595803	5.77E-05	-0.001826379	0.001039799
486	12/29/2015	0.004686399	2.20E-05	0.016765983	0.019572161
487	12/30/2015	0.005833188	3.40E-05	0.015090642	0.01846534
488	1/4/2016	-0.01796978	3.23E-04	-0.012326319	-0.008441577
489	1/5/2016	0.009175461	8.42E-05	0.007378212	0.010844781
490	1/6/2016	0.025380521	6.44E-04	-0.013732328	-1.00E-02
491	1/7/2016	-0.023171816	5.37E-04	-0.003316293	-6.58E-05
492	1/8/2016	0.002842443	8.08E-06	-0.015093854	-0.011954925
493	1/11/2016	-0.020407752	4.16E-04	0.002636862	0.005266528
494	1/12/2016	0.013229062	1.75E-04	-0.01442205	-0.011700778
495	1/13/2016	0.010029649	1.01E-04	-0.006600444	-0.004364367
496	1/14/2016	-0.015187568	2.31E-04	0.004737869	0.006754666
497	1/15/2016	0.002329568	5.43E-06	0.014918003	0.017099413
498	1/18/2016	-0.010977096	1.20E-04	-0.021163817	-0.018474298
499	1/19/2016	0.006635846	4.40E-05	0.019080783	0.021057375
500	1/20/2016	-0.016081909	2.59E-04	-0.012733028	-0.010106977
501	1/21/2016	-0.00295868	8.75E-06	-0.006477627	-0.00427938
502	1/22/2016	0.015894718	2.53E-04	0.015524082	0.017507323
503	1/25/2016	0.006224368	3.87E-05	-7.50777E-05	0.002437403
504	1/26/2016	-0.001098148	1.21E-06	-0.004146003	-0.001633182

No.	Date	$Y_t$	$(Y_t)^2$	Iterasi 12	Residual
505	1/27/2016	0.018878918	3.56E-04	0.020554888	0.022930472
506	1/28/2016	0.004839529	2.34E-05	-0.021245926	-0.01817237
507	1/29/2016	0.008072656	6.52E-05	0.003017696	0.005374295
508	2/1/2016	-0.000620517	3.85E-07	-0.003793399	-0.001331431
509	2/2/2016	-0.01161795	1.35E-04	0.003528556	0.005865369
510	2/3/2016	0.011613108	1.35E-04	-0.004140885	-0.001681374
511	2/4/2016	0.019003771	3.61E-04	0.004920972	0.007243593
512	2/5/2016	0.031259196	9.77E-04	-0.018042355	-0.015549933
513	2/9/2016	-0.008764681	7.68E-05	-0.002232212	-0.000346585
514	2/10/2016	-0.00099626	9.93E-07	-0.000744555	0.001070561
515	2/11/2016	0.018787881	3.53E-04	-0.012192003	-0.010396893
516	2/12/2016	-0.022134128	4.90E-04	-0.008569366	-0.00718106
517	2/15/2016	0.005394761	2.91E-05	-0.003279538	-0.00217428
518	2/16/2016	0.004145887	1.72E-05	-0.004178945	-0.003177042
519	2/17/2016	0.002277261	5.19E-06	0.001899509	0.002767999
520	2/18/2016	0.005484961	3.01E-05	-0.002906908	-0.001965974
521	2/19/2016	-0.015827617	2.51E-04	0.008673317	0.009524026
522	2/22/2016	0.001359057	1.85E-06	0.00364134	0.004793469
523	2/23/2016	-0.012509537	1.56E-04	0.003590633	0.004873144
524	2/24/2016	-0.006096141	3.72E-05	-0.001215332	0.00019542
525	2/25/2016	0.005146417	2.65E-05	-0.014522193	-0.013146035
526	2/26/2016	0.018759199	3.52E-04	0.019662358	0.020554333
527	2/29/2016	0.007526931	5.67E-05	-0.003041642	-0.001477009
528	3/1/2016	0.01150513	1.32E-04	-0.013636521	-0.012168705
529	3/2/2016	0.018993188	3.61E-04	-0.004134133	-0.003120868
530	3/3/2016	-0.003165153	1.00E-05	-0.011088786	-0.010207457
531	3/4/2016	-0.003079736	9.48E-06	-0.000296104	0.000218691
532	3/7/2016	-0.003980148	1.58E-05	-0.007867055	-0.007352861
533	3/8/2016	-0.003735494	1.40E-05	0.003530262	0.003787998
534	3/10/2016	0.000925294	8.56E-07	-0.009507673	-0.009120386
535	3/11/2016	0.005444782	2.96E-05	0.018642374	0.018718174
536	3/14/2016	0.0184903	3.42E-04	-0.001358217	-0.000641562
537	3/15/2016	-0.011141201	1.24E-04	-0.016363976	-0.015684475
538	3/16/2016	0.006115059	3.74E-05	0.01670862	0.016843972
539	3/17/2016	0.011764039	1.38E-04	0.004883008	0.00559367
540	3/18/2016	0.000509526	2.60E-07	0.02655596	0.027440407
541	3/21/2016	-0.000882624	7.79E-07	0.009260189	0.011050287
542	3/22/2016	-0.0048155	2.32E-05	-0.006514756	-0.004406474
543	3/23/2016	-0.010843446	1.18E-04	0.008135727	0.010028042
544	3/24/2016	-0.005913105	3.50E-05	0.001717659	0.003889823
545	3/28/2016	-0.011474378	1.32E-04	-0.028333089	-0.026098887
546	3/29/2016	-0.002849901	8.12E-06	-0.004361058	-0.00308058
547	3/30/2016	0.008102051	6.56E-05	-0.007107625	-0.005967624
548	3/31/2016	0.001837985	3.38E-06	-0.004173447	-0.003266284

**LAMPIRAN 7: Uji normalitas data residual ARIMA (0,0,3)**

## LAMPIRAN 8: Estimasi model GARCH

### 1. Iterasi 1 GARCH (1,1)

Dependent Variable: PEMBANGKIT1  
 Method: Least Squares  
 Date: 08/08/16 Time: 21:13  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 14 iterations  
 MA Backcast: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.001135	0.000517	2.196423	0.0285
AR(1)	0.537410	0.655472	0.819882	0.4126
MA(1)	-0.574840	0.635842	-0.904062	0.3664
R-squared	0.001921	Mean dependent var		0.001139
Adjusted R-squared	-0.001748	S.D. dependent var		0.013103
S.E. of regression	0.013114	Akaike info criterion		-5.824794
Sum squared resid	0.093556	Schwarz criterion		-5.801186
Log likelihood	1596.081	Hannan-Quinn criter.		-5.815566
F-statistic	0.523621	Durbin-Watson stat		1.953540
Prob(F-statistic)	0.592670			
Inverted AR Roots	.54			
Inverted MA Roots	.57			

### 2. Iterasi 2 GARCH (1,1)

Dependent Variable: PEMBANGKIT2  
 Method: Least Squares  
 Date: 08/08/16 Time: 21:14  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 9 iterations  
 MA Backcast: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.83E-05	0.000554	0.123449	0.9018
AR(1)	-0.345482	0.377833	-0.914378	0.3609
MA(1)	0.435706	0.362699	1.201289	0.2302
R-squared	0.009193	Mean dependent var		6.71E-05
Adjusted R-squared	0.005550	S.D. dependent var		0.012173
S.E. of regression	0.012139	Akaike info criterion		-5.979363
Sum squared resid	0.080158	Schwarz criterion		-5.955755
Log likelihood	1638.356	Hannan-Quinn criter.		-5.970135
F-statistic	2.523720	Durbin-Watson stat		1.982557
Prob(F-statistic)	0.081099			
Inverted AR Roots	-.35			
Inverted MA Roots	-.44			



## 3. Iterasi 3 GARCH (1,1)

Dependent Variable: PEMBANGKIT3  
 Method: Least Squares  
 Date: 08/08/16 Time: 21:15  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 10 iterations  
 MA Backcast: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000389	0.000471	0.825826	0.4093
AR(1)	0.180527	0.343680	0.525277	0.5996
MA(1)	-0.277050	0.336346	-0.823708	0.4105
R-squared	0.010383	Mean dependent var		0.000379
Adjusted R-squared	0.006745	S.D. dependent var		0.012509
S.E. of regression	0.012467	Akaike info criterion		-5.926051
Sum squared resid	0.084547	Schwarz criterion		-5.902443
Log likelihood	1623.775	Hannan-Quinn criter.		-5.916823
F-statistic	2.853819	Durbin-Watson stat		2.003894
Prob(F-statistic)	0.058487			
Inverted AR Roots	.18			
Inverted MA Roots	.28			

## 4. Iterasi 4 GARCH (1,1)

Dependent Variable: PEMBANGKIT4  
 Method: Least Squares  
 Date: 08/08/16 Time: 21:16  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 11 iterations  
 MA Backcast: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.38E-05	0.000604	0.039458	0.9685
AR(1)	0.048550	0.426115	0.113935	0.9093
MA(1)	0.047795	0.426440	0.112078	0.9108
R-squared	0.009285	Mean dependent var		1.88E-05
Adjusted R-squared	0.005643	S.D. dependent var		0.012860
S.E. of regression	0.012824	Akaike info criterion		-5.869543
Sum squared resid	0.089462	Schwarz criterion		-5.845935
Log likelihood	1608.320	Hannan-Quinn criter.		-5.860315
F-statistic	2.549156	Durbin-Watson stat		1.993757
Prob(F-statistic)	0.079081			
Inverted AR Roots	.05			
Inverted MA Roots	-.05			

## 5. Iterasi 5 GARCH (1,1)

Dependent Variable: PEMBANGKIT5  
 Method: Least Squares  
 Date: 08/08/16 Time: 21:16  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 15 iterations  
 MA Backcast: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000374	0.000553	0.676116	0.4993
AR(1)	-0.057891	0.847313	-0.068323	0.9456
MA(1)	0.100711	0.844810	0.119211	0.9052
R-squared	0.001772	Mean dependent var		0.000372
Adjusted R-squared	-0.001898	S.D. dependent var		0.012428
S.E. of regression	0.012439	Akaike info criterion		-5.930435
Sum squared resid	0.084177	Schwarz criterion		-5.906827
Log likelihood	1624.974	Hannan-Quinn criter.		-5.921207
F-statistic	0.482713	Durbin-Watson stat		2.001507
Prob(F-statistic)	0.617371			
Inverted AR Roots	-.06			
Inverted MA Roots	-.10			

## 6. Iterasi 6 GARCH (1,1)

Dependent Variable: PEMBANGKIT6  
 Method: Least Squares  
 Date: 08/08/16 Time: 21:17  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 10 iterations  
 MA Backcast: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.001217	0.000574	-2.121920	0.0343
AR(1)	0.103746	0.551390	0.188153	0.8508
MA(1)	-0.035406	0.554369	-0.063868	0.9491
R-squared	0.004826	Mean dependent var		-0.001214
Adjusted R-squared	0.001167	S.D. dependent var		0.012468
S.E. of regression	0.012461	Akaike info criterion		-5.926968
Sum squared resid	0.084469	Schwarz criterion		-5.903361
Log likelihood	1624.026	Hannan-Quinn criter.		-5.917741
F-statistic	1.319088	Durbin-Watson stat		1.996146
Prob(F-statistic)	0.268233			
Inverted AR Roots	.10			
Inverted MA Roots	.04			

## 7. Iterasi 7 GARCH (1,1)

Dependent Variable: PEMBANGKIT7  
 Method: Least Squares  
 Date: 08/08/16 Time: 21:18  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 17 iterations  
 MA Backcast: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000434	0.000472	0.918009	0.3590
AR(1)	0.436931	0.399414	1.093931	0.2745
MA(1)	-0.511341	0.381392	-1.340724	0.1806
R-squared	0.006492	Mean dependent var		0.000428
Adjusted R-squared	0.002839	S.D. dependent var		0.012720
S.E. of regression	0.012702	Akaike info criterion		-5.888612
Sum squared resid	0.087772	Schwarz criterion		-5.865005
Log likelihood	1613.535	Hannan-Quinn criter.		-5.879384
F-statistic	1.777232	Durbin-Watson stat		1.974420
Prob(F-statistic)	0.170086			
Inverted AR Roots	.44			
Inverted MA Roots	.51			

## 8. Iterasi 8 GARCH (1,1)

Dependent Variable: PEMBANGKIT8  
 Method: Least Squares  
 Date: 08/08/16 Time: 21:18  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 11 iterations  
 MA Backcast: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.59E-05	0.000548	0.174974	0.8612
AR(1)	0.422849	0.376528	1.123022	0.2619
MA(1)	-0.389867	0.384267	-1.014573	0.3108
R-squared	0.001620	Mean dependent var		0.000122
Adjusted R-squared	-0.002050	S.D. dependent var		0.012081
S.E. of regression	0.012094	Akaike info criterion		-5.986773
Sum squared resid	0.079566	Schwarz criterion		-5.963165
Log likelihood	1640.382	Hannan-Quinn criter.		-5.977545
F-statistic	0.441404	Durbin-Watson stat		2.015087
Prob(F-statistic)	0.643363			
Inverted AR Roots	.42			
Inverted MA Roots	.39			

## 9. Iterasi 9 GARCH (1,1)

Dependent Variable: PEMBANGKIT9  
 Method: Least Squares  
 Date: 08/08/16 Time: 21:19  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 19 iterations  
 MA Backcast: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.000223	0.000565	-0.395546	0.6926
AR(1)	0.226432	1.124807	0.201308	0.8405
MA(1)	-0.198879	1.131946	-0.175697	0.8606
R-squared	0.001163	Mean dependent var	-0.000232	
Adjusted R-squared	-0.002510	S.D. dependent var	0.012721	
S.E. of regression	0.012737	Akaike info criterion	-5.883120	
Sum squared resid	0.088256	Schwarz criterion	-5.859512	
Log likelihood	1612.033	Hannan-Quinn criter.	-5.873892	
F-statistic	0.316578	Durbin-Watson stat	1.989666	
Prob(F-statistic)	0.728772			
Inverted AR Roots	.23			
Inverted MA Roots	.20			

## 10. Iterasi 10 GARCH (1,1)

Dependent Variable: PEMBANGKIT10  
 Method: Least Squares  
 Date: 08/08/16 Time: 21:19  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 10 iterations  
 MA Backcast: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.000138	0.000540	-0.254862	0.7989
AR(1)	-0.529517	0.762861	-0.694120	0.4879
MA(1)	0.562961	0.743224	0.757458	0.4491
R-squared	0.001464	Mean dependent var	-0.000143	
Adjusted R-squared	-0.002208	S.D. dependent var	0.012359	
S.E. of regression	0.012372	Akaike info criterion	-5.941237	
Sum squared resid	0.083273	Schwarz criterion	-5.917630	
Log likelihood	1627.928	Hannan-Quinn criter.	-5.932010	
F-statistic	0.398676	Durbin-Watson stat	2.033665	
Prob(F-statistic)	0.671404			
Inverted AR Roots	-.53			
Inverted MA Roots	-.56			

