

## LAMPIRAN I

### Data Diri:

Nama : Auni Ladunniyah  
Tempat, Tanggal Lahir : Karang Mulya, 12 Agustus 2001  
Jenis Kelamin : Perempuan  
Agama : Islam  
Keanggotaan : Indonesia  
Status Perkawinan : Belum Menikah  
Alamat : Desa Karang Intan, Kec. Kuranji, Kab, Tanah  
Bumbu, Kalimantan Selatan  
Email : [auniladunniyah@gmail.com](mailto:auniladunniyah@gmail.com)

### Riwayat Pendidikan

(2007-2013) SDN Ringkit  
(2013-2016) SMP Islam Raudhatur Rahmah  
(2016-2019) SMAN 1 Sungai Loban

### Pengalam Organisasi:

(2021-2022) Sekretaris Bidang Huminfo Lembaga Dakwah Kampus Abdurrahman  
Ismail (LDK AMAL) UIN Antasari Banjarmasin  
(2021-2022) Sekretaris Bidang Informasi dan Komunikasi Kelompok Studi Pasar  
Modal (KSPM) Antasari  
(2022-2023) Ketua Bidang Informasi dan Komunikasi Kelompok Studi Pasar  
Modal (KSPM) Antasari

### Pengalaman Kerja

(2022) Magang di Kantor Kecamatan Kuranji, Kabupaten Tanah Bumbu  
(2023) Magang di Kantor Bursa Efek Indonesia Kantor Perwakilan Kalimantan  
Selatan .

## LAMPIRAN II

### Harga Saham Harian

Tanggal	ADARO	PTBA
02/02/2022	2,210	2,810
03/02/2022	2,220	2,820
04/02/2022	2,180	2,790
07/02/2022	2,200	2,820
08/02/2022	2,200	2,840
09/02/2022	2,210	2,870
10/02/2022	2,160	2,840
11/02/2022	2,170	2,880
14/02/2022	2,230	2,910
15/02/2022	2,290	2,910
16/02/2022	2,240	2,900
17/02/2022	2,220	2,900
18/02/2022	2,240	2,930
21/02/2022	2,220	2,940
22/02/2022	2,230	2,940
23/02/2022	2,320	3,010
24/02/2022	2,480	3,170
25/02/2022	2,450	3,140
01/03/2022	2,580	3,190
02/03/2022	2,610	3,250
04/03/2022	3,040	3,540
07/03/2022	3,240	3,620
08/03/2022	3,120	3,480
09/03/2022	3,080	3,540
10/03/2022	2,980	3,470
11/03/2022	3,000	3,480
14/03/2022	2,790	3,310
15/03/2022	2,710	3,300
16/03/2022	2,820	3,380
17/03/2022	2,740	3,320
18/03/2022	2,720	3,190
21/03/2022	2,720	3,220
22/03/2022	2,800	3,300

Tanggal	ADARO	PTBA
25/08/2022	3,410	4,360
26/08/2022	3,410	4,360
29/08/2022	3,460	4,360
30/08/2022	3,540	4,340
31/08/2022	3,540	4,250
01/09/2022	3,700	4,240
02/09/2022	3,780	4,260
05/09/2022	4,030	4,450
06/09/2022	4,040	4,470
07/09/2022	4,020	4,430
08/09/2022	3,940	4,330
09/09/2022	3,950	4,310
12/09/2022	3,970	4,340
13/09/2022	4,010	4,370
14/09/2022	4,010	4,360
15/09/2022	4,060	4,410
16/09/2022	3,930	4,320
19/09/2022	3,910	4,220
20/09/2022	3,890	4,200
21/09/2022	3,910	4,210
22/09/2022	4,100	4,340
23/09/2022	4,050	4,300
26/09/2022	3,860	4,150
27/09/2022	3,910	4,170
28/09/2022	3,870	4,150
29/09/2022	3,950	4,140
30/09/2022	3,960	4,170
03/10/2022	3,960	4,160
04/10/2022	4,120	4,240
05/10/2022	4,080	4,210
06/10/2022	4,100	4,230
07/10/2022	4,140	4,290
10/10/2022	3,920	4,150

23/03/2022	2,800	3,330
24/03/2022	2,880	3,350
25/03/2022	2,820	3,320
26/03/2022	2,860	3,430
29/03/2022	2,770	3,370
30/03/2022	2,680	3,280
31/03/2022	2,690	3,290
01/04/2022	2,810	3,330
04/04/2022	2,810	3,360
05/04/2022	3,000	3,480
06/04/2022	3,070	3,490
07/04/2022	3,050	3,500
08/04/2022	3,160	3,600
11/04/2022	3,140	3,550
12/04/2022	3,140	3,510
13/04/2022	3,350	3,760
14/04/2022	3,310	3,770
18/04/2022	3,290	3,760
19/04/2022	3,270	3,750
20/04/2022	3,230	3,700
21/04/2022	3,270	3,720
22/04/2022	3,210	3,690
25/04/2022	3,210	3,700
26/04/2022	3,160	3,640
27/04/2022	3,170	3,700
28/04/2022	3,340	3,820
09/05/2022	3,160	3,770
10/05/2022	3,090	3,660
11/05/2022	3,150	3,710
12/05/2022	3,150	3,650
13/05/2022	3,210	3,800
17/05/2022	3,220	4,100
18/05/2022	3,190	4,000
19/05/2022	3,110	3,950
20/05/2022	3,310	4,050
23/05/2022	3,150	4,100
24/05/2022	3,200	4,400
25/05/2022	3,100	4,390
27/05/2022	3,160	4,420