## 11. Iterasi 11 GARCH (1,1)

Dependent Variable: PEMBANGKIT11  
 Method: Least Squares  
 Date: 08/08/16 Time: 21:21  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 29 iterations  
 MA Backcast: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000542	0.000389	1.393318	0.1641
AR(1)	0.707072	0.182739	3.869295	0.0001
MA(1)	-0.780586	0.161501	-4.833311	0.0000
R-squared	0.010768	Mean dependent var		0.000557
Adjusted R-squared	0.007131	S.D. dependent var		0.012112
S.E. of regression	0.012069	Akaike info criterion		-5.990933
Sum squared resid	0.079236	Schwarz criterion		-5.967326
Log likelihood	1641.520	Hannan-Quinn criter.		-5.981706
F-statistic	2.960872	Durbin-Watson stat		1.942203
Prob(F-statistic)	0.052609			
Inverted AR Roots	.71			
Inverted MA Roots	.78			

## 12. Iterasi 12 GARCH (1,1)

Dependent Variable: PEMBANGKIT12  
 Method: Least Squares  
 Date: 08/08/16 Time: 21:21  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 9 iterations  
 MA Backcast: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.000299	0.000108	-2.770465	0.0058
AR(1)	0.962937	0.010753	89.54702	0.0000
MA(1)	-0.996732	0.002279	-437.3131	0.0000
R-squared	0.019517	Mean dependent var		-0.000553
Adjusted R-squared	0.015913	S.D. dependent var		0.012618
S.E. of regression	0.012517	Akaike info criterion		-5.917994
Sum squared resid	0.085231	Schwarz criterion		-5.894387
Log likelihood	1621.571	Hannan-Quinn criter.		-5.908767
F-statistic	5.414369	Durbin-Watson stat		2.022498
Prob(F-statistic)	0.004695			
Inverted AR Roots	.96			
Inverted MA Roots	1.00			

## 13. Iterasi 13 GARCH (1,1)

Dependent Variable: PEMBANGKIT13  
 Method: Least Squares  
 Date: 08/08/16 Time: 21:22  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 17 iterations  
 MA Backcast: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7.60E-05	0.000490	0.155114	0.8768
AR(1)	-0.588975	0.475767	-1.237950	0.2163
MA(1)	0.573336	0.483625	1.185498	0.2363
R-squared	0.004329	Mean dependent var		7.93E-05
Adjusted R-squared	0.000669	S.D. dependent var		0.011581
S.E. of regression	0.011577	Akaike info criterion		-6.074090
Sum squared resid	0.072913	Schwarz criterion		-6.050483
Log likelihood	1664.264	Hannan-Quinn criter.		-6.064863
F-statistic	1.182699	Durbin-Watson stat		2.004615
Prob(F-statistic)	0.307237			
Inverted AR Roots	-.59			
Inverted MA Roots	-.57			

## 14. Iterasi 14 GARCH (1,1)

Dependent Variable: PEMBANGKIT14  
 Method: Least Squares  
 Date: 08/08/16 Time: 21:23  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 9 iterations  
 MA Backcast: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000476	0.000594	0.801568	0.4232
AR(1)	0.660706	0.417429	1.582798	0.1140
MA(1)	-0.621059	0.435122	-1.427320	0.1541
R-squared	0.002611	Mean dependent var		0.000485
Adjusted R-squared	-0.001055	S.D. dependent var		0.012382
S.E. of regression	0.012389	Akaike info criterion		-5.938604
Sum squared resid	0.083492	Schwarz criterion		-5.914997
Log likelihood	1627.208	Hannan-Quinn criter.		-5.929376
F-statistic	0.712154	Durbin-Watson stat		2.024798
Prob(F-statistic)	0.491043			
Inverted AR Roots	.66			
Inverted MA Roots	.62			

## 15. Iterasi 15 GARCH (1,1)

Dependent Variable: PEMBANGKIT15  
 Method: Least Squares  
 Date: 08/08/16 Time: 21:49  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 12 iterations  
 MA Backcast: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000368	0.000502	0.732532	0.4642
AR(1)	-0.224008	0.657278	-0.340812	0.7334
MA(1)	0.165765	0.665179	0.249204	0.8033
R-squared	0.003615	Mean dependent var		0.000370
Adjusted R-squared	-0.000049	S.D. dependent var		0.012330
S.E. of regression	0.012330	Akaike info criterion		-5.948060
Sum squared resid	0.082707	Schwarz criterion		-5.924452
Log likelihood	1629.794	Hannan-Quinn criter.		-5.938832
F-statistic	0.986741	Durbin-Watson stat		1.993645
Prob(F-statistic)	0.373456			
Inverted AR Roots	-0.22			
Inverted MA Roots	-0.17			

## 16. Iterasi 16 GARCH (1,1)

Dependent Variable: PEMBANGKIT16  
 Method: Least Squares  
 Date: 08/08/16 Time: 21:25  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 16 iterations  
 MA Backcast: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.001303	0.000502	2.594099	0.0097
AR(1)	-0.677760	0.355649	-1.905696	0.0572
MA(1)	0.658139	0.365217	1.802051	0.0721
R-squared	0.005469	Mean dependent var		0.001307
Adjusted R-squared	0.001813	S.D. dependent var		0.011899
S.E. of regression	0.011888	Akaike info criterion		-6.021124
Sum squared resid	0.076879	Schwarz criterion		-5.997516
Log likelihood	1649.777	Hannan-Quinn criter.		-6.011896
F-statistic	1.495817	Durbin-Watson stat		2.001199
Prob(F-statistic)	0.224985			
Inverted AR Roots	-0.68			
Inverted MA Roots	-0.66			

## 17. Iterasi 17 GARCH (1,1)

Dependent Variable: PEMBANGKIT17  
 Method: Least Squares  
 Date: 08/08/16 Time: 21:25  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 8 iterations  
 MA Backcast: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.000212	0.000583	-0.363726	0.7162
AR(1)	0.165116	0.404545	0.408154	0.6833
MA(1)	-0.061207	0.409324	-0.149531	0.8812
R-squared	0.010890	Mean dependent var		-0.000207
Adjusted R-squared	0.007253	S.D. dependent var		0.012159
S.E. of regression	0.012115	Akaike info criterion		-5.983227
Sum squared resid	0.079849	Schwarz criterion		-5.959619
Log likelihood	1639.412	Hannan-Quinn criter.		-5.973999
F-statistic	2.994642	Durbin-Watson stat		1.991768
Prob(F-statistic)	0.050880			
Inverted AR Roots	.17			
Inverted MA Roots	.06			

## 18. Iterasi 18 GARCH (1,1)

Dependent Variable: PEMBANGKIT18  
 Method: Least Squares  
 Date: 08/08/16 Time: 21:33  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 11 iterations  
 MA Backcast: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000227	0.000510	0.444639	0.6568
AR(1)	0.397671	0.825129	0.481950	0.6300
MA(1)	-0.380822	0.832359	-0.457521	0.6475
R-squared	0.000301	Mean dependent var		0.000237
Adjusted R-squared	-0.003374	S.D. dependent var		0.011542
S.E. of regression	0.011561	Akaike info criterion		-6.076880
Sum squared resid	0.072710	Schwarz criterion		-6.053273
Log likelihood	1665.027	Hannan-Quinn criter.		-6.067652
F-statistic	0.081942	Durbin-Watson stat		2.023603
Prob(F-statistic)	0.921336			
Inverted AR Roots	.40			
Inverted MA Roots	.38			



## 19. Iterasi 19 GARCH (1,1)

Dependent Variable: PEMBANGKIT19  
 Method: Least Squares  
 Date: 08/08/16 Time: 21:34  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 13 iterations  
 MA Backcast: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000187	0.000566	0.330341	0.7413
AR(1)	0.948752	0.087141	10.88752	0.0000
MA(1)	-0.948319	0.088643	-10.69814	0.0000
R-squared	0.002496	Mean dependent var		2.12E-05
Adjusted R-squared	-0.001171	S.D. dependent var		0.012186
S.E. of regression	0.012193	Akaike info criterion		-5.970476
Sum squared resid	0.080873	Schwarz criterion		-5.946868
Log likelihood	1635.925	Hannan-Quinn criter.		-5.961248
F-statistic	0.680631	Durbin-Watson stat		2.021657
Prob(F-statistic)	0.506728			
Inverted AR Roots	.95			
Inverted MA Roots	.95			

## 20. Iterasi 20 GARCH (1,1)

Dependent Variable: PEMBANGKIT20  
 Method: Least Squares  
 Date: 08/08/16 Time: 21:35  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 10 iterations  
 MA Backcast: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.000458	0.000554	-0.826230	0.4090
AR(1)	0.534785	0.518409	1.031587	0.3027
MA(1)	-0.516532	0.526391	-0.981270	0.3269
R-squared	0.003765	Mean dependent var		-0.000408
Adjusted R-squared	0.000102	S.D. dependent var		0.012410
S.E. of regression	0.012410	Akaike info criterion		-5.935236
Sum squared resid	0.083774	Schwarz criterion		-5.911628
Log likelihood	1626.287	Hannan-Quinn criter.		-5.926008
F-statistic	1.027973	Durbin-Watson stat		1.938730
Prob(F-statistic)	0.358425			
Inverted AR Roots	.53			
Inverted MA Roots	.52			

## 21. Iterasi 21 GARCH (1,1)

Dependent Variable: PEMBANGKIT21  
 Method: Least Squares  
 Date: 08/08/16 Time: 21:35  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 19 iterations  
 MA Backcast: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000124	0.000521	0.237848	0.8121
AR(1)	-0.582790	0.537430	-1.084401	0.2787
MA(1)	0.563595	0.547278	1.029814	0.3036
R-squared	0.002835	Mean dependent var		0.000128
Adjusted R-squared	-0.000831	S.D. dependent var		0.012334
S.E. of regression	0.012340	Akaike info criterion		-5.946552
Sum squared resid	0.082831	Schwarz criterion		-5.922945
Log likelihood	1629.382	Hannan-Quinn criter.		-5.937325
F-statistic	0.773442	Durbin-Watson stat		1.939383
Prob(F-statistic)	0.461929			
Inverted AR Roots	-58			
Inverted MA Roots	-56			

## 22. Iterasi 22 GARCH (1,1)

Dependent Variable: PEMBANGKIT22  
 Method: Least Squares  
 Date: 08/08/16 Time: 21:36  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 15 iterations  
 MA Backcast: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.000782	0.000515	-1.516445	0.1300
AR(1)	0.190830	1.254133	0.152161	0.8791
MA(1)	-0.158734	1.261497	-0.125830	0.8999
R-squared	0.001055	Mean dependent var		-0.000782
Adjusted R-squared	-0.002618	S.D. dependent var		0.011576
S.E. of regression	0.011591	Akaike info criterion		-6.071627
Sum squared resid	0.073093	Schwarz criterion		-6.048019
Log likelihood	1663.590	Hannan-Quinn criter.		-6.062399
F-statistic	0.287224	Durbin-Watson stat		2.003013
Prob(F-statistic)	0.750458			
Inverted AR Roots	.19			
Inverted MA Roots	.16			

## 23. Iterasi 23 GARCH (1,1)

Dependent Variable: PEMBANGKIT23  
 Method: Least Squares  
 Date: 08/08/16 Time: 21:37  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 33 iterations  
 MA Backcast: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.000713	0.000655	-1.089554	0.2764
AR(1)	0.888596	0.170816	5.202063	0.0000
MA(1)	-0.864710	0.186839	-4.628113	0.0000
R-squared	0.002829	Mean dependent var		-0.000691
Adjusted R-squared	-0.000837	S.D. dependent var		0.012442
S.E. of regression	0.012447	Akaike info criterion		-5.929128
Sum squared resid	0.084287	Schwarz criterion		-5.905520
Log likelihood	1624.616	Hannan-Quinn criter.		-5.919900
F-statistic	0.771654	Durbin-Watson stat		2.024706
Prob(F-statistic)	0.462753			
Inverted AR Roots	.89			
Inverted MA Roots	.86			

## 24. Iterasi 24 GARCH (1,1)

Dependent Variable: PEMBANGKIT24  
 Method: Least Squares  
 Date: 08/08/16 Time: 21:37  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 26 iterations  
 MA Backcast: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.000248	0.000492	-0.503950	0.6145
AR(1)	0.606075	0.231957	2.612874	0.0092
MA(1)	-0.651808	0.223215	-2.920086	0.0036
R-squared	0.008063	Mean dependent var		-0.000326
Adjusted R-squared	0.004416	S.D. dependent var		0.012952
S.E. of regression	0.012923	Akaike info criterion		-5.854137
Sum squared resid	0.090851	Schwarz criterion		-5.830530
Log likelihood	1604.107	Hannan-Quinn criter.		-5.844910
F-statistic	2.210978	Durbin-Watson stat		1.980047
Prob(F-statistic)	0.110577			
Inverted AR Roots	.61			
Inverted MA Roots	.65			

## 25. Iterasi 25 GARCH (1,1)

Dependent Variable: PEMBANGKIT25  
 Method: Least Squares  
 Date: 08/08/16 Time: 21:38  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 49 iterations  
 MA Backcast: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.82E-05	0.000494	-0.056964	0.9546
AR(1)	-0.220752	0.649817	-0.339714	0.7342
MA(1)	0.178139	0.656299	0.271430	0.7862
R-squared	0.001819	Mean dependent var		-2.34E-05
Adjusted R-squared	-0.001851	S.D. dependent var		0.011968
S.E. of regression	0.011979	Akaike info criterion		-6.005836
Sum squared resid	0.078063	Schwarz criterion		-5.982228
Log likelihood	1645.596	Hannan-Quinn criter.		-5.996608
F-statistic	0.495689	Durbin-Watson stat		1.993931
Prob(F-statistic)	0.609426			
Inverted AR Roots	-0.22			
Inverted MA Roots	-0.18			

## 26. Iterasi 26 GARCH (1,1)

Dependent Variable: PEMBANGKIT26  
 Method: Least Squares  
 Date: 08/08/16 Time: 21:39  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 18 iterations  
 MA Backcast: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.001015	0.000484	-2.098880	0.0363
AR(1)	-0.144356	0.314960	-0.458332	0.6469
MA(1)	0.020664	0.318668	0.064845	0.9483
R-squared	0.015270	Mean dependent var		-0.001015
Adjusted R-squared	0.011649	S.D. dependent var		0.012759
S.E. of regression	0.012685	Akaike info criterion		-5.891373
Sum squared resid	0.087530	Schwarz criterion		-5.867765
Log likelihood	1614.291	Hannan-Quinn criter.		-5.882145
F-statistic	4.217731	Durbin-Watson stat		1.991463
Prob(F-statistic)	0.015217			
Inverted AR Roots	-0.14			
Inverted MA Roots	-0.02			

## 27. Iterasi 27 GARCH (1,1)

Dependent Variable: PEMBANGKIT27  
 Method: Least Squares  
 Date: 08/08/16 Time: 21:39  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 14 iterations  
 MA Backcast: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000418	0.000506	0.826179	0.4091
AR(1)	0.693881	0.261761	2.650815	0.0083
MA(1)	-0.714325	0.256186	-2.788311	0.0055
R-squared	0.007765	Mean dependent var		0.000520
Adjusted R-squared	0.004117	S.D. dependent var		0.012586
S.E. of regression	0.012560	Akaike info criterion		-5.911143
Sum squared resid	0.085817	Schwarz criterion		-5.887535
Log likelihood	1619.698	Hannan-Quinn criter.		-5.901915
F-statistic	2.128553	Durbin-Watson stat		1.986742
Prob(F-statistic)	0.120000			
Inverted AR Roots	.69			
Inverted MA Roots	.71			

## 28. Iterasi 28 GARCH (1,1)

Dependent Variable: PEMBANGKIT28  
 Method: Least Squares  
 Date: 08/08/16 Time: 21:40  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 10 iterations  
 MA Backcast: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000574	0.000567	1.012580	0.3117
AR(1)	0.219733	0.736651	0.298286	0.7656
MA(1)	-0.186080	0.742647	-0.250563	0.8022
R-squared	0.001398	Mean dependent var		0.000581
Adjusted R-squared	-0.002273	S.D. dependent var		0.012670
S.E. of regression	0.012685	Akaike info criterion		-5.891402
Sum squared resid	0.087528	Schwarz criterion		-5.867794
Log likelihood	1614.298	Hannan-Quinn criter.		-5.882174
F-statistic	0.380839	Durbin-Watson stat		2.005118
Prob(F-statistic)	0.683470			
Inverted AR Roots	.22			
Inverted MA Roots	.19			

## 29. Iterasi 29 GARCH (1,1)

Dependent Variable: PEMBANGKIT29  
 Method: Least Squares  
 Date: 08/08/16 Time: 21:41  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 81 iterations  
 MA Backcast: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000277	0.000581	0.476769	0.6337
AR(1)	0.654879	0.222294	2.946002	0.0034
MA(1)	-0.631581	0.230546	-2.739497	0.0064
R-squared	0.010206	Mean dependent var		0.000385
Adjusted R-squared	0.006567	S.D. dependent var		0.012668
S.E. of regression	0.012627	Akaike info criterion		-5.900551
Sum squared resid	0.086731	Schwarz criterion		-5.876944
Log likelihood	1616.801	Hannan-Quinn criter.		-5.891324
F-statistic	2.804619	Durbin-Watson stat		2.047786
Prob(F-statistic)	0.061405			
Inverted AR Roots	.65			
Inverted MA Roots	.63			

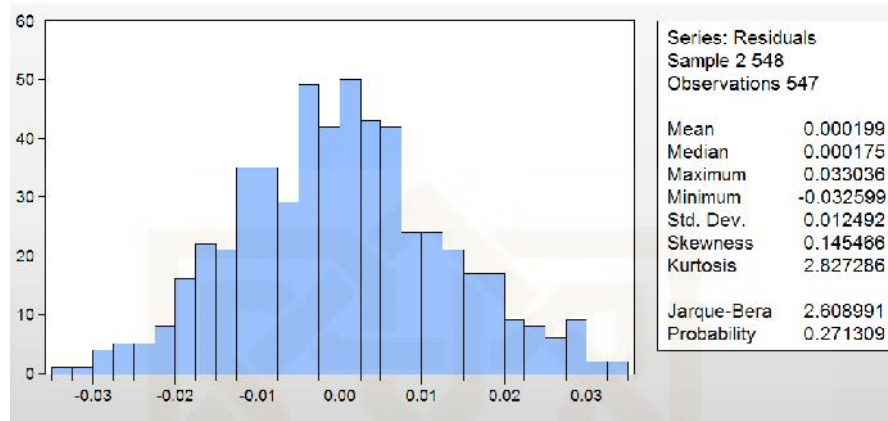
## 30. Iterasi 30 GARCH (1,1)

Dependent Variable: PEMBANGKIT30  
 Method: Least Squares  
 Date: 08/08/16 Time: 21:42  
 Sample (adjusted): 2 548  
 Included observations: 547 after adjustments  
 Convergence achieved after 23 iterations  
 MA Backcast: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.000148	0.000485	-0.305197	0.7603
AR(1)	0.611437	0.593351	1.030482	0.3032
MA(1)	-0.642634	0.574157	-1.119266	0.2635
R-squared	0.001773	Mean dependent var		-0.000125
Adjusted R-squared	-0.001897	S.D. dependent var		0.012286
S.E. of regression	0.012298	Akaike info criterion		-5.953276
Sum squared resid	0.082276	Schwarz criterion		-5.929668
Log likelihood	1631.221	Hannan-Quinn criter.		-5.944048
F-statistic	0.482987	Durbin-Watson stat		1.981873
Prob(F-statistic)	0.617202			
Inverted AR Roots	.61			
Inverted MA Roots	.64			

## LAMPIRAN 9: Uji diagnosa untuk data iterasi 12 model GARCH (1,1)

### 1. Uji Normalitas



### 2. Uji Heterokedastisitas

#### Heteroskedasticity Test: ARCH

F-statistic	1.718643	Prob. F(1,544)	0.1904
Obs*R-squared	1.719529	Prob. Chi-Square(1)	0.1898

#### Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 08/08/16 Time: 23:58

Sample (adjusted): 3 548

Included observations: 546 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000147	1.12E-05	13.10478	0.0000
RESID^2(-1)	0.056115	0.042804	1.310970	0.1904
R-squared	0.003149	Mean dependent var		0.000156
Adjusted R-squared	0.001317	S.D. dependent var		0.000211
S.E. of regression	0.000211	Akaike info criterion		-14.08285
Sum squared resid	2.43E-05	Schwarz criterion		-14.06709
Log likelihood	3846.619	Hannan-Quinn criter.		-14.07669
F-statistic	1.718643	Durbin-Watson stat		1.997879
Prob(F-statistic)	0.190421			

**LAMPIRAN 10: Perhitungan *Likelihood Ratio Test***

<b>Date</b>	<b>Return</b>	<b>Return* 10000000</b>	<b>T-1 Hari</b>	<b>T-2 Hari</b>	<b>T-3 Hari</b>	<b>T-4 Hari</b>
1/2/2014	0	0	True	True	True	True
1/3/2014	-0.017787062	-177870.6157	True	True	True	True
1/6/2014	-0.009797897	-97978.97407	True	True	True	True
1/7/2014	-0.013261577	-132615.7706	True	True	True	True
1/8/2014	0.007173349	71733.48729	True	True	True	True
1/9/2014	-0.003702033	-37020.33439	True	True	True	True
1/10/2014	0.014006031	140060.3146	True	True	True	True
1/13/2014	0.032818613	328186.1333	True	True	True	True
1/15/2014	0.013353271	133532.711	True	True	True	True
1/16/2014	-0.00506283	-50628.30397	True	True	True	True
1/17/2014	-0.006215527	-62155.27308	True	True	True	True
1/20/2014	0.00868438	86843.79859	True	True	True	True
1/21/2014	0.00129778	12977.7994	True	True	True	True
1/22/2014	0.008663563	86635.63051	True	True	True	True
1/23/2014	0.000911025	9110.251741	True	True	True	True
1/24/2014	-0.017386854	-173868.5408	True	True	True	True
1/27/2014	-0.034491094	-344910.9407	<b>False</b>	True	True	True
1/28/2014	0.007490569	74905.69352	True	True	True	True
1/29/2014	0.022306937	223069.3687	True	True	True	True
1/30/2014	0.002208579	22085.79421	True	True	True	True
2/3/2014	-0.012098705	-120987.0503	True	True	True	True
2/4/2014	-0.013743664	-137436.6386	True	True	True	True
2/5/2014	0.011861509	118615.0856	True	True	True	True
2/6/2014	0.010974044	109740.437	True	True	True	True
2/7/2014	0.008548149	85481.48818	True	True	True	True
2/10/2014	-0.00477857	-47785.69762	True	True	True	True
2/11/2014	0.002268148	22681.48232	True	True	True	True
2/12/2014	0.007217163	72171.6276	True	True	True	True
2/13/2014	-0.003058534	-30585.34027	True	True	True	True
2/14/2014	0.002877842	28778.41935	True	True	True	True
2/17/2014	0.010844664	108446.6399	True	True	True	True
2/18/2014	-0.000828805	-8288.045849	True	True	True	True
2/19/2014	0.010721066	107210.6553	True	True	True	True
2/20/2014	0.000691368	6913.682615	True	True	True	True
2/21/2014	0.007701395	77013.95355	True	True	True	True
2/24/2014	-0.008055018	-80550.18065	True	True	True	True
2/25/2014	-0.012067279	-120672.7914	True	True	True	True
2/26/2014	-0.013846811	-138468.115	True	True	True	True
2/27/2014	0.011174397	111743.9686	True	True	True	True
2/28/2014	0.022619272	226192.7178	True	True	True	True
3/3/2014	-0.012650277	-126502.7661	True	True	True	True
3/4/2014	0.001727171	17271.70922	True	True	True	True
3/5/2014	0.012740066	127400.6587	True	True	True	True



<b>Date</b>	<b>Return</b>	<b>Return* 1000000</b>	<b>T-1 Hari</b>	<b>T-2 Hari</b>	<b>T-3 Hari</b>	<b>T-4 Hari</b>
3/6/2014	0.004765696	47656.96073	True	True	True	True
3/7/2014	0.001172039	11720.38726	True	True	True	True
3/10/2014	0.001850288	18502.88013	True	True	True	True
3/11/2014	0.003847801	38478.01095	True	True	True	True
3/12/2014	-0.003437069	-34370.68736	True	True	True	True
3/13/2014	0.012774035	127740.346	True	True	True	True
3/14/2014	0.031359758	313597.5819	True	True	True	True
3/17/2014	0.003198547	31985.46843	True	True	True	True
3/18/2014	-0.019070178	-190701.7763	True	True	True	True
3/19/2014	0.006320957	63209.57308	True	True	True	True
3/20/2014	-0.03300501	-330050.1046	<b>False</b>	True	True	True
3/21/2014	0.00374592	37459.20167	True	True	True	True
3/24/2014	0.00194609	19460.90407	True	True	True	True
3/25/2014	-0.008423683	-84236.83458	True	True	True	True
3/26/2014	0.006367607	63676.06638	True	True	True	True
3/27/2014	-0.002296438	-22964.38288	True	True	True	True
3/28/2014	0.008452028	84520.28126	True	True	True	True
4/1/2014	0.025712482	257124.8241	True	True	True	True
4/2/2014	-0.002773642	-27736.41534	True	True	True	True
4/3/2014	0.004962727	49627.27309	True	True	True	True
4/4/2014	-0.008019572	-80195.71572	True	True	True	True
4/7/2014	0.021129232	211292.3245	True	True	True	True
4/8/2014	-0.001049606	-10496.06473	True	True	True	True
4/9/2014	0	0	True	True	True	True
4/10/2014	-0.035692161	-356921.6084	<b>False</b>	True	True	True
4/11/2014	0.015627856	156278.5612	True	True	True	True
4/14/2014	0.009794506	97945.05905	True	True	True	True
4/15/2014	0.000106112	1061.12206	True	True	True	True
4/16/2014	-0.00291437	-29143.70144	True	True	True	True
4/17/2014	0.00867241	86724.09643	True	True	True	True
4/21/2014	-0.000105503	-1055.029313	True	True	True	True
4/22/2014	0.000918894	9188.943343	True	True	True	True
4/23/2014	1.50722E-05	150.7223659	True	True	True	True
4/24/2014	-0.001446557	-14465.57215	True	True	True	True
4/25/2014	4.52793E-05	452.7929141	True	True	True	True
4/28/2014	-0.019627155	-196271.5508	True	True	True	True
4/29/2014	-0.007826722	-78267.21604	True	True	True	True
4/30/2014	0.003743443	37434.4253	True	True	True	True
5/2/2014	-0.002194855	-21948.55306	True	True	True	True
5/5/2014	0.003089999	30899.98596	True	True	True	True
5/6/2014	-0.001868342	-18683.42028	True	True	True	True
5/7/2014	0.007222253	72222.52651	True	True	True	True
5/8/2014	0.00164045	16404.50225	True	True	True	True
5/9/2014	0.0048138	48137.99554	True	True	True	True
5/12/2014	0.009890645	98906.4522	True	True	True	True

<b>Date</b>	<b>Return</b>	<b>Return* 1000000</b>	<b>T-1 Hari</b>	<b>T-2 Hari</b>	<b>T-3 Hari</b>	<b>T-4 Hari</b>
5/13/2014	-0.002145768	-21457.68237	True	True	True	True
5/14/2014	0.017321302	173213.0182	True	True	True	True
5/16/2014	0.011868084	118680.8357	True	True	True	True
5/19/2014	-0.003753547	-37535.47045	True	True	True	True
5/20/2014	-0.026904235	-269042.346	True	True	True	True
5/21/2014	0.007095137	70951.36926	True	True	True	True
5/22/2014	0.011560794	115607.9365	True	True	True	True
5/23/2014	-0.000595001	-5950.008378	True	True	True	True
5/26/2014	-0.000431537	-4315.373661	True	True	True	True
5/28/2014	0.003180337	31803.36693	True	True	True	True
5/30/2014	-0.025745536	-257455.3563	True	True	True	True
6/2/2014	0.003146555	31465.55362	True	True	True	True
6/3/2014	0.005614745	56147.44832	True	True	True	True
6/4/2014	-0.001495194	-14951.93734	True	True	True	True
6/5/2014	0.002128916	21289.16328	True	True	True	True
6/6/2014	0.005069845	50698.45098	True	True	True	True
6/9/2014	-0.011181782	-111817.8216	True	True	True	True
6/10/2014	0.015344727	153447.2707	True	True	True	True
6/11/2014	0.005677384	56773.8406	True	True	True	True
6/12/2014	-0.009465249	-94652.49272	True	True	True	True
6/13/2014	-0.002072203	-20722.03208	True	True	True	True
6/16/2014	-0.014184628	-141846.2846	True	True	True	True
6/17/2014	0.008516741	85167.40825	True	True	True	True
6/18/2014	-0.005244218	-52442.17671	True	True	True	True
6/19/2014	-0.005623262	-56232.62242	True	True	True	True
6/20/2014	-0.002126494	-21264.93801	True	True	True	True
6/23/2014	0.000719577	7195.765954	True	True	True	True
6/24/2014	0.00185006	18500.59738	True	True	True	True
6/25/2014	-0.004623854	-46238.54478	True	True	True	True
6/26/2014	0.007735145	77351.44616	True	True	True	True
6/27/2014	-0.007336209	-73362.09426	True	True	True	True
6/30/2014	0.004759377	47593.76588	True	True	True	True
7/1/2014	0.002058911	20589.11048	True	True	True	True
7/2/2014	0.011377115	113771.1459	True	True	True	True
7/3/2014	-0.003123009	-31230.09452	True	True	True	True
7/4/2014	0.002776521	27765.2096	True	True	True	True
7/7/2014	0.023499962	234999.6196	True	True	True	True
7/8/2014	0.0056946	56945.99875	True	True	True	True
7/10/2014	0.013894156	138941.5628	True	True	True	True
7/11/2014	-0.018941341	-189413.4061	True	True	True	True
7/14/2014	-0.000205881	-2058.813156	True	True	True	True
7/15/2014	0.012413242	124132.4182	True	True	True	True
7/16/2014	0.009098238	90982.38043	True	True	True	True
7/17/2014	-0.012402177	-124021.7735	True	True	True	True
7/18/2014	0.0056116	56116.0005	True	True	True	True