11/10/2022	3,930	4,220
12/10/2022	4,000	4,260
13/10/2022	4,020	4,250
14/10/2022	3,950	4,230
17/10/2022	3,960	4,250
18/10/2022	3,860	3,960
19/10/2022	3,840	3,730
20/10/2022	4,000	3,830
21/10/2022	3,960	3,830
24/10/2022	3,920	3,780
25/10/2022	3,880	3,750
26/10/2022	3,930	3,810
27/10/2022	3,980	3,790
28/10/2022	3,910	3,790
31/10/2022	3,980	3,910
01/11/2022	3,750	3,750
02/11/2022	3,740	3,740
03/11/2022	3,750	3,750
04/11/2022	3,750	3,750
07/11/2022	3,830	3,830
08/11/2022	3,760	3,790
09/11/2022	3,640	3,660
10/11/2022	3,480	3,470
11/11/2022	3,490	3,480
14/11/2022	3,500	3,480
15/11/2022	3,510	3,500
16/11/2022	3,570	3,500
17/11/2022	3,590	3,550
18/11/2022	3,590	3,550
21/11/2022	3,690	3,650
22/11/2022	3,700	3,690
23/11/2022	3,750	3,700
24/11/2022	3,750	3,690
25/11/2022	3,730	3,640
28/11/2022	3,740	3,680
29/11/2022	3,880	3,750
30/11/2022	3,870	3,800
01/12/2022	3,900	3,810
02/12/2022	3,850	3,770

30/05/2022	3,060	4,430
31/05/2022	3,270	4,530
02/06/2022	3,330	4,550
03/06/2022	3,520	4,630
06/06/2022	3,460	4,310
07/06/2022	3,650	4,070
08/06/2022	3,630	4,050
09/06/2022	3,600	4,070
10/06/2022	3,430	3,920
13/06/2022	3,190	3,870
14/06/2022	3,260	3,880
15/06/2022	3,040	3,680
16/06/2022	3,060	3,820
17/06/2022	2,920	3,730
20/06/2022	2,930	3,730
21/06/2022	3,030	4,030
22/06/2022	3,030	4,120
23/06/2022	2,940	4,090
24/06/2022	2,970	4,090
27/06/2022	2,960	3,970
28/06/2022	2,950	4,030
29/06/2022	2,870	3,990
30/06/2022	2,860	3,820
01/07/2022	2,720	3,720
04/07/2022	2,770	3,680
05/07/2022	2,880	3,920
06/07/2022	2,770	3,860
07/07/2022	2,770	3,850
08/07/2022	2,830	3,930
11/07/2022	2,830	3,870
12/07/2022	2,920	3,980
13/07/2022	2,930	4,030
14/07/2022	2,930	4,060
15/07/2022	2,760	3,940
18/07/2022	2,790	3,890
19/07/2022	2,950	3,980
20/07/2022	3,020	4,030
21/07/2022	3,020	4,020
22/07/2022	3,030	4,050

05/12/2022	3,780	3,690
06/12/2022	3,810	3,660
07/12/2022	3,830	3,690
08/12/2022	3,740	3,700
09/12/2022	3,680	3,620
12/12/2022	3,800	3,800
13/12/2022	3,740	3,720
14/12/2022	3,880	3,790
15/12/2022	3,900	3,770
16/12/2022	3,890	3,800
19/12/2022	3,970	3,820
20/12/2022	3,920	3,770
21/12/2022	3,920	3,760
22/12/2022	3,930	3,760
23/12/2022	3,810	3,740
26/12/2022	3,800	3,700
27/12/2022	3,750	3,690
28/12/2022	3,750	3,670
29/12/2022	3,800	3,670
30/12/2022	3,850	3,690
02/01/2023	3,590	3,690
03/01/2023	3,520	3,730
04/01/2023	3,300	3,620
05/01/2023	3,100	3,410
06/01/2023	3,140	3,430
09/01/2023	3,030	3,280
10/01/2023	3,140	3,360
11/01/2023	3,180	3,400
12/01/2023	3,090	3,330
13/01/2023	3,140	3,330
16/01/2023	3,100	3,320
17/01/2023	3,140	3,350
18/01/2023	3,170	3,410
19/01/2023	3,130	3,490
20/01/2023	3,240	3,570
24/01/2023	3,200	3,540
25/01/2023	3,130	3,480
26/01/2023	3,010	3,390
27/01/2023	3,060	3,470