<b>Date</b>	<b>Return</b>	<b>Return* 1000000</b>	<b>T-1 Hari</b>	<b>T-2 Hari</b>	<b>T-3 Hari</b>	<b>T-4 Hari</b>
7/21/2014	0.010556024	105560.2447	True	True	True	True
7/22/2014	-0.006880451	-68804.50902	True	True	True	True
7/23/2014	-0.000274476	-2744.761487	True	True	True	True
7/24/2014	0.000462237	4622.374652	True	True	True	True
7/25/2014	-0.002979332	-29793.31899	True	True	True	True
8/4/2014	0.015564733	155647.3288	True	True	True	True
8/5/2014	-0.005835277	-58352.77343	True	True	True	True
8/6/2014	-0.013386219	-133862.1868	True	True	True	True
8/7/2014	0.003642266	36422.6565	True	True	True	True
8/8/2014	-0.005315504	-53155.04286	True	True	True	True
8/11/2014	0.01534623	153462.2964	True	True	True	True
8/12/2014	0.004064327	40643.27252	True	True	True	True
8/13/2014	0.010216281	102162.8125	True	True	True	True
8/14/2014	-0.00505958	-50595.80366	True	True	True	True
8/15/2014	-0.003373063	-33730.62796	True	True	True	True
8/18/2014	0.001467287	14672.86656	True	True	True	True
8/19/2014	-0.001567096	-15670.96324	True	True	True	True
8/20/2014	0.006891205	68912.04556	True	True	True	True
8/21/2014	0.00172606	17260.60476	True	True	True	True
8/22/2014	-0.004576185	-45761.84723	True	True	True	True
8/25/2014	-0.004440333	-44403.3305	True	True	True	True
8/26/2014	-0.007286645	-72866.44988	True	True	True	True
8/27/2014	0.00417228	41722.79613	True	True	True	True
8/28/2014	0.003727498	37274.98033	True	True	True	True
8/29/2014	-0.014921492	-149214.9153	True	True	True	True
9/1/2014	0.012037848	120378.4766	True	True	True	True
9/2/2014	0.005062202	50622.01863	True	True	True	True
9/3/2014	0.005913754	59137.54493	True	True	True	True
9/4/2014	-0.007080793	-70807.93249	True	True	True	True
9/5/2014	0.000882506	8825.064191	True	True	True	True
9/8/2014	0.007272353	72723.52827	True	True	True	True
9/9/2014	-0.013895868	-138958.6784	True	True	True	True
9/10/2014	-0.013786754	-137867.5441	True	True	True	True
9/11/2014	-0.007769913	-77699.12891	True	True	True	True
9/12/2014	0.00781343	78134.30421	True	True	True	True
9/15/2014	0.004231007	42310.07363	True	True	True	True
9/16/2014	-0.000867895	-8678.953393	True	True	True	True
9/17/2014	0.011639704	116397.0416	True	True	True	True
9/18/2014	0.00517895	51789.50241	True	True	True	True
9/19/2014	0.002827924	28279.23714	True	True	True	True
9/22/2014	-0.00325491	-32549.10369	True	True	True	True
9/23/2014	-0.008908877	-89088.77059	True	True	True	True
9/24/2014	-0.005271014	-52710.1416	True	True	True	True
9/25/2014	0.003560245	35602.45267	True	True	True	True
9/26/2014	-0.010660936	-106609.3572	True	True	True	True

<b>Date</b>	<b>Return</b>	<b>Return* 1000000</b>	<b>T-1 Hari</b>	<b>T-2 Hari</b>	<b>T-3 Hari</b>	<b>T-4 Hari</b>
9/29/2014	0.002686751	26867.51433	True	True	True	True
9/30/2014	-0.002701309	-27013.08786	True	True	True	True
10/1/2014	-0.007634989	-76349.88603	True	True	True	True
10/2/2014	-0.030789065	-307890.6474	<b>False</b>	True	True	True
10/3/2014	-0.004103954	-41039.54447	True	True	True	True
10/6/2014	0.009259123	92591.23281	True	True	True	True
10/7/2014	0.008816587	88165.86906	True	True	True	True
10/8/2014	-0.01752959	-175295.9004	True	True	True	True
10/9/2014	0.005249006	52490.05819	True	True	True	True
10/10/2014	-0.010357941	-103579.4099	True	True	True	True
10/13/2014	-0.013428377	-134283.766	True	True	True	True
10/14/2014	0.004778191	47781.91491	True	True	True	True
10/15/2014	0.003729533	37295.32778	True	True	True	True
10/16/2014	-0.001211021	-12110.21416	True	True	True	True
10/17/2014	0.017620504	176205.0395	True	True	True	True
10/20/2014	-0.001432694	-14326.93899	True	True	True	True
10/21/2014	-0.001117388	-11173.8781	True	True	True	True
10/22/2014	0.009398495	93984.94687	True	True	True	True
10/23/2014	0.004390691	43906.91005	True	True	True	True
10/24/2014	-0.006968408	-69684.07642	True	True	True	True
10/27/2014	-0.011636842	-116368.4236	True	True	True	True
10/28/2014	-0.009273191	-92731.91192	True	True	True	True
10/29/2014	0.022993687	229936.8687	True	True	True	True
10/30/2014	-0.001483565	-14835.64775	True	True	True	True
10/31/2014	0.005429071	54290.71477	True	True	True	True
11/3/2014	-0.000372959	-3729.589852	True	True	True	True
11/4/2014	-0.008601608	-86016.08419	True	True	True	True
11/5/2014	0.001473789	14737.88874	True	True	True	True
11/6/2014	-0.004956401	-49564.01117	True	True	True	True
11/7/2014	-0.012339074	-123390.7399	True	True	True	True
11/10/2014	-0.006704169	-67041.69338	True	True	True	True
11/11/2014	0.018348252	183482.5153	True	True	True	True
11/12/2014	0.00337959	33795.8988	True	True	True	True
11/13/2014	0.002677502	26775.01948	True	True	True	True
11/14/2014	0.000210305	2103.053553	True	True	True	True
11/17/2014	0.004001928	40019.28264	True	True	True	True
11/18/2014	0.010786628	107866.2797	True	True	True	True
11/19/2014	0.004252819	42528.19385	True	True	True	True
11/20/2014	-0.008954846	-89548.45941	True	True	True	True
11/21/2014	0.00730313	73031.30471	True	True	True	True
11/24/2014	0.013152542	131525.4176	True	True	True	True
11/25/2014	-0.009351833	-93518.33	True	True	True	True
11/26/2014	0.002203129	22031.29411	True	True	True	True
11/27/2014	0.004552483	45524.82783	True	True	True	True
11/28/2014	-0.002471252	-24712.52087	True	True	True	True

<b>Date</b>	<b>Return</b>	<b>Return* 1000000</b>	<b>T-1 Hari</b>	<b>T-2 Hari</b>	<b>T-3 Hari</b>	<b>T-4 Hari</b>
12/1/2014	0.003478473	34784.73456	True	True	True	True
12/2/2014	0.000758334	7583.336089	True	True	True	True
12/3/2014	-0.006112639	-61126.39249	True	True	True	True
12/4/2014	0.007234617	72346.17217	True	True	True	True
12/5/2014	0.002312818	23128.17986	True	True	True	True
12/8/2014	-0.010971234	-109712.3416	True	True	True	True
12/9/2014	-0.00303057	-30305.69796	True	True	True	True
12/10/2014	0.005890807	58908.06897	True	True	True	True
12/11/2014	-0.004492144	-44921.4356	True	True	True	True
12/12/2014	0.001073552	10735.5182	True	True	True	True
12/15/2014	-0.009020687	-90206.87302	True	True	True	True
12/16/2014	-0.016282423	-162824.2277	True	True	True	True
12/17/2014	-0.002701968	-27019.67715	True	True	True	True
12/18/2014	0.020777231	207772.312	True	True	True	True
12/19/2014	0.005447839	54478.39212	True	True	True	True
12/29/2014	0.009758226	97582.25889	True	True	True	True
12/30/2014	0.007553274	75532.73638	True	True	True	True
12/31/2014	0	0	True	True	True	True
1/2/2015	0.004951246	49512.45582	True	True	True	True
1/5/2015	-0.007776997	-77769.97201	True	True	True	True
1/6/2015	-0.011706825	-117068.246	True	True	True	True
1/7/2015	0.009411288	94112.88275	True	True	True	True
1/8/2015	0.000915938	9159.379676	True	True	True	True
1/9/2015	0.001176389	11763.89455	True	True	True	True
1/12/2015	-0.007532446	-75324.45987	True	True	True	True
1/13/2015	0.012166459	121664.5894	True	True	True	True
1/14/2015	-0.01527177	-152717.6961	True	True	True	True
1/15/2015	0.008632693	86326.9252	True	True	True	True
1/16/2015	-0.008588641	-85886.40735	True	True	True	True
1/19/2015	-7.33307E-05	-733.3074076	True	True	True	True
1/20/2015	0.010187906	101879.0641	True	True	True	True
1/21/2015	0.019386222	193862.2218	True	True	True	True
1/22/2015	0.009554059	95540.59358	True	True	True	True
1/23/2015	0.011069304	110693.0354	True	True	True	True
1/26/2015	-0.015891637	-158916.367	True	True	True	True
1/27/2015	0.0032269	32269.00313	True	True	True	True
1/28/2015	-0.00229169	-22916.89988	True	True	True	True
1/29/2015	-0.004243651	-42436.5129	True	True	True	True
1/30/2015	0.005078842	50788.41768	True	True	True	True
2/2/2015	-0.007357037	-73570.37296	True	True	True	True
2/3/2015	0.004466156	44661.55839	True	True	True	True
2/4/2015	0.00577343	57734.29803	True	True	True	True
2/5/2015	-0.011808851	-118088.5051	True	True	True	True
2/6/2015	0.01575192	157519.2019	True	True	True	True
2/9/2015	-0.000885828	-8858.276105	True	True	True	True

<b>Date</b>	<b>Return</b>	<b>Return* 1000000</b>	<b>T-1 Hari</b>	<b>T-2 Hari</b>	<b>T-3 Hari</b>	<b>T-4 Hari</b>
2/10/2015	-0.005472903	-54729.03049	True	True	True	True
2/11/2015	0.007229718	72297.18148	True	True	True	True
2/12/2015	0.00258038	25803.80371	True	True	True	True
2/13/2015	0.010519075	105190.7485	True	True	True	True
2/16/2015	-0.0166726	-166726.0041	True	True	True	True
2/17/2015	0.00665768	66576.80097	True	True	True	True
2/18/2015	0.006057109	60571.09054	True	True	True	True
2/19/2015	0	0	True	True	True	True
2/20/2015	-0.004630295	-46302.94807	True	True	True	True
2/23/2015	0.004226726	42267.26432	True	True	True	True
2/24/2015	0.002835628	28356.283	True	True	True	True
2/25/2015	0.009683278	96832.77917	True	True	True	True
2/26/2015	-9.62421E-05	-962.4212124	True	True	True	True
2/27/2015	-0.007271682	-72716.81825	True	True	True	True
3/2/2015	0.008974989	89749.88624	True	True	True	True
3/3/2015	0.002179897	21798.9681	True	True	True	True
3/4/2015	-0.009369969	-93699.69108	True	True	True	True
3/5/2015	-0.001798694	-17986.94292	True	True	True	True
3/6/2015	0.017516542	175165.4184	True	True	True	True
3/9/2015	-0.013977551	-139775.5131	True	True	True	True
3/10/2015	0.001654536	16545.36055	True	True	True	True
3/11/2015	-0.007356256	-73562.5627	True	True	True	True
3/12/2015	0.004486597	44865.97417	True	True	True	True
3/13/2015	-0.000124394	-1243.939332	True	True	True	True
3/16/2015	0.002304968	23049.67841	True	True	True	True
3/17/2015	-0.000924095	-9240.954491	True	True	True	True
3/18/2015	-0.008815006	-88150.06491	True	True	True	True
3/19/2015	0.00906335	90633.50108	True	True	True	True
3/20/2015	-0.004410565	-44105.64927	True	True	True	True
3/23/2015	-0.00092881	-9288.09854	True	True	True	True
3/24/2015	0.000693241	6932.40929	True	True	True	True
3/25/2015	-0.014617714	-146177.1442	True	True	True	True
3/26/2015	-0.010675245	-106752.4535	True	True	True	True
3/27/2015	0.009197354	91973.54017	True	True	True	True
3/30/2015	0.014708643	147086.4298	True	True	True	True
3/31/2015	0.010630337	106303.3678	True	True	True	True
4/1/2015	-0.013284756	-132847.5601	True	True	True	True
4/2/2015	-0.002494151	-24941.51289	True	True	True	True
4/6/2015	0.005661964	56619.64041	True	True	True	True
4/7/2015	0.009237658	92376.58163	True	True	True	True
4/8/2015	-0.010459158	-104591.5799	True	True	True	True
4/9/2015	0.005346846	53468.46308	True	True	True	True
4/10/2015	-0.002448196	-24481.95822	True	True	True	True
4/13/2015	-0.006460587	-64605.8748	True	True	True	True
4/14/2015	-0.008848264	-88482.63725	True	True	True	True

<b>Date</b>	<b>Return</b>	<b>Return* 1000000</b>	<b>T-1 Hari</b>	<b>T-2 Hari</b>	<b>T-3 Hari</b>	<b>T-4 Hari</b>
4/15/2015	-2.80664E-05	-280.663758	True	True	True	True
4/16/2015	-0.000956812	-9568.118915	True	True	True	True
4/17/2015	-0.001521344	-15213.43649	True	True	True	True
4/20/2015	-0.00718748	-71874.79744	True	True	True	True
4/21/2015	0.019308279	193082.7889	True	True	True	True
4/22/2015	-0.002593942	-25939.4195	True	True	True	True
4/23/2015	0.003804936	38049.35781	True	True	True	True
4/24/2015	0.006157538	61575.38339	True	True	True	True
4/27/2015	-0.035247349	-352473.4894	<b>False</b>	True	True	True
4/28/2015	0.004059159	40591.5857	True	True	True	True
4/29/2015	-0.038101955	-381019.5513	<b>False</b>	True	True	True
4/30/2015	-0.015033847	-150338.4683	True	True	True	True
5/1/2015	0	0	True	True	True	True
5/4/2015	0.021370475	213704.752	True	True	True	True
5/5/2015	0.010385292	103852.9213	True	True	True	True
5/6/2015	0.008777378	87773.77527	True	True	True	True
5/7/2015	-0.009185518	-91855.17635	True	True	True	True
5/8/2015	0.015521067	155210.6654	True	True	True	True
5/11/2015	-0.000775439	-7754.390719	True	True	True	True
5/12/2015	0.001134209	11342.09206	True	True	True	True
5/13/2015	0.012944081	129440.8119	True	True	True	True
5/15/2015	0.003986134	39861.34123	True	True	True	True
5/18/2015	-0.000479717	-4797.172347	True	True	True	True
5/19/2015	0.004562539	45625.38687	True	True	True	True
5/20/2015	0.00427604	42760.40339	True	True	True	True
5/21/2015	-0.003531633	-35316.3325	True	True	True	True
5/22/2015	-0.00071628	-7162.79631	True	True	True	True
5/25/2015	-0.000702721	-7027.209446	True	True	True	True
5/26/2015	0.011226368	112263.6752	True	True	True	True
5/27/2015	-0.01615929	-161592.8977	True	True	True	True
5/28/2015	-0.0008623	-8622.999595	True	True	True	True
5/29/2015	-0.012937516	-129375.1616	True	True	True	True
6/1/2015	0.003689116	36891.15576	True	True	True	True
6/3/2015	-0.011844652	-118446.5191	True	True	True	True
6/4/2015	-0.010321784	-103217.8373	True	True	True	True
6/5/2015	-0.000788266	-7882.660895	True	True	True	True
6/8/2015	-0.01750167	-175016.6952	True	True	True	True
6/9/2015	-0.025848753	-258487.5305	True	True	True	True
6/10/2015	0.013707645	137076.4455	True	True	True	True
6/11/2015	0.0027791	27790.99747	True	True	True	True
6/12/2015	-0.001411141	-14111.40756	True	True	True	True
6/15/2015	-0.0268266	-268266.0022	True	True	True	True
6/16/2015	0.007670726	76707.25543	True	True	True	True
6/17/2015	0.011858384	118583.8425	True	True	True	True
6/18/2015	0.00639576	63957.60457	True	True	True	True

<b>Date</b>	<b>Return</b>	<b>Return* 1000000</b>	<b>T-1 Hari</b>	<b>T-2 Hari</b>	<b>T-3 Hari</b>	<b>T-4 Hari</b>
6/19/2015	0.002642896	26428.95783	True	True	True	True
6/22/2015	-0.007798531	-77985.30881	True	True	True	True
6/23/2015	-0.006870215	-68702.147	True	True	True	True
6/24/2015	0.013993655	139936.5498	True	True	True	True
6/25/2015	-0.009923495	-99234.95101	True	True	True	True
6/26/2015	-0.001425715	-14257.14664	True	True	True	True
6/29/2015	-0.009194403	-91944.03406	True	True	True	True
6/30/2015	0.006367331	63673.31289	True	True	True	True
7/1/2015	-0.003323668	-33236.68283	True	True	True	True
7/2/2015	0.011554656	115546.5602	True	True	True	True
7/3/2015	0.012765029	127650.29	True	True	True	True
7/6/2015	-0.014351366	-143513.6556	True	True	True	True
7/7/2015	-0.005534169	-55341.68874	True	True	True	True
7/8/2015	-0.00681936	-68193.60354	True	True	True	True
7/9/2015	-0.011795235	-117952.3521	True	True	True	True
7/10/2015	0.004867335	48673.35498	True	True	True	True
7/13/2015	0.009328395	93283.94709	True	True	True	True
7/14/2015	0.001647975	16479.75493	True	True	True	True
7/15/2015	-0.003436298	-34362.98166	True	True	True	True
7/22/2015	0.007225407	72254.0697	True	True	True	True
7/23/2015	-0.003118495	-31184.95198	True	True	True	True
7/24/2015	-0.014425431	-144254.3091	True	True	True	True
7/27/2015	-0.023142645	-231426.4526	True	True	True	True
7/28/2015	-0.005568056	-55680.5605	True	True	True	True
7/29/2015	0.000747332	7473.321444	True	True	True	True
7/30/2015	-0.000317889	-3178.887149	True	True	True	True
7/31/2015	0.020569229	205692.2874	True	True	True	True
8/3/2015	-0.007787587	-77875.8729	True	True	True	True
8/4/2015	-0.004358089	-43580.89488	True	True	True	True
8/5/2015	0.015690998	156909.9786	True	True	True	True
8/6/2015	-0.015028917	-150289.169	True	True	True	True
8/7/2015	-0.004532497	-45324.97112	True	True	True	True
8/10/2015	-0.004664459	-46644.58582	True	True	True	True
8/11/2015	-0.034097364	-340973.6374	<b>False</b>	True	True	True
8/12/2015	-0.037604895	-376048.9501	<b>False</b>	True	True	True
8/13/2015	0.033565465	335654.6489	True	True	True	True
8/14/2015	0.001832097	18320.9736	True	True	True	True
8/18/2015	-0.015320956	-153209.5637	True	True	True	True
8/19/2015	-0.00850911	-85091.10249	True	True	True	True
8/20/2015	-0.00701629	-70162.89871	True	True	True	True
8/21/2015	-0.027553433	-275534.3272	<b>False</b>	True	True	True
8/24/2015	-0.049490562	-494905.6191	<b>False</b>	<b>False</b>	<b>False</b>	True
8/25/2015	0.019067914	190679.1375	True	True	True	True
8/26/2015	-0.003213057	-32130.57323	True	True	True	True
8/27/2015	0.056381589	563815.8851	True	True	True	True



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8/28/2015	0.001571033	15710.33214	True	True	True	True
8/31/2015	0.020585513	205855.1279	True	True	True	True
9/1/2015	-0.02398676	-239867.6031	True	True	True	True
9/2/2015	-0.00246838	-24683.80462	True	True	True	True
9/3/2015	0.014026121	140261.2076	True	True	True	True
9/4/2015	-0.002966028	-29660.28386	True	True	True	True
9/7/2015	-0.04125421	-412542.1036	<b>False</b>	<b>False</b>	True	True
9/8/2015	0.003549157	35491.57357	True	True	True	True
9/9/2015	0.013393813	133938.1308	True	True	True	True
9/10/2015	0.003593612	35936.11821	True	True	True	True
9/11/2015	0.01349469	134946.8971	True	True	True	True
9/14/2015	0.011525003	115250.0289	True	True	True	True
9/15/2015	-0.019455141	-194551.4072	True	True	True	True
9/16/2015	-0.005547207	-55472.07209	True	True	True	True
9/17/2015	0.012673413	126734.1285	True	True	True	True
9/18/2015	0.00070135	7013.50432	True	True	True	True
9/21/2015	-0.002670956	-26709.56499	True	True	True	True
9/22/2015	-0.012282042	-122820.4218	True	True	True	True
9/23/2015	-0.0257201	-257201.0033	True	True	True	True
9/25/2015	-0.007687208	-76872.07517	True	True	True	True
9/28/2015	-0.027712044	-277120.4376	<b>False</b>	True	True	True
9/29/2015	0.022674545	226745.449	True	True	True	True
9/30/2015	0.002989654	29896.53868	True	True	True	True
10/1/2015	0.012455991	124559.9064	True	True	True	True
10/2/2015	-0.016456198	-164561.977	True	True	True	True
10/5/2015	0.039767818	397678.1803	True	True	True	True
10/6/2015	0.034683133	346831.3338	True	True	True	True
10/7/2015	0.009789685	97896.85004	True	True	True	True
10/8/2015	-0.002326102	-23261.02214	True	True	True	True
10/9/2015	0.023476672	234766.7176	True	True	True	True
10/12/2015	0.005913333	59133.33398	True	True	True	True
10/13/2015	-0.043073895	-430738.9462	<b>False</b>	<b>False</b>	True	True
10/15/2015	0.010901942	109019.4153	True	True	True	True
10/16/2015	0.004211494	42114.93663	True	True	True	True
10/19/2015	0.016637907	166379.0734	True	True	True	True
10/20/2015	0.001191954	11919.54087	True	True	True	True
10/21/2015	0.006651619	66516.1943	True	True	True	True
10/22/2015	-0.009102241	-91022.40555	True	True	True	True
10/23/2015	0.01445317	144531.7041	True	True	True	True
10/26/2015	0.005418665	54186.65134	True	True	True	True
10/27/2015	-0.004290687	-42906.86793	True	True	True	True
10/28/2015	-0.016301143	-163011.4319	True	True	True	True
10/29/2015	-0.039959657	-399596.5715	<b>False</b>	<b>False</b>	True	True
10/30/2015	-0.001483279	-14832.79257	True	True	True	True
11/2/2015	0.012681645	126816.4467	True	True	True	True

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11/3/2015	0.009873856	98738.55935	True	True	True	True
11/4/2015	0.018183222	181832.2165	True	True	True	True
11/5/2015	-0.008620587	-86205.8676	True	True	True	True
11/6/2015	-0.002382099	-23820.99107	True	True	True	True
11/9/2015	-0.020784548	-207845.4834	True	True	True	True
11/10/2015	-0.015610625	-156106.2541	True	True	True	True
11/11/2015	0.004575461	45754.61355	True	True	True	True
11/12/2015	-0.004111891	-41118.90783	True	True	True	True
11/13/2015	0.008666513	86665.12606	True	True	True	True
11/16/2015	-0.010298717	-102987.1715	True	True	True	True
11/17/2015	0.01327276	132727.6027	True	True	True	True
11/18/2015	0.007590313	75903.1297	True	True	True	True
11/19/2015	0.00515687	51568.70447	True	True	True	True
11/20/2015	0.012785247	127852.4697	True	True	True	True
11/23/2015	-0.014898541	-148985.4135	True	True	True	True
11/24/2015	-0.001209548	-12095.47576	True	True	True	True
11/25/2015	0.00736927	73692.70093	True	True	True	True
11/26/2015	0.004179528	41795.27653	True	True	True	True
11/27/2015	-0.001247059	-12470.59226	True	True	True	True
11/30/2015	-0.035978256	-359782.5567	<b>False</b>	True	True	True
12/1/2015	0.030957773	309577.7262	True	True	True	True
12/2/2015	-0.001891333	-18913.33027	True	True	True	True
12/3/2015	-0.000553038	-5530.377803	True	True	True	True
12/4/2015	-0.006170806	-61708.0641	True	True	True	True
12/7/2015	0.004744918	47449.18145	True	True	True	True
12/8/2015	-0.022939464	-229394.6416	True	True	True	True
12/10/2015	-0.006738501	-67385.00765	True	True	True	True
12/11/2015	-0.023107686	-231076.8614	True	True	True	True
12/14/2015	0.000955105	9551.047576	True	True	True	True
12/15/2015	0.013259628	132596.2826	True	True	True	True
12/16/2015	0.017278919	172789.1859	True	True	True	True
12/17/2015	0.02931727	293172.6996	True	True	True	True
12/18/2015	-0.020695002	-206950.0157	True	True	True	True
12/21/2015	0.005881874	58818.74183	True	True	True	True
12/22/2015	0.006586408	65864.08051	True	True	True	True
12/23/2015	-0.003953365	-39533.65198	True	True	True	True
12/28/2015	0.006770168	67701.68404	True	True	True	True
12/29/2015	0.003609826	36098.25673	True	True	True	True
12/30/2015	0.00650153	65015.30349	True	True	True	True
1/4/2016	-0.018805017	-188050.1664	True	True	True	True
1/5/2016	0.008660143	86601.43115	True	True	True	True
1/6/2016	0.024739101	247391.0146	True	True	True	True
1/7/2016	-0.021195852	-211958.517	True	True	True	True
1/8/2016	0.001833506	18335.06112	True	True	True	True
1/11/2016	-0.023198604	-231986.0431	True	True	True	True

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1/12/2016	0.015777044	157770.4423	True	True	True	True
1/13/2016	0.009717093	97170.93204	True	True	True	True
1/14/2016	-0.012943524	-129435.2446	True	True	True	True
1/15/2016	0.000874895	8748.948969	True	True	True	True
1/18/2016	-0.01207996	-120799.5962	True	True	True	True
1/19/2016	0.008305877	83058.76888	True	True	True	True
1/20/2016	-0.016338069	-163380.6918	True	True	True	True
1/21/2016	-0.001751634	-17516.34488	True	True	True	True
1/22/2016	0.015165038	151650.378	True	True	True	True
1/25/2016	0.007992741	79927.41484	True	True	True	True
1/26/2016	-0.00077281	-7728.099544	True	True	True	True
1/27/2016	0.017131129	171311.2946	True	True	True	True
1/28/2016	0.004155095	41550.95166	True	True	True	True
1/29/2016	0.008193409	81934.09212	True	True	True	True
2/1/2016	-0.00269645	-26964.49781	True	True	True	True
2/2/2016	-0.012150106	-121501.0637	True	True	True	True
2/3/2016	0.010725436	107254.3625	True	True	True	True
2/4/2016	0.019072003	190720.0322	True	True	True	True
2/5/2016	0.03253671	325367.1035	True	True	True	True
2/9/2016	-0.010041663	-100416.6325	True	True	True	True
2/10/2016	-0.003085922	-30859.2234	True	True	True	True
2/11/2016	0.015350608	153506.0818	True	True	True	True
2/12/2016	-0.02117036	-211703.5967	True	True	True	True
2/15/2016	0.00550431	55043.09972	True	True	True	True
2/16/2016	0.002079964	20799.63962	True	True	True	True
2/17/2016	0.004711138	47111.38134	True	True	True	True
2/18/2016	0.004891751	48917.51001	True	True	True	True
2/19/2016	-0.0162835	-162835.0004	True	True	True	True
2/22/2016	0.001108649	11086.49003	True	True	True	True
2/23/2016	-0.013112665	-131126.6507	True	True	True	True
2/24/2016	-0.00435573	-43557.29829	True	True	True	True
2/25/2016	0.004996975	49969.7525	True	True	True	True
2/26/2016	0.020134752	201347.5203	True	True	True	True
2/29/2016	0.008197265	81972.64601	True	True	True	True
3/1/2016	0.010939228	109392.2834	True	True	True	True
3/2/2016	0.016930419	169304.1868	True	True	True	True
3/3/2016	-0.003992817	-39928.16755	True	True	True	True
3/4/2016	-0.004344845	-43448.45148	True	True	True	True
3/7/2016	-0.006068646	-60686.45752	True	True	True	True
3/8/2016	-0.003387453	-33874.52857	True	True	True	True
3/10/2016	0.001263943	12639.42727	True	True	True	True
3/11/2016	0.005882441	58824.41173	True	True	True	True
3/14/2016	0.018901056	189010.5594	True	True	True	True
3/15/2016	-0.011242947	-112429.4729	True	True	True	True
3/16/2016	0.005516349	55163.49469	True	True	True	True

<b>Date</b>	<b>Return</b>	<b>Return* 1000000</b>	<b>T-1 Hari</b>	<b>T-2 Hari</b>	<b>T-3 Hari</b>	<b>T-4 Hari</b>
3/17/2016	0.009730838	97308.38335	True	True	True	True
3/18/2016	0.001734617	17346.17311	True	True	True	True
3/21/2016	-0.001555038	-15550.37847	True	True	True	True
3/22/2016	-0.006109078	-61090.78196	True	True	True	True
3/23/2016	-0.010899474	-108994.7369	True	True	True	True
3/24/2016	-0.005816051	-58160.51031	True	True	True	True
3/28/2016	-0.010944864	-109448.6354	True	True	True	True
3/29/2016	-0.001657551	-16575.51084	True	True	True	True
3/30/2016	0.008752258	87522.5832	True	True	True	True
3/31/2016	0.003099712	30997.12498	True	True	True	True