25/07/2022	3,100	4,060
26/07/2022	3,600	4,090
27/07/2022	3,280	4,270
28/07/2022	3,280	4,270
29/07/2022	3,250	4,300
01/08/2022	3,350	4,280
02/08/2022	3,180	4,190
03/08/2022	3,310	4,230
04/08/2022	3,190	4,110
05/08/2022	3,130	4,120
08/08/2022	3,080	4,040
09/08/2022	3,130	4,070
10/08/2022	3,140	4,170
11/08/2022	3,150	4,150
12/08/2022	3,190	4,150
15/08/2022	3,160	4,130
16/08/2022	3,150	4,080
18/08/2022	3,250	4,130
19/08/2022	3,250	4,210
22/08/2022	3,150	4,100
23/08/2022	3,350	4,250
24/08/2022	3,410	4,330

30/01/2023	3,010	3,450
31/01/2023	2,960	3,400
01/02/2023	2,950	3,380
02/02/2023	3,870	3,420
03/02/2023	2,760	3,330
06/02/2023	2,780	3,260
07/02/2023	2,890	3,470
08/02/2023	2,920	3,490
09/02/2023	2,840	3,480
10/02/2023	2,740	3,370
13/02/2023	2,780	3,370
14/02/2023	2,830	3,400
15/02/2023	2,950	3,440
16/02/2023	2,950	3,510
17/02/2023	2,880	3,490
20/02/2023	2,900	3,570
21/02/2023	2,820	3,520
22/02/2023	2,850	3,540
23/02/2023	2,900	3,560
24/02/2023	2,890	3,660
27/02/2023	2,950	3,730
28/02/2023	2,990	3,860

## PT. Adaro Energy, Tbk

### Uji Stasioner Tingkat Level

Null Hypothesis: ADRO has a unit root

Exogenous: Constant

Lag Length: 1 (Automatic - based on SIC, maxlag=15)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-2.327421	0.1641
Test critical values: 1% level	-3.455001	
5% level	-2.872286	
10% level	-2.572570	

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

### Identifikasi Model Tingkat Level

Date: 05/06/23 Time: 09:16

Sample: 1 266

Included observations: 266

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob	
		1	0.955	0.955	245.52	0.000
		2	0.929	0.192	478.81	0.000
		3	0.901	0.007	699.08	0.000
		4	0.873	-0.017	906.60	0.000
		5	0.841	-0.067	1099.7	0.000
		6	0.810	-0.020	1279.7	0.000
		7	0.779	-0.014	1446.8	0.000
		8	0.752	0.025	1602.9	0.000
		9	0.725	0.012	1748.7	0.000
		10	0.701	0.029	1885.7	0.000
		11	0.674	-0.048	2012.6	0.000
		12	0.647	-0.021	2130.3	0.000
		13	0.620	-0.033	2238.5	0.000
		14	0.592	-0.031	2337.5	0.000
		15	0.569	0.051	2429.5	0.000
		16	0.544	-0.016	2513.8	0.000
		17	0.520	-0.005	2591.1	0.000
		18	0.499	0.023	2662.6	0.000
		19	0.488	0.122	2731.4	0.000
		20	0.477	0.032	2797.3	0.000
		21	0.471	0.068	2861.9	0.000
		22	0.466	0.024	2925.3	0.000
		23	0.459	-0.035	2987.0	0.000
		24	0.449	-0.049	3046.3	0.000
		25	0.435	-0.080	3102.3	0.000
		26	0.420	-0.035	3154.8	0.000
		27	0.404	-0.025	3203.5	0.000
		28	0.386	-0.024	3248.1	0.000
		29	0.369	-0.007	3289.1	0.000
		30	0.349	-0.040	3325.9	0.000
		31	0.327	-0.071	3358.3	0.000
		32	0.310	0.029	3387.6	0.000
		33	0.291	-0.003	3413.6	0.000
		34	0.271	-0.037	3436.2	0.000
		35	0.251	-0.003	3455.6	0.000
		36	0.228	-0.050	3471.7	0.000

### Uji Stasioner Tingkat 1<sup>st</sup>

Null Hypothesis: D(ADRO) has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=15)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-21.26703	0.0000
Test critical values: 1% level	-3.455001	
5% level	-2.872286	
10% level	-2.572570	

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

### Identifikasi Model Tingkat 1<sup>st</sup>

Date: 05/06/23 Time: 09:19

Sample (adjusted): 2 266

Included observations: 265 after adjustments

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
		1 -0.266	-0.266	19.030	0.000
		2 0.017	-0.058	19.105	0.000
		3 0.007	-0.004	19.117	0.000
		4 0.057	0.063	19.997	0.001
		5 -0.022	0.012	20.134	0.001
		6 -0.007	-0.009	20.147	0.003
		7 -0.047	-0.059	20.761	0.004
		8 0.008	-0.027	20.777	0.008
		9 -0.031	-0.039	21.044	0.012
		10 0.039	0.026	21.459	0.018
		11 -0.029	-0.006	21.693	0.027
		12 0.022	0.016	21.825	0.040
		13 0.008	0.019	21.843	0.058
		14 -0.071	-0.077	23.269	0.056
		15 0.056	0.017	24.155	0.063
		16 0.014	0.030	24.211	0.085
		17 -0.053	-0.038	25.018	0.094
		18 -0.052	-0.077	25.793	0.105
		19 -0.035	-0.083	26.151	0.126
		20 0.016	-0.023	26.226	0.158
		21 0.045	0.054	26.814	0.177
		22 0.004	0.050	26.819	0.218
		23 0.025	0.049	27.008	0.256
		24 0.037	0.057	27.418	0.285
		25 0.024	0.030	27.585	0.327
		26 -0.027	-0.027	27.797	0.369
		27 0.000	-0.022	27.797	0.422
		28 0.017	0.005	27.879	0.471
		29 0.015	0.039	27.946	0.521
		30 0.030	0.069	28.223	0.559
		31 -0.077	-0.058	30.036	0.515
		32 0.042	0.000	30.571	0.539
		33 0.029	0.035	30.822	0.576
		34 0.011	0.037	30.859	0.622
		35 0.030	0.061	31.128	0.656
		36 -0.082	-0.082	33.210	0.602