**LAMPIRAN 11:** Tabel Chi-Kuadrat

<b>db</b>	<b>0.005</b>	<b>0.010</b>	<b>0.025</b>	<b>0.050</b>	<b>0.100</b>	<b>0.250</b>
<b>1</b>	7.879	6.635	5.024	3.841	2.706	1.323
<b>2</b>	10.597	9.210	7.378	5.991	4.605	2.773
<b>3</b>	12.838	11.345	9.348	7.815	6.251	4.108
<b>4</b>	14.860	13.277	11.143	9.488	7.779	5.385
<b>5</b>	16.750	15.086	12.833	11.070	9.236	6.626
<b>6</b>	18.548	16.812	14.449	12.592	10.645	7.841
<b>7</b>	20.278	18.475	16.013	14.067	12.017	9.037
<b>8</b>	21.955	20.090	17.535	15.507	13.362	10.219
<b>9</b>	23.589	21.666	19.023	16.919	14.684	11.389
<b>10</b>	25.188	23.209	20.483	18.307	15.987	12.549
<b>11</b>	26.757	24.725	21.920	19.675	17.275	13.701
<b>12</b>	28.300	26.217	23.337	21.026	18.549	14.845
<b>13</b>	29.819	27.688	24.736	22.362	19.812	15.984
<b>14</b>	31.319	29.141	26.119	23.685	21.064	17.117
<b>15</b>	32.801	30.578	27.488	24.996	22.307	18.245
<b>16</b>	34.267	32.000	28.845	26.296	23.542	19.369
<b>17</b>	35.718	33.409	30.191	27.587	24.769	20.489
<b>18</b>	37.156	34.805	31.526	28.869	25.989	21.605
<b>19</b>	38.582	36.191	32.852	30.144	27.204	22.718
<b>20</b>	39.997	37.566	34.170	31.410	28.412	23.828
<b>21</b>	41.401	38.932	35.479	32.671	29.615	24.935
<b>22</b>	42.796	40.289	36.781	33.924	30.813	26.039
<b>23</b>	44.181	41.638	38.076	35.172	32.007	27.141
<b>24</b>	45.559	42.980	39.364	36.415	33.196	28.241
<b>25</b>	46.928	44.314	40.646	37.652	34.382	29.339
<b>26</b>	48.290	45.642	41.923	38.885	35.563	30.435
<b>27</b>	49.645	46.963	43.195	40.113	36.741	31.528
<b>28</b>	50.993	48.278	44.461	41.337	37.916	32.620
<b>29</b>	52.336	49.588	45.722	42.557	39.087	33.711
<b>30</b>	53.672	50.892	46.979	43.773	40.256	34.800
<b>31</b>	55.003	52.191	48.232	44.985	41.422	35.887
<b>32</b>	56.328	53.486	49.480	46.194	42.585	36.973
<b>33</b>	57.648	54.776	50.725	47.400	43.745	38.058
<b>34</b>	58.964	56.061	51.966	48.602	44.903	39.141
<b>35</b>	60.275	57.342	53.203	49.802	46.059	40.223
<b>36</b>	61.581	58.619	54.437	50.998	47.212	41.304
<b>37</b>	62.883	59.893	55.668	52.192	48.363	42.383
<b>38</b>	64.181	61.162	56.896	53.384	49.513	43.462
<b>39</b>	65.476	62.428	58.120	54.572	50.660	44.539
<b>40</b>	66.766	63.691	59.342	55.758	51.805	45.616
<b>41</b>	68.053	64.950	60.561	56.942	52.949	46.692
<b>42</b>	69.336	66.206	61.777	58.124	54.090	47.766
<b>43</b>	70.616	67.459	62.990	59.304	55.230	48.840
<b>44</b>	71.893	68.710	64.201	60.481	56.369	49.913

<b>db</b>	<b>0.005</b>	<b>0.010</b>	<b>0.025</b>	<b>0.050</b>	<b>0.100</b>	<b>0.250</b>
<b>45</b>	73.166	69.957	65.410	61.656	57.505	50.985
<b>46</b>	74.437	71.201	66.617	62.830	58.641	52.056
<b>47</b>	75.704	72.443	67.821	64.001	59.774	53.127
<b>48</b>	76.969	73.683	69.023	65.171	60.907	54.196
<b>49</b>	78.231	74.919	70.222	66.339	62.038	55.265
<b>50</b>	79.490	76.154	71.420	67.505	63.167	56.334
<b>51</b>	80.747	77.386	72.616	68.669	64.295	57.401
<b>52</b>	82.001	78.616	73.810	69.832	65.422	58.468
<b>53</b>	83.253	79.843	75.002	70.993	66.548	59.534
<b>54</b>	84.502	81.069	76.192	72.153	67.673	60.600
<b>55</b>	85.749	82.292	77.380	73.311	68.796	61.665
<b>56</b>	86.994	83.513	78.567	74.468	69.919	62.729
<b>57</b>	88.236	84.733	79.752	75.624	71.040	63.793
<b>58</b>	89.477	85.950	80.936	76.778	72.160	64.857
<b>59</b>	90.715	87.166	82.117	77.931	73.279	65.919
<b>60</b>	91.952	88.379	83.298	79.082	74.397	66.981
<b>61</b>	93.186	89.591	84.476	80.232	75.514	68.043
<b>62</b>	94.419	90.802	85.654	81.381	76.630	69.104
<b>63</b>	95.649	92.010	86.830	82.529	77.745	70.165
<b>64</b>	96.878	93.217	88.004	83.675	78.860	71.225
<b>65</b>	98.105	94.422	89.177	84.821	79.973	72.285
<b>66</b>	99.330	95.626	90.349	85.965	81.085	73.344
<b>67</b>	100.554	96.828	91.519	87.108	82.197	74.403
<b>68</b>	101.776	98.028	92.689	88.250	83.308	75.461
<b>69</b>	102.996	99.228	93.856	89.391	84.418	76.519
<b>70</b>	104.215	100.425	95.023	90.531	85.527	77.577
<b>71</b>	105.432	101.621	96.189	91.670	86.635	78.634
<b>72</b>	106.648	102.816	97.353	92.808	87.743	79.690
<b>73</b>	107.862	104.010	98.516	93.945	88.850	80.747
<b>74</b>	109.074	105.202	99.678	95.081	89.956	81.803
<b>75</b>	110.286	106.393	100.839	96.217	91.061	82.858
<b>76</b>	111.495	107.583	101.999	97.351	92.166	83.913
<b>77</b>	112.704	108.771	103.158	98.484	93.270	84.968
<b>78</b>	113.911	109.958	104.316	99.617	94.374	86.022
<b>79</b>	115.117	111.144	105.473	100.749	95.476	87.077
<b>80</b>	116.321	112.329	106.629	101.879	96.578	88.130
<b>81</b>	117.524	113.512	107.783	103.010	97.680	89.184
<b>82</b>	118.726	114.695	108.937	104.139	98.780	90.237
<b>83</b>	119.927	115.876	110.090	105.267	99.880	91.289
<b>84</b>	121.126	117.057	111.242	106.395	100.980	92.342
<b>85</b>	122.325	118.236	112.393	107.522	102.079	93.394
<b>86</b>	123.522	119.414	113.544	108.648	103.177	94.446
<b>87</b>	124.718	120.591	114.693	109.773	104.275	95.497
<b>88</b>	125.913	121.767	115.841	110.898	105.372	96.548
<b>89</b>	127.106	122.942	116.989	112.022	106.469	97.599
<b>90</b>	128.299	124.116	118.136	113.145	107.565	98.650

<b>db</b>	<b>0.005</b>	<b>0.010</b>	<b>0.025</b>	<b>0.050</b>	<b>0.100</b>	<b>0.250</b>
<b>91</b>	129.491	125.289	119.282	114.268	108.661	99.700
<b>92</b>	130.681	126.462	120.427	115.390	109.756	100.750
<b>93</b>	131.871	127.633	121.571	116.511	110.850	101.800
<b>94</b>	133.059	128.803	122.715	117.632	111.944	102.850
<b>95</b>	134.247	129.973	123.858	118.752	113.038	103.899
<b>96</b>	135.433	131.141	125.000	119.871	114.131	104.948
<b>97</b>	136.619	132.309	126.141	120.990	115.223	105.997
<b>98</b>	137.803	133.476	127.282	122.108	116.315	107.045
<b>99</b>	138.987	134.642	128.422	123.225	117.407	108.093
<b>100</b>	140.169	135.807	129.561	124.342	118.498	109.141
<b>101</b>	141.351	136.971	130.700	125.458	119.589	110.189
<b>102</b>	142.532	138.134	131.838	126.574	120.679	111.236
<b>103</b>	143.712	139.297	132.975	127.689	121.769	112.284
<b>104</b>	144.891	140.459	134.111	128.804	122.858	113.331
<b>105</b>	146.070	141.620	135.247	129.918	123.947	114.378
<b>106</b>	147.247	142.780	136.382	131.031	125.035	115.424
<b>107</b>	148.424	143.940	137.517	132.144	126.123	116.471
<b>108</b>	149.599	145.099	138.651	133.257	127.211	117.517
<b>109</b>	150.774	146.257	139.784	134.369	128.298	118.563
<b>110</b>	151.948	147.414	140.917	135.480	129.385	119.608
<b>111</b>	153.122	148.571	142.049	136.591	130.472	120.654
<b>112</b>	154.294	149.727	143.180	137.701	131.558	121.699
<b>113</b>	155.466	150.882	144.311	138.811	132.643	122.744
<b>114</b>	156.637	152.037	145.441	139.921	133.729	123.789
<b>115</b>	157.808	153.191	146.571	141.030	134.813	124.834
<b>116</b>	158.977	154.344	147.700	142.138	135.898	125.878
<b>117</b>	160.146	155.496	148.829	143.246	136.982	126.923
<b>118</b>	161.314	156.648	149.957	144.354	138.066	127.967
<b>119</b>	162.481	157.800	151.084	145.461	139.149	129.011
<b>120</b>	163.648	158.950	152.211	146.567	140.233	130.055
<b>121</b>	164.814	160.100	153.338	147.674	141.315	131.098
<b>122</b>	165.980	161.250	154.464	148.779	142.398	132.142
<b>123</b>	167.144	162.398	155.589	149.885	143.480	133.185
<b>124</b>	168.308	163.546	156.714	150.989	144.562	134.228
<b>125</b>	169.471	164.694	157.839	152.094	145.643	135.271
<b>126</b>	170.634	165.841	158.962	153.198	146.724	136.313
<b>127</b>	171.796	166.987	160.086	154.302	147.805	137.356
<b>128</b>	172.957	168.133	161.209	155.405	148.885	138.398
<b>129</b>	174.118	169.278	162.331	156.508	149.965	139.440
<b>130</b>	175.278	170.423	163.453	157.610	151.045	140.482
<b>131</b>	176.438	171.567	164.575	158.712	152.125	141.524
<b>132</b>	177.597	172.711	165.696	159.814	153.204	142.566
<b>133</b>	178.755	173.854	166.816	160.915	154.283	143.608
<b>134</b>	179.913	174.996	167.936	162.016	155.361	144.649
<b>135</b>	181.070	176.138	169.056	163.116	156.440	145.690
<b>136</b>	182.226	177.280	170.175	164.216	157.518	146.731

<b>db</b>	<b>0.005</b>	<b>0.010</b>	<b>0.025</b>	<b>0.050</b>	<b>0.100</b>	<b>0.250</b>
<b>137</b>	183.382	178.421	171.294	165.316	158.595	147.772
<b>138</b>	184.538	179.561	172.412	166.415	159.673	148.813
<b>139</b>	185.693	180.701	173.530	167.514	160.750	149.854
<b>140</b>	186.847	181.840	174.648	168.613	161.827	150.894
<b>141</b>	188.001	182.979	175.765	169.711	162.904	151.934
<b>142</b>	189.154	184.118	176.882	170.809	163.980	152.975
<b>143</b>	190.306	185.256	177.998	171.907	165.056	154.015
<b>144</b>	191.458	186.393	179.114	173.004	166.132	155.055
<b>145</b>	192.610	187.530	180.229	174.101	167.207	156.094
<b>146</b>	193.761	188.666	181.344	175.198	168.283	157.134
<b>147</b>	194.912	189.802	182.459	176.294	169.358	158.174
<b>148</b>	196.062	190.938	183.573	177.390	170.432	159.213
<b>149</b>	197.211	192.073	184.687	178.485	171.507	160.252
<b>150</b>	198.360	193.208	185.800	179.581	172.581	161.291
<b>151</b>	199.509	194.342	186.914	180.676	173.655	162.330
<b>152</b>	200.657	195.476	188.026	181.770	174.729	163.369
<b>153</b>	201.804	196.609	189.139	182.865	175.803	164.408
<b>154</b>	202.951	197.742	190.251	183.959	176.876	165.446
<b>155</b>	204.098	198.874	191.362	185.052	177.949	166.485
<b>156</b>	205.244	200.006	192.474	186.146	179.022	167.523
<b>157</b>	206.390	201.138	193.584	187.239	180.094	168.561
<b>158</b>	207.535	202.269	194.695	188.332	181.167	169.599
<b>159</b>	208.680	203.400	195.805	189.424	182.239	170.637
<b>160</b>	209.824	204.530	196.915	190.516	183.311	171.675
<b>161</b>	210.968	205.660	198.025	191.608	184.382	172.713
<b>162</b>	212.111	206.790	199.134	192.700	185.454	173.751
<b>163</b>	213.254	207.919	200.243	193.791	186.525	174.788
<b>164</b>	214.396	209.047	201.351	194.883	187.596	175.825
<b>165</b>	215.539	210.176	202.459	195.973	188.667	176.863
<b>166</b>	216.680	211.304	203.567	197.064	189.737	177.900
<b>167</b>	217.821	212.431	204.675	198.154	190.808	178.937
<b>168</b>	218.962	213.558	205.782	199.244	191.878	179.974
<b>169</b>	220.102	214.685	206.889	200.334	192.948	181.011
<b>170</b>	221.242	215.812	207.995	201.423	194.017	182.047
<b>171</b>	222.382	216.938	209.102	202.513	195.087	183.084
<b>172</b>	223.521	218.063	210.208	203.602	196.156	184.120
<b>173</b>	224.660	219.189	211.313	204.690	197.225	185.157
<b>174</b>	225.798	220.314	212.419	205.779	198.294	186.193
<b>175</b>	226.936	221.438	213.524	206.867	199.363	187.229
<b>176</b>	228.074	222.563	214.628	207.955	200.432	188.265
<b>177</b>	229.211	223.687	215.733	209.042	201.500	189.301
<b>178</b>	230.347	224.810	216.837	210.130	202.568	190.337
<b>179</b>	231.484	225.933	217.941	211.217	203.636	191.373
<b>180</b>	232.620	227.056	219.044	212.304	204.704	192.409
<b>181</b>	233.755	228.179	220.148	213.391	205.771	193.444
<b>182</b>	234.891	229.301	221.251	214.477	206.839	194.480