## Estimasi Model

### ARIMA 1,1,1

Dependent Variable: D(ADRO)  
 Method: ARMA Maximum Likelihood (OPG - BHHH)  
 Date: 05/06/23 Time: 09:38  
 Sample: 2 266  
 Included observations: 265  
 Convergence achieved after 105 iterations  
 Coefficient covariance computed using outer product of gradients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.897657	6.983994	0.414900	0.6786
AR(1)	-0.093833	0.195149	-0.480827	0.6310
MA(1)	-0.186477	0.203442	-0.916613	0.3602
SIGMASQ	16201.33	614.8365	26.35063	0.0000
R-squared	0.073931	Mean dependent var		2.943396
Adjusted R-squared	0.063287	S.D. dependent var		132.5179
S.E. of regression	128.2561	Akaike info criterion		12.56121
Sum squared resid	4293352.	Schwarz criterion		12.61525
Log likelihood	-1660.361	Hannan-Quinn criter.		12.58292
F-statistic	6.945495	Durbin-Watson stat		2.002488
Prob(F-statistic)	0.000163			
Inverted AR Roots	-.09			
Inverted MA Roots	.19			

Date: 05/06/23 Time: 09:40  
 Sample (adjusted): 2 266  
 Q-statistic probabilities adjusted for 2 ARMA terms

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
		1 -0.002 -0.002	0.0007		
		2 -0.004 -0.004	0.0047		
		3 0.025 0.025	0.1680	0.682	
		4 0.060 0.061	1.1591	0.560	
		5 -0.013 -0.012	1.2023	0.752	
		6 -0.026 -0.027	1.3915	0.846	
		7 -0.057 -0.061	2.2849	0.808	
		8 -0.014 -0.018	2.3411	0.886	
		9 -0.026 -0.024	2.5274	0.925	
		10 0.027 0.033	2.7257	0.950	
		11 -0.017 -0.009	2.8053	0.972	
		12 0.017 0.019	2.8856	0.984	
		13 -0.004 -0.006	2.8903	0.992	
		14 -0.061 -0.070	3.9469	0.984	
		15 0.044 0.042	4.4914	0.985	
		16 0.009 0.006	4.5169	0.991	
		17 -0.073 -0.067	6.0278	0.979	
		18 -0.083 -0.080	8.0193	0.948	
		19 -0.055 -0.062	8.8932	0.944	
		20 0.019 0.016	8.9925	0.960	
		21 0.058 0.070	9.9808	0.953	
		22 0.030 0.048	10.251	0.963	
		23 0.047 0.050	10.892	0.965	
		24 0.059 0.048	11.915	0.959	
		25 0.033 0.006	12.243	0.967	
		26 -0.020 -0.037	12.359	0.976	
		27 -0.000 -0.009	12.359	0.983	
		28 0.024 0.023	12.532	0.988	
		29 0.028 0.049	12.769	0.991	
		30 0.019 0.038	12.879	0.993	
		31 -0.064 -0.069	14.132	0.991	
		32 0.036 0.030	14.530	0.992	
		33 0.047 0.043	15.214	0.992	
		34 0.029 0.037	15.467	0.994	
		35 0.017 0.025	15.553	0.996	
		36 -0.068 -0.092	16.994	0.993	



## ARIMA 1,1,0

Dependent Variable: D(ADRO)  
 Method: ARMA Maximum Likelihood (OPG - BHHH)  
 Date: 05/06/23 Time: 09:42  
 Sample: 2 266  
 Included observations: 265  
 Convergence achieved after 87 iterations  
 Coefficient covariance computed using outer product of gradients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.908412	7.140534	0.407310	0.6841
AR(1)	-0.265545	0.024992	-10.62530	0.0000
SIGMASQ	16252.18	574.4161	28.29340	0.0000
R-squared	0.071024	Mean dependent var		2.943396
Adjusted R-squared	0.063933	S.D. dependent var		132.5179
S.E. of regression	128.2118	Akaike info criterion		12.55678
Sum squared resid	4306828.	Schwarz criterion		12.59730
Log likelihood	-1660.773	Hannan-Quinn criter.		12.57306
F-statistic	10.01552	Durbin-Watson stat		2.032478
Prob(F-statistic)	0.000064			
Inverted AR Roots	-0.27			

Date: 05/06/23 Time: 09:43  
 Sample (adjusted): 2 266  
 Q-statistic probabilities adjusted for 1 ARMA term

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
		1 -0.017 -0.017	0.0735		
		2 -0.055 -0.055	0.8906	0.345	
		3 0.029 0.027	1.1161	0.572	
		4 0.061 0.059	2.1270	0.546	
		5 -0.012 -0.006	2.1631	0.706	
		6 -0.028 -0.022	2.3714	0.796	
		7 -0.054 -0.060	3.1789	0.786	
		8 -0.013 -0.021	3.2279	0.863	
		9 -0.023 -0.027	3.3694	0.909	
		10 0.027 0.031	3.5730	0.937	
		11 -0.016 -0.010	3.6469	0.962	
		12 0.019 0.024	3.7478	0.977	
		13 -0.005 -0.008	3.7540	0.987	
		14 -0.064 -0.070	4.8917	0.977	
		15 0.048 0.043	5.5441	0.977	
		16 0.017 0.008	5.6232	0.985	
		17 -0.072 -0.060	7.0825	0.972	
		18 -0.083 -0.081	9.0674	0.938	
		19 -0.053 -0.070	9.8763	0.936	
		20 0.021 0.009	10.009	0.953	
		21 0.058 0.065	10.979	0.947	
		22 0.025 0.046	11.162	0.960	
		23 0.041 0.053	11.657	0.964	
		24 0.057 0.052	12.626	0.960	
		25 0.031 0.009	12.903	0.968	
		26 -0.024 -0.035	13.072	0.976	
		27 -0.003 -0.011	13.075	0.983	
		28 0.024 0.018	13.240	0.988	
		29 0.031 0.052	13.521	0.990	
		30 0.017 0.039	13.609	0.993	
		31 -0.069 -0.068	15.028	0.990	
		32 0.034 0.028	15.387	0.991	
		33 0.048 0.038	16.101	0.991	
		34 0.029 0.044	16.362	0.993	
		35 0.014 0.028	16.419	0.995	
		36 -0.069 -0.088	17.873	0.993	

## ARIMA 0,1,1

Dependent Variable: D(ADRO)  
 Method: ARMA Maximum Likelihood (OPG - BHHH)  
 Date: 05/06/23 Time: 09:44  
 Sample: 2 266  
 Included observations: 265  
 Convergence achieved after 93 iterations  
 Coefficient covariance computed using outer product of gradients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.892973	6.894848	0.419585	0.6751
MA(1)	-0.271264	0.028807	-9.416764	0.0000
SIGMASQ	16215.11	616.0883	26.31946	0.0000
R-squared	0.073143	Mean dependent var		2.943396
Adjusted R-squared	0.066068	S.D. dependent var		132.5179
S.E. of regression	128.0655	Akaike info criterion		12.55451
Sum squared resid	4297005.	Schwarz criterion		12.59503
Log likelihood	-1660.472	Hannan-Quinn criter.		12.57079
F-statistic	10.33788	Durbin-Watson stat		2.019167
Prob(F-statistic)	0.000048			
Inverted MA Roots	.27			

Date: 05/06/23 Time: 09:44  
 Sample (adjusted): 2 266  
 Q-statistic probabilities adjusted for 1 ARMA term

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
		1 -0.010 -0.010	0.0263		
		2 0.021 0.021	0.1455	0.703	
		3 0.028 0.028	0.3500	0.839	
		4 0.061 0.061	1.3476	0.718	
		5 -0.013 -0.013	1.3969	0.845	
		6 -0.024 -0.028	1.5603	0.906	
		7 -0.057 -0.061	2.4574	0.873	
		8 -0.014 -0.017	2.5077	0.927	
		9 -0.028 -0.023	2.7224	0.951	
		10 0.027 0.034	2.9218	0.967	
		11 -0.018 -0.009	3.0161	0.981	
		12 0.016 0.016	3.0903	0.989	
		13 -0.003 -0.004	3.0930	0.995	
		14 -0.061 -0.071	4.1538	0.989	
		15 0.042 0.039	4.6574	0.990	
		16 0.006 0.006	4.6680	0.995	
		17 -0.072 -0.068	6.1634	0.986	
		18 -0.081 -0.079	8.0369	0.966	
		19 -0.054 -0.060	8.8898	0.962	
		20 0.017 0.019	8.9734	0.974	
		21 0.058 0.073	9.9339	0.969	
		22 0.031 0.049	10.216	0.976	
		23 0.048 0.048	10.892	0.976	
		24 0.059 0.046	11.908	0.972	
		25 0.035 0.005	12.260	0.977	
		26 -0.018 -0.037	12.352	0.984	
		27 0.002 -0.008	12.353	0.989	
		28 0.024 0.024	12.522	0.992	
		29 0.026 0.048	12.731	0.994	
		30 0.021 0.039	12.865	0.996	
		31 -0.063 -0.069	14.059	0.994	
		32 0.038 0.029	14.489	0.995	
		33 0.046 0.044	15.121	0.995	
		34 0.027 0.035	15.349	0.996	
		35 0.019 0.026	15.460	0.997	
		36 -0.068 -0.093	16.908	0.996	