<b>db</b>	<b>0.005</b>	<b>0.010</b>	<b>0.025</b>	<b>0.050</b>	<b>0.100</b>	<b>0.250</b>
<b>183</b>	236.026	230.423	222.353	215.563	207.906	195.515
<b>184</b>	237.160	231.544	223.456	216.649	208.973	196.550
<b>185</b>	238.294	232.665	224.558	217.735	210.040	197.586
<b>186</b>	239.428	233.786	225.660	218.820	211.106	198.621
<b>187</b>	240.561	234.907	226.761	219.906	212.173	199.656
<b>188</b>	241.694	236.027	227.863	220.991	213.239	200.690
<b>189</b>	242.827	237.147	228.964	222.076	214.305	201.725
<b>190</b>	243.959	238.266	230.064	223.160	215.371	202.760
<b>191</b>	245.091	239.386	231.165	224.245	216.437	203.795
<b>192</b>	246.223	240.505	232.265	225.329	217.502	204.829
<b>193</b>	247.354	241.623	233.365	226.413	218.568	205.864
<b>194</b>	248.485	242.742	234.465	227.496	219.633	206.898
<b>195</b>	249.616	243.860	235.564	228.580	220.698	207.932
<b>196</b>	250.746	244.977	236.664	229.663	221.763	208.966
<b>197</b>	251.876	246.095	237.763	230.746	222.828	210.000
<b>198</b>	253.006	247.212	238.861	231.829	223.892	211.034
<b>199</b>	254.135	248.329	239.960	232.912	224.957	212.068
<b>200</b>	255.264	249.445	241.058	233.994	226.021	213.102
<b>201</b>	256.393	250.561	242.156	235.077	227.085	214.136
<b>202</b>	257.521	251.677	243.254	236.159	228.149	215.170
<b>203</b>	258.649	252.793	244.351	237.240	229.213	216.203
<b>204</b>	259.777	253.908	245.448	238.322	230.276	217.237
<b>205</b>	260.904	255.023	246.545	239.403	231.340	218.270
<b>206</b>	262.031	256.138	247.642	240.485	232.403	219.303
<b>207</b>	263.158	257.253	248.739	241.566	233.466	220.337
<b>208</b>	264.285	258.367	249.835	242.647	234.529	221.370
<b>209</b>	265.411	259.481	250.931	243.727	235.592	222.403
<b>210</b>	266.537	260.595	252.027	244.808	236.655	223.436
<b>211</b>	267.662	261.708	253.122	245.888	237.717	224.469
<b>212</b>	268.788	262.821	254.218	246.968	238.780	225.502
<b>213</b>	269.912	263.934	255.313	248.048	239.842	226.534
<b>214</b>	271.037	265.047	256.408	249.128	240.904	227.567
<b>215</b>	272.162	266.159	257.503	250.207	241.966	228.600
<b>216</b>	273.286	267.271	258.597	251.286	243.028	229.632
<b>217</b>	274.409	268.383	259.691	252.365	244.090	230.665
<b>218</b>	275.533	269.495	260.785	253.444	245.151	231.697
<b>219</b>	276.656	270.606	261.879	254.523	246.213	232.729
<b>220</b>	277.779	271.717	262.973	255.602	247.274	233.762
<b>221</b>	278.902	272.828	264.066	256.680	248.335	234.794
<b>222</b>	280.024	273.939	265.159	257.758	249.396	235.826
<b>223</b>	281.146	275.049	266.252	258.837	250.457	236.858
<b>224</b>	282.268	276.159	267.345	259.914	251.517	237.890
<b>225</b>	283.390	277.269	268.438	260.992	252.578	238.922
<b>226</b>	284.511	278.379	269.530	262.070	253.638	239.954
<b>227</b>	285.632	279.488	270.622	263.147	254.699	240.985
<b>228</b>	286.753	280.597	271.714	264.224	255.759	242.017

<b>db</b>	<b>0.005</b>	<b>0.010</b>	<b>0.025</b>	<b>0.050</b>	<b>0.100</b>	<b>0.250</b>
<b>229</b>	287.874	281.706	272.806	265.301	256.819	243.049
<b>230</b>	288.994	282.814	273.898	266.378	257.879	244.080
<b>231</b>	290.114	283.923	274.989	267.455	258.939	245.112
<b>232</b>	291.234	285.031	276.080	268.531	259.998	246.143
<b>233</b>	292.353	286.139	277.171	269.608	261.058	247.174
<b>234</b>	293.472	287.247	278.262	270.684	262.117	248.206
<b>235</b>	294.591	288.354	279.352	271.760	263.176	249.237
<b>236</b>	295.710	289.461	280.443	272.836	264.235	250.268
<b>237</b>	296.828	290.568	281.533	273.911	265.294	251.299
<b>238</b>	297.947	291.675	282.623	274.987	266.353	252.330
<b>239</b>	299.065	292.782	283.713	276.062	267.412	253.361
<b>240</b>	300.182	293.888	284.802	277.138	268.471	254.392
<b>241</b>	301.300	294.994	285.892	278.213	269.529	255.423
<b>242</b>	302.417	296.100	286.981	279.288	270.588	256.453
<b>243</b>	303.534	297.206	288.070	280.362	271.646	257.484
<b>244</b>	304.651	298.311	289.159	281.437	272.704	258.515
<b>245</b>	305.767	299.417	290.248	282.511	273.762	259.545
<b>246</b>	306.883	300.522	291.336	283.586	274.820	260.576
<b>247</b>	307.999	301.626	292.425	284.660	275.878	261.606
<b>248</b>	309.115	302.731	293.513	285.734	276.935	262.636
<b>249</b>	310.231	303.835	294.601	286.808	277.993	263.667
<b>250</b>	311.346	304.940	295.689	287.882	279.050	264.697
<b>251</b>	312.461	306.044	296.776	288.955	280.108	265.727
<b>252</b>	313.576	307.147	297.864	290.028	281.165	266.757
<b>253</b>	314.691	308.251	298.951	291.102	282.222	267.787
<b>254</b>	315.805	309.354	300.038	292.175	283.279	268.817
<b>255</b>	316.919	310.457	301.125	293.248	284.336	269.847
<b>256</b>	318.033	311.560	302.212	294.321	285.393	270.877
<b>257</b>	319.147	312.663	303.298	295.393	286.449	271.907
<b>258</b>	320.261	313.766	304.385	296.466	287.506	272.937
<b>259</b>	321.374	314.868	305.471	297.538	288.562	273.966
<b>260</b>	322.487	315.970	306.557	298.611	289.619	274.996
<b>261</b>	323.600	317.072	307.643	299.683	290.675	276.026
<b>262</b>	324.713	318.174	308.729	300.755	291.731	277.055
<b>263</b>	325.825	319.275	309.814	301.827	292.787	278.085
<b>264</b>	326.937	320.377	310.900	302.898	293.843	279.114
<b>265</b>	328.049	321.478	311.985	303.970	294.899	280.143
<b>266</b>	329.161	322.579	313.070	305.041	295.954	281.173
<b>267</b>	330.273	323.680	314.155	306.113	297.010	282.202
<b>268</b>	331.384	324.780	315.240	307.184	298.065	283.231
<b>269</b>	332.495	325.881	316.325	308.255	299.121	284.260
<b>270</b>	333.606	326.981	317.409	309.326	300.176	285.289
<b>271</b>	334.717	328.081	318.494	310.397	301.231	286.318
<b>272</b>	335.827	329.181	319.578	311.467	302.286	287.347
<b>273</b>	336.938	330.281	320.662	312.538	303.341	288.376
<b>274</b>	338.048	331.380	321.746	313.608	304.396	289.405

<b>db</b>	<b>0.005</b>	<b>0.010</b>	<b>0.025</b>	<b>0.050</b>	<b>0.100</b>	<b>0.250</b>
<b>275</b>	339.158	332.480	322.829	314.678	305.451	290.434
<b>276</b>	340.268	333.579	323.913	315.749	306.505	291.463
<b>277</b>	341.377	334.678	324.996	316.819	307.560	292.492
<b>278</b>	342.487	335.776	326.079	317.888	308.614	293.520
<b>279</b>	343.596	336.875	327.163	318.958	309.669	294.549
<b>280</b>	344.705	337.974	328.246	320.028	310.723	295.577
<b>281</b>	345.813	339.072	329.328	321.097	311.777	296.606
<b>282</b>	346.922	340.170	330.411	322.167	312.831	297.634
<b>283</b>	348.030	341.268	331.493	323.236	313.885	298.663
<b>284</b>	349.139	342.365	332.576	324.305	314.939	299.691
<b>285</b>	350.247	343.463	333.658	325.374	315.993	300.720
<b>286</b>	351.354	344.560	334.740	326.443	317.047	301.748
<b>287</b>	352.462	345.658	335.822	327.512	318.100	302.776
<b>288</b>	353.569	346.755	336.904	328.580	319.154	303.804
<b>289</b>	354.677	347.852	337.986	329.649	320.207	304.832
<b>290</b>	355.784	348.948	339.067	330.717	321.260	305.860
<b>291</b>	356.891	350.045	340.148	331.786	322.314	306.888
<b>292</b>	357.997	351.141	341.230	332.854	323.367	307.916
<b>293</b>	359.104	352.237	342.311	333.922	324.420	308.944
<b>294</b>	360.210	353.334	343.392	334.990	325.473	309.972
<b>295</b>	361.316	354.429	344.472	336.058	326.526	311.000
<b>296</b>	362.422	355.525	345.553	337.125	327.578	312.028
<b>297</b>	363.528	356.621	346.634	338.193	328.631	313.055
<b>298</b>	364.634	357.716	347.714	339.260	329.684	314.083
<b>299</b>	365.739	358.811	348.794	340.328	330.736	315.111
<b>300</b>	366.844	359.906	349.874	341.395	331.789	316.138
<b>301</b>	367.950	361.001	350.954	342.462	332.841	317.166
<b>302</b>	369.054	362.096	352.034	343.529	333.893	318.193
<b>303</b>	370.159	363.191	353.114	344.596	334.945	319.221
<b>304</b>	371.264	364.285	354.194	345.663	335.997	320.248
<b>305</b>	372.368	365.379	355.273	346.730	337.049	321.276
<b>306</b>	373.472	366.474	356.352	347.796	338.101	322.303
<b>307</b>	374.576	367.568	357.432	348.863	339.153	323.330
<b>308</b>	375.680	368.661	358.511	349.929	340.205	324.357
<b>309</b>	376.784	369.755	359.590	350.995	341.256	325.385
<b>310</b>	377.888	370.849	360.669	352.062	342.308	326.412
<b>311</b>	378.991	371.942	361.747	353.128	343.359	327.439
<b>312</b>	380.094	373.035	362.826	354.194	344.411	328.466
<b>313</b>	381.197	374.128	363.904	355.260	345.462	329.493
<b>314</b>	382.300	375.221	364.983	356.325	346.513	330.520
<b>315</b>	383.403	376.314	366.061	357.391	347.564	331.547
<b>316</b>	384.505	377.407	367.139	358.456	348.616	332.574
<b>317</b>	385.608	378.499	368.217	359.522	349.667	333.601
<b>318</b>	386.710	379.592	369.295	360.587	350.717	334.627
<b>319</b>	387.812	380.684	370.372	361.652	351.768	335.654
<b>320</b>	388.914	381.776	371.450	362.718	352.819	336.681

<b>db</b>	<b>0.005</b>	<b>0.010</b>	<b>0.025</b>	<b>0.050</b>	<b>0.100</b>	<b>0.250</b>
<b>321</b>	390.016	382.868	372.527	363.783	353.870	337.707
<b>322</b>	391.117	383.960	373.605	364.847	354.920	338.734
<b>323</b>	392.219	385.051	374.682	365.912	355.971	339.761
<b>324</b>	393.320	386.143	375.759	366.977	357.021	340.787
<b>325</b>	394.421	387.234	376.836	368.042	358.072	341.814
<b>326</b>	395.522	388.325	377.913	369.106	359.122	342.840
<b>327</b>	396.623	389.416	378.990	370.171	360.172	343.867
<b>328</b>	397.724	390.507	380.066	371.235	361.222	344.893
<b>329</b>	398.824	391.598	381.143	372.299	362.272	345.919
<b>330</b>	399.924	392.689	382.219	373.363	363.322	346.946
<b>331</b>	401.025	393.779	383.295	374.427	364.372	347.972
<b>332</b>	402.125	394.870	384.372	375.491	365.422	348.998
<b>333</b>	403.225	395.960	385.448	376.555	366.472	350.024
<b>334</b>	404.324	397.050	386.524	377.619	367.521	351.050
<b>335</b>	405.424	398.140	387.599	378.682	368.571	352.077
<b>336</b>	406.523	399.230	388.675	379.746	369.620	353.103
<b>337</b>	407.623	400.319	389.751	380.809	370.670	354.129
<b>338</b>	408.722	401.409	390.826	381.873	371.719	355.155
<b>339</b>	409.821	402.498	391.902	382.936	372.768	356.181
<b>340</b>	410.920	403.588	392.977	383.999	373.818	357.207
<b>341</b>	412.018	404.677	394.052	385.062	374.867	358.232
<b>342</b>	413.117	405.766	395.127	386.125	375.916	359.258
<b>343</b>	414.215	406.855	396.202	387.188	376.965	360.284
<b>344</b>	415.314	407.944	397.277	388.251	378.014	361.310
<b>345</b>	416.412	409.032	398.351	389.314	379.063	362.336
<b>346</b>	417.510	410.121	399.426	390.376	380.112	363.361
<b>347</b>	418.608	411.209	400.500	391.439	381.160	364.387
<b>348</b>	419.705	412.297	401.575	392.501	382.209	365.412
<b>349</b>	420.803	413.386	402.649	393.564	383.258	366.438
<b>350</b>	421.900	414.474	403.723	394.626	384.306	367.464
<b>351</b>	422.998	415.562	404.797	395.688	385.354	368.489
<b>352</b>	424.095	416.649	405.871	396.750	386.403	369.515
<b>353</b>	425.192	417.737	406.945	397.812	387.451	370.540
<b>354</b>	426.289	418.824	408.019	398.874	388.499	371.565
<b>355</b>	427.386	419.912	409.093	399.936	389.548	372.591
<b>356</b>	428.482	420.999	410.166	400.997	390.596	373.616
<b>357</b>	429.579	422.086	411.240	402.059	391.644	374.641
<b>358</b>	430.675	423.173	412.313	403.121	392.692	375.667
<b>359</b>	431.771	424.260	413.386	404.182	393.740	376.692
<b>360</b>	432.867	425.347	414.459	405.244	394.787	377.717
<b>361</b>	433.963	426.434	415.532	406.305	395.835	378.742
<b>362</b>	435.059	427.520	416.605	407.366	396.883	379.767
<b>363</b>	436.155	428.607	417.678	408.427	397.931	380.792
<b>364</b>	437.250	429.693	418.751	409.488	398.978	381.817
<b>365</b>	438.346	430.779	419.823	410.549	400.026	382.842
<b>366</b>	439.441	431.865	420.896	411.610	401.073	383.867