## ARIMA 1,1,2

Dependent Variable: D(ADRO)  
 Method: ARMA Maximum Likelihood (OPG - BHHH)  
 Date: 05/06/23 Time: 09:47  
 Sample: 2 266  
 Included observations: 265  
 Convergence achieved after 99 iterations  
 Coefficient covariance computed using outer product of gradients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.896649	6.959041	0.416243	0.6776
AR(1)	-0.278758	0.028684	-9.718219	0.0000
MA(2)	-0.052605	0.059458	-0.884753	0.3771
SIGMASQ	16204.60	614.9079	26.35289	0.0000
R-squared	0.073744	Mean dependent var		2.943396
Adjusted R-squared	0.063097	S.D. dependent var		132.5179
S.E. of regression	128.2690	Akaike info criterion		12.56141
Sum squared resid	4294220.	Schwarz criterion		12.61545
Log likelihood	-1660.387	Hannan-Quinn criter.		12.58312
F-statistic	6.926512	Durbin-Watson stat		2.004986
Prob(F-statistic)	0.000167			
Inverted AR Roots	-.28			
Inverted MA Roots	.23	-.23		

Date: 05/06/23 Time: 09:48  
 Sample (adjusted): 2 266  
 Q-statistic probabilities adjusted for 2 ARMA terms

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
		1 -0.003	-0.003	0.0021	
		2 -0.003	-0.003	0.0048	
		3 0.029	0.029	0.2345	0.628
		4 0.060	0.060	1.2010	0.549
		5 -0.012	-0.012	1.2431	0.743
		6 -0.026	-0.027	1.4310	0.839
		7 -0.057	-0.061	2.3093	0.805
		8 -0.014	-0.018	2.3658	0.883
		9 -0.026	-0.024	2.5536	0.923
		10 0.027	0.033	2.7492	0.949
		11 -0.017	-0.010	2.8331	0.971
		12 0.017	0.019	2.9138	0.983
		13 -0.004	-0.006	2.9180	0.992
		14 -0.062	-0.070	3.9902	0.984
		15 0.044	0.041	4.5285	0.984
		16 0.009	0.006	4.5522	0.991
		17 -0.073	-0.066	6.0674	0.979
		18 -0.083	-0.080	8.0231	0.948
		19 -0.055	-0.062	8.8862	0.944
		20 0.018	0.017	8.9835	0.960
		21 0.058	0.071	9.9635	0.954
		22 0.030	0.048	10.230	0.964
		23 0.047	0.050	10.870	0.965
		24 0.059	0.047	11.897	0.959
		25 0.034	0.006	12.229	0.967
		26 -0.019	-0.037	12.340	0.976
		27 0.000	-0.009	12.340	0.984
		28 0.024	0.022	12.510	0.988
		29 0.028	0.050	12.746	0.991
		30 0.020	0.038	12.861	0.993
		31 -0.064	-0.069	14.106	0.991
		32 0.037	0.030	14.510	0.992
		33 0.047	0.042	15.183	0.992
		34 0.028	0.038	15.431	0.994
		35 0.017	0.025	15.519	0.996
		36 -0.068	-0.092	16.949	0.994

## ARIMA 2,1,1

Dependent Variable: D(ADRO)  
 Method: ARMA Maximum Likelihood (OPG - BHHH)  
 Date: 05/06/23 Time: 09:49  
 Sample: 2 266  
 Included observations: 265  
 Convergence achieved after 107 iterations  
 Coefficient covariance computed using outer product of gradients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.896056	6.954850	0.416408	0.6775
AR(2)	0.023120	0.055096	0.419640	0.6751
MA(1)	-0.277487	0.028734	-9.657114	0.0000
SIGMASQ	16207.07	615.4171	26.33509	0.0000
R-squared	0.073603	Mean dependent var		2.943396
Adjusted R-squared	0.062955	S.D. dependent var		132.5179
S.E. of regression	128.2788	Akaike info criterion		12.56156
Sum squared resid	4294872.	Schwarz criterion		12.61559
Log likelihood	-1660.407	Hannan-Quinn criter.		12.58327
F-statistic	6.912236	Durbin-Watson stat		2.007424
Prob(F-statistic)	0.000170			
Inverted AR Roots	.15	-.15		
Inverted MA Roots	.28			

Date: 05/06/23 Time: 09:50  
 Sample (adjusted): 2 266  
 Q-statistic probabilities adjusted for 2 ARMA terms

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
		1 -0.004	-0.004	0.0044	
		2 -0.002	-0.002	0.0050	
		3 0.029	0.029	0.2302	0.631
		4 0.061	0.061	1.2376	0.539
		5 -0.013	-0.012	1.2807	0.734
		6 -0.026	-0.027	1.4643	0.833
		7 -0.057	-0.061	2.3425	0.800
		8 -0.014	-0.018	2.3973	0.880
		9 -0.026	-0.024	2.5872	0.920
		10 0.027	0.033	2.7821	0.947
		11 -0.017	-0.009	2.8672	0.969
		12 0.017	0.019	2.9473	0.983
		13 -0.004	-0.006	2.9516	0.991
		14 -0.062	-0.070	4.0259	0.983
		15 0.043	0.041	4.5606	0.984
		16 0.009	0.006	4.5836	0.991
		17 -0.073	-0.066	6.0917	0.978
		18 -0.082	-0.080	8.0382	0.948
		19 -0.055	-0.062	8.8954	0.943
		20 0.018	0.017	8.9926	0.960
		21 0.058	0.071	9.9682	0.954
		22 0.030	0.048	10.232	0.964
		23 0.047	0.050	10.870	0.965
		24 0.059	0.047	11.896	0.959
		25 0.034	0.006	12.231	0.967
		26 -0.019	-0.037	12.340	0.976
		27 0.000	-0.009	12.340	0.984
		28 0.024	0.022	12.512	0.988
		29 0.028	0.050	12.747	0.991
		30 0.020	0.038	12.863	0.993
		31 -0.064	-0.069	14.104	0.991
		32 0.037	0.029	14.510	0.992
		33 0.047	0.042	15.180	0.992
		34 0.028	0.037	15.426	0.994
		35 0.017	0.025	15.515	0.996
		36 -0.068	-0.092	16.947	0.994

## ARIMA 0,1,2

Dependent Variable: D(ADRO)  
 Method: ARMA Maximum Likelihood (OPG - BHHH)  
 Date: 05/06/23 Time: 09:52  
 Sample: 2 266  
 Included observations: 265  
 Convergence achieved after 24 iterations  
 Coefficient covariance computed using outer product of gradients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.946628	8.407565	0.350473	0.7263
MA(2)	0.014903	0.078593	0.189618	0.8498
SIGMASQ	17490.35	406.0247	43.07706	0.0000
R-squared	0.000250	Mean dependent var		2.943396
Adjusted R-squared	-0.007381	S.D. dependent var		132.5179
S.E. of regression	133.0061	Akaike info criterion		12.62992
Sum squared resid	4634943.	Schwarz criterion		12.67045
Log likelihood	-1670.465	Hannan-Quinn criter.		12.64621
F-statistic	0.032821	Durbin-Watson stat		2.525121
Prob(F-statistic)	0.967716			
Inverted MA Roots	-0.00+.12i	-0.00-.12i		

Date: 05/06/23 Time: 09:54  
 Sample (adjusted): 2 266  
 Q-statistic probabilities adjusted for 1 ARMA term

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
█	█	1 -0.263	-0.263	18.498	
		2 0.001	-0.073	18.498	0.000
		3 0.011	-0.009	18.531	0.000
		4 0.057	0.063	19.415	0.000
		5 -0.022	0.012	19.545	0.001
		6 -0.008	-0.007	19.562	0.002
		7 -0.047	-0.058	20.156	0.003
		8 0.007	-0.027	20.170	0.005
		9 -0.030	-0.040	20.419	0.009
		10 0.038	0.025	20.825	0.013
		11 -0.029	-0.007	21.053	0.021
		12 0.022	0.018	21.191	0.031
		13 0.008	0.018	21.207	0.047
		14 -0.072	-0.077	22.658	0.046
		15 0.057	0.018	23.565	0.052
		16 0.016	0.030	23.637	0.072
		17 -0.053	-0.037	24.453	0.080
		18 -0.053	-0.076	25.249	0.089
		19 -0.035	-0.085	25.604	0.109
		20 0.017	-0.025	25.687	0.139
		21 0.045	0.052	26.279	0.157
		22 0.003	0.049	26.282	0.196
		23 0.024	0.050	26.456	0.233
		24 0.038	0.058	26.874	0.261
		25 0.023	0.031	27.035	0.303
		26 -0.028	-0.026	27.260	0.343
		27 -0.000	-0.022	27.260	0.396
		28 0.017	0.004	27.342	0.445
		29 0.016	0.040	27.421	0.495
		30 0.029	0.069	27.682	0.535
		31 -0.078	-0.058	29.528	0.490
		32 0.041	0.001	30.047	0.515
		33 0.029	0.034	30.311	0.552
		34 0.012	0.039	30.352	0.600
		35 0.028	0.061	30.598	0.635
		36 -0.082	-0.081	32.652	0.582