<b>db</b>	<b>0.005</b>	<b>0.010</b>	<b>0.025</b>	<b>0.050</b>	<b>0.100</b>	<b>0.250</b>
<b>367</b>	440.536	432.951	421.968	412.671	402.120	384.892
<b>368</b>	441.631	434.037	423.041	413.732	403.168	385.917
<b>369</b>	442.726	435.123	424.113	414.792	404.215	386.942
<b>370</b>	443.821	436.208	425.185	415.853	405.262	387.967
<b>371</b>	444.915	437.294	426.257	416.913	406.309	388.992
<b>372</b>	446.010	438.379	427.329	417.974	407.356	390.016
<b>373</b>	447.104	439.464	428.401	419.034	408.403	391.041
<b>374</b>	448.199	440.550	429.473	420.094	409.450	392.066
<b>375</b>	449.293	441.635	430.544	421.154	410.497	393.091
<b>376</b>	450.387	442.719	431.616	422.214	411.544	394.115
<b>377</b>	451.481	443.804	432.687	423.274	412.591	395.140
<b>378</b>	452.574	444.889	433.759	424.334	413.637	396.164
<b>379</b>	453.668	445.974	434.830	425.394	414.684	397.189
<b>380</b>	454.761	447.058	435.901	426.454	415.730	398.213
<b>381</b>	455.855	448.142	436.972	427.513	416.777	399.238
<b>382</b>	456.948	449.227	438.043	428.573	417.823	400.262
<b>383</b>	458.041	450.311	439.114	429.632	418.870	401.287
<b>384</b>	459.134	451.395	440.185	430.692	419.916	402.311
<b>385</b>	460.227	452.479	441.256	431.751	420.962	403.335
<b>386</b>	461.320	453.562	442.326	432.811	422.009	404.360
<b>387</b>	462.413	454.646	443.397	433.870	423.055	405.384
<b>388</b>	463.505	455.730	444.467	434.929	424.101	406.408
<b>389</b>	464.598	456.813	445.538	435.988	425.147	407.432
<b>390</b>	465.690	457.897	446.608	437.047	426.193	408.457
<b>391</b>	466.782	458.980	447.678	438.106	427.239	409.481
<b>392</b>	467.874	460.063	448.748	439.165	428.284	410.505
<b>393</b>	468.966	461.146	449.818	440.223	429.330	411.529
<b>394</b>	470.058	462.229	450.888	441.282	430.376	412.553
<b>395</b>	471.150	463.312	451.958	442.341	431.422	413.577
<b>396</b>	472.241	464.395	453.027	443.399	432.467	414.601
<b>397</b>	473.333	465.477	454.097	444.458	433.513	415.625
<b>398</b>	474.424	466.560	455.167	445.516	434.558	416.649
<b>399</b>	475.515	467.642	456.236	446.574	435.604	417.673
<b>400</b>	476.606	468.724	457.305	447.632	436.649	418.697
<b>401</b>	477.697	469.807	458.375	448.691	437.694	419.721
<b>402</b>	478.788	470.889	459.444	449.749	438.740	420.745
<b>403</b>	479.879	471.971	460.513	450.807	439.785	421.768
<b>404</b>	480.970	473.053	461.582	451.865	440.830	422.792
<b>405</b>	482.060	474.135	462.651	452.923	441.875	423.816
<b>406</b>	483.151	475.216	463.720	453.980	442.920	424.840
<b>407</b>	484.241	476.298	464.789	455.038	443.965	425.863
<b>408</b>	485.331	477.379	465.857	456.096	445.010	426.887
<b>409</b>	486.422	478.461	466.926	457.153	446.055	427.910
<b>410</b>	487.512	479.542	467.994	458.211	447.100	428.934
<b>411</b>	488.601	480.623	469.063	459.268	448.144	429.958
<b>412</b>	489.691	481.704	470.131	460.326	449.189	430.981

<b>db</b>	<b>0.005</b>	<b>0.010</b>	<b>0.025</b>	<b>0.050</b>	<b>0.100</b>	<b>0.250</b>
<b>413</b>	490.781	482.785	471.200	461.383	450.234	432.005
<b>414</b>	491.871	483.866	472.268	462.440	451.278	433.028
<b>415</b>	492.960	484.947	473.336	463.497	452.323	434.052
<b>416</b>	494.049	486.028	474.404	464.554	453.367	435.075
<b>417</b>	495.139	487.109	475.472	465.611	454.412	436.098
<b>418</b>	496.228	488.189	476.540	466.668	455.456	437.122
<b>419</b>	497.317	489.269	477.607	467.725	456.501	438.145
<b>420</b>	498.406	490.350	478.675	468.782	457.545	439.168
<b>421</b>	499.495	491.430	479.743	469.839	458.589	440.192
<b>422</b>	500.583	492.510	480.810	470.895	459.633	441.215
<b>423</b>	501.672	493.590	481.878	471.952	460.677	442.238
<b>424</b>	502.760	494.670	482.945	473.009	461.721	443.261
<b>425</b>	503.849	495.750	484.012	474.065	462.765	444.285
<b>426</b>	504.937	496.830	485.080	475.122	463.809	445.308
<b>427</b>	506.025	497.910	486.147	476.178	464.853	446.331
<b>428</b>	507.113	498.989	487.214	477.234	465.897	447.354
<b>429</b>	508.201	500.069	488.281	478.290	466.941	448.377
<b>430</b>	509.289	501.148	489.348	479.347	467.985	449.400
<b>431</b>	510.377	502.227	490.414	480.403	469.028	450.423
<b>432</b>	511.465	503.306	491.481	481.459	470.072	451.446
<b>433</b>	512.552	504.386	492.548	482.515	471.116	452.469
<b>434</b>	513.640	505.465	493.614	483.571	472.159	453.492
<b>435</b>	514.727	506.544	494.681	484.626	473.203	454.515
<b>436</b>	515.815	507.622	495.747	485.682	474.246	455.538
<b>437</b>	516.902	508.701	496.814	486.738	475.290	456.560
<b>438</b>	517.989	509.780	497.880	487.793	476.333	457.583
<b>439</b>	519.076	510.858	498.946	488.849	477.376	458.606
<b>440</b>	520.163	511.937	500.012	489.905	478.419	459.629
<b>441</b>	521.250	513.015	501.079	490.960	479.463	460.652
<b>442</b>	522.336	514.094	502.144	492.015	480.506	461.674
<b>443</b>	523.423	515.172	503.210	493.071	481.549	462.697
<b>444</b>	524.509	516.250	504.276	494.126	482.592	463.720
<b>445</b>	525.596	517.328	505.342	495.181	483.635	464.742
<b>446</b>	526.682	518.406	506.408	496.236	484.678	465.765
<b>447</b>	527.768	519.484	507.473	497.291	485.721	466.787
<b>448</b>	528.854	520.562	508.539	498.346	486.764	467.810
<b>449</b>	529.940	521.639	509.604	499.401	487.807	468.833
<b>450</b>	531.026	522.717	510.670	500.456	488.849	469.855
<b>451</b>	532.112	523.794	511.735	501.511	489.892	470.878
<b>452</b>	533.198	524.872	512.800	502.566	490.935	471.900
<b>453</b>	534.283	525.949	513.865	503.621	491.977	472.922
<b>454</b>	535.369	527.026	514.931	504.675	493.020	473.945
<b>455</b>	536.454	528.104	515.996	505.730	494.062	474.967
<b>456</b>	537.540	529.181	517.061	506.784	495.105	475.990
<b>457</b>	538.625	530.258	518.125	507.839	496.147	477.012
<b>458</b>	539.710	531.335	519.190	508.893	497.190	478.034

<b>db</b>	<b>0.005</b>	<b>0.010</b>	<b>0.025</b>	<b>0.050</b>	<b>0.100</b>	<b>0.250</b>
<b>459</b>	540.795	532.411	520.255	509.947	498.232	479.057
<b>460</b>	541.880	533.488	521.320	511.002	499.274	480.079
<b>461</b>	542.965	534.565	522.384	512.056	500.317	481.101
<b>462</b>	544.050	535.641	523.449	513.110	501.359	482.123
<b>463</b>	545.135	536.718	524.513	514.164	502.401	483.146
<b>464</b>	546.219	537.794	525.578	515.218	503.443	484.168
<b>465</b>	547.304	538.871	526.642	516.272	504.485	485.190
<b>466</b>	548.388	539.947	527.706	517.326	505.527	486.212
<b>467</b>	549.473	541.023	528.771	518.380	506.569	487.234
<b>468</b>	550.557	542.099	529.835	519.434	507.611	488.256
<b>469</b>	551.641	543.175	530.899	520.488	508.653	489.278
<b>470</b>	552.725	544.251	531.963	521.541	509.695	490.300
<b>471</b>	553.809	545.327	533.027	522.595	510.737	491.322
<b>472</b>	554.893	546.403	534.090	523.649	511.779	492.344
<b>473</b>	555.977	547.479	535.154	524.702	512.820	493.366
<b>474</b>	557.060	548.554	536.218	525.756	513.862	494.388
<b>475</b>	558.144	549.630	537.282	526.809	514.904	495.410
<b>476</b>	559.228	550.705	538.345	527.862	515.945	496.432
<b>477</b>	560.311	551.781	539.409	528.916	516.987	497.454
<b>478</b>	561.394	552.856	540.472	529.969	518.028	498.476
<b>479</b>	562.478	553.931	541.536	531.022	519.070	499.497
<b>480</b>	563.561	555.006	542.599	532.075	520.111	500.519
<b>481</b>	564.644	556.081	543.662	533.128	521.152	501.541
<b>482</b>	565.727	557.156	544.725	534.181	522.194	502.563
<b>483</b>	566.810	558.231	545.788	535.234	523.235	503.584
<b>484</b>	567.893	559.306	546.851	536.287	524.276	504.606
<b>485</b>	568.975	560.381	547.914	537.340	525.317	505.628
<b>486</b>	570.058	561.455	548.977	538.393	526.359	506.650
<b>487</b>	571.141	562.530	550.040	539.446	527.400	507.671
<b>488</b>	572.223	563.604	551.103	540.499	528.441	508.693
<b>489</b>	573.306	564.679	552.166	541.551	529.482	509.714
<b>490</b>	574.388	565.753	553.228	542.604	530.523	510.736
<b>491</b>	575.470	566.828	554.291	543.656	531.564	511.757
<b>492</b>	576.552	567.902	555.354	544.709	532.605	512.779
<b>493</b>	577.634	568.976	556.416	545.761	533.645	513.801
<b>494</b>	578.716	570.050	557.478	546.814	534.686	514.822
<b>495</b>	579.798	571.124	558.541	547.866	535.727	515.843
<b>496</b>	580.880	572.198	559.603	548.918	536.768	516.865
<b>497</b>	581.962	573.272	560.665	549.970	537.808	517.886
<b>498</b>	583.044	574.346	561.727	551.023	538.849	518.908
<b>499</b>	584.125	575.419	562.789	552.075	539.890	519.929
<b>500</b>	585.207	576.493	563.852	553.127	540.930	520.950
<b>501</b>	586.288	577.566	564.914	554.178823	541.971	521.972
<b>502</b>	587.369	578.640	565.975	555.2307852	543.011	522.993
<b>503</b>	588.451	579.713	567.037	556.2826956	544.052	524.014
<b>504</b>	589.532	580.787	568.099	557.3345544	545.092	525.036

<b>db</b>	<b>0.005</b>	<b>0.010</b>	<b>0.025</b>	<b>0.050</b>	<b>0.100</b>	<b>0.250</b>
<b>505</b>	590.613	581.860	569.161	558.3863617	546.133	526.057
<b>506</b>	591.694	582.933	570.222	559.4381177	547.173	527.078
<b>507</b>	592.775	584.006	571.284	560.4898225	548.213	528.099
<b>508</b>	593.856	585.079	572.346	561.5414763	549.253	529.121
<b>509</b>	594.936	586.152	573.407	562.5930792	550.294	530.142
<b>510</b>	596.017	587.225	574.468	563.6446314	551.334	531.163
<b>511</b>	597.098	588.298	575.530	564.6961321	552.374	532.184
<b>512</b>	598.178	589.371	576.591	565.7475833	553.414	533.205
<b>513</b>	599.259	590.443	577.652	566.7989843	554.454	534.226
<b>514</b>	600.339	591.516	578.714	567.8503351	555.494	535.247
<b>515</b>	601.420	592.588	579.775	568.901636	556.534	536.268
<b>516</b>	602.500	593.661	580.836	569.952887	557.574	537.289
<b>517</b>	603.580	594.733	581.897	571.0040883	558.614	538.310
<b>518</b>	604.660	595.806	582.958	572.0552401	559.654	539.331
<b>519</b>	605.740	596.878	584.019	573.1063426	560.694	540.352
<b>520</b>	606.820	597.950	585.079	574.1573957	561.733	541.373
<b>521</b>	607.900	599.022	586.140	575.2083998	562.773	542.394
<b>522</b>	608.979	600.094	587.201	576.2593548	563.813	543.415
<b>523</b>	610.059	601.166	588.262	577.3102611	564.852	544.436
<b>524</b>	611.139	602.238	589.322	578.3611186	565.892	545.457
<b>525</b>	612.218	603.310	590.383	579.4119276	566.932	546.478
<b>526</b>	613.298	604.382	591.443	580.4626882	567.971	547.498
<b>527</b>	614.377	605.453	592.504	581.5134005	569.011	548.519
<b>528</b>	615.456	606.525	593.564	582.5640647	570.050	549.540
<b>529</b>	616.536	607.597	594.624	583.6146809	571.090	550.561
<b>530</b>	617.615	608.668	595.684	584.6652492	572.129	551.581
<b>531</b>	618.694	609.739	596.745	585.7157698	573.168	552.602
<b>532</b>	619.773	610.811	597.805	586.7662428	574.208	553.623
<b>533</b>	620.852	611.882	598.865	587.8166684	575.247	554.644
<b>534</b>	621.931	612.953	599.925	588.8670466	576.286	555.664
<b>535</b>	623.010	614.025	600.985	589.9173776	577.326	556.685
<b>536</b>	624.088	615.096	602.045	590.9676616	578.365	557.706
<b>537</b>	625.167	616.167	603.105	592.0178986	579.404	558.726
<b>538</b>	626.245	617.238	604.164	593.0680888	580.443	559.747
<b>539</b>	627.324	618.309	605.224	594.1182324	581.482	560.767
<b>540</b>	628.402	619.379	606.284	595.1683294	582.521	561.788
<b>541</b>	629.481	620.450	607.344	596.2183801	583.560	562.808
<b>542</b>	630.559	621.521	608.403	597.2683844	584.599	563.829
<b>543</b>	631.637	622.592	609.463	598.3183426	585.638	564.849
<b>544</b>	632.715	623.662	610.522	599.3682548	586.677	565.870
<b>545</b>	633.793	624.733	611.581	600.4181211	587.716	566.890
<b>546</b>	634.871	625.803	612.641	601.4679416	588.755	567.911
<b>547</b>	635.949	626.873	613.700	602.5177165	589.793	568.931
<b>548</b>	637.027	627.944	614.759	603.5674458	590.832	569.952



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