## ARIMA 2,1,0

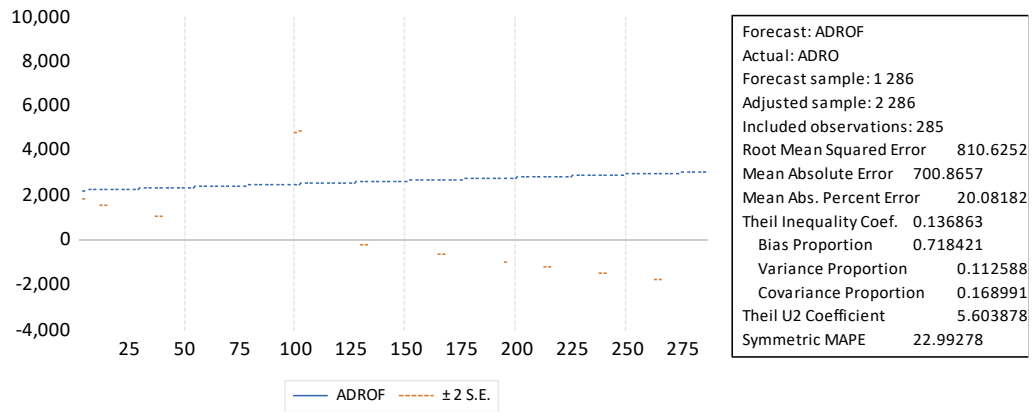
Dependent Variable: D(ADRO)  
 Method: ARMA Maximum Likelihood (OPG - BHHH)  
 Date: 05/06/23 Time: 09:54  
 Sample: 2 266  
 Included observations: 265  
 Convergence achieved after 14 iterations  
 Coefficient covariance computed using outer product of gradients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.947102	8.420618	0.349986	0.7266
AR(2)	0.016592	0.077858	0.213100	0.8314
SIGMASQ	17489.85	405.8214	43.09741	0.0000
R-squared	0.000279	Mean dependent var		2.943396
Adjusted R-squared	-0.007352	S.D. dependent var		132.5179
S.E. of regression	133.0042	Akaike info criterion		12.62990
Sum squared resid	4634810.	Schwarz criterion		12.67042
Log likelihood	-1670.461	Hannan-Quinn criter.		12.64618
F-statistic	0.036566	Durbin-Watson stat		2.524280
Prob(F-statistic)	0.964099			
Inverted AR Roots	.13	-.13		

Date: 05/06/23 Time: 09:55  
 Sample (adjusted): 2 266  
 Q-statistic probabilities adjusted for 1 ARMA term

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
		1 -0.262	-0.262	18.439	
		2 -0.001	-0.075	18.439	0.000
		3 0.012	-0.009	18.475	0.000
		4 0.057	0.062	19.352	0.000
		5 -0.022	0.012	19.480	0.001
		6 -0.008	-0.007	19.497	0.002
		7 -0.046	-0.058	20.089	0.003
		8 0.007	-0.028	20.104	0.005
		9 -0.030	-0.040	20.350	0.009
		10 0.038	0.025	20.755	0.014
		11 -0.029	-0.007	20.983	0.021
		12 0.022	0.018	21.122	0.032
		13 0.007	0.018	21.138	0.048
		14 -0.072	-0.077	22.591	0.047
		15 0.057	0.018	23.502	0.053
		16 0.016	0.030	23.575	0.073
		17 -0.054	-0.037	24.393	0.081
		18 -0.053	-0.076	25.191	0.091
		19 -0.035	-0.085	25.546	0.111
		20 0.017	-0.025	25.629	0.141
		21 0.045	0.052	26.222	0.159
		22 0.003	0.049	26.225	0.198
		23 0.024	0.050	26.397	0.235
		24 0.038	0.058	26.816	0.264
		25 0.023	0.031	26.977	0.306
		26 -0.028	-0.026	27.203	0.346
		27 -0.000	-0.022	27.203	0.399
		28 0.017	0.004	27.285	0.449
		29 0.016	0.040	27.365	0.498
		30 0.029	0.069	27.625	0.538
		31 -0.078	-0.058	29.474	0.493
		32 0.041	0.001	29.992	0.518
		33 0.029	0.033	30.257	0.555
		34 0.012	0.039	30.299	0.602
		35 0.028	0.062	30.542	0.638
		36 -0.081	-0.080	32.594	0.585

## HASIL PREDIKSI



## PT. Bukit Asam, Tbk

### Uji Stasioner Tingkat Level

Null Hypothesis: PTBA has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=15)

	t-Statistic	Prob.*
<b>Augmented Dickey-Fuller test statistic</b>	<b>-2.591552</b>	<b>0.0960</b>
Test critical values:		
1% level	-3.454906	
5% level	-2.872244	
10% level	-2.572547	

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

Date: 05/06/23 Time: 21:00

Sample: 1 266

Included observations: 266

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
1	0.965	0.965	250.57	0.000	
2	0.928	-0.044	483.35	0.000	
3	0.895	0.033	700.65	0.000	
4	0.862	-0.019	902.97	0.000	
5	0.833	0.033	1092.3	0.000	
6	0.799	-0.081	1267.2	0.000	
7	0.762	-0.049	1427.0	0.000	
8	0.729	0.032	1573.9	0.000	
9	0.702	0.064	1710.8	0.000	
10	0.678	0.007	1838.6	0.000	
11	0.656	0.042	1958.9	0.000	
12	0.636	0.010	2072.3	0.000	
13	0.617	0.027	2179.7	0.000	
14	0.598	-0.046	2280.7	0.000	
15	0.582	0.051	2376.9	0.000	
16	0.565	-0.033	2468.0	0.000	
17	0.545	-0.050	2553.0	0.000	
18	0.524	-0.022	2631.9	0.000	
19	0.504	0.011	2705.1	0.000	
20	0.487	0.046	2774.0	0.000	
21	0.478	0.096	2840.5	0.000	
22	0.468	-0.019	2904.5	0.000	
23	0.457	0.009	2965.6	0.000	
24	0.446	-0.003	3024.3	0.000	
25	0.432	-0.057	3079.6	0.000	
26	0.416	-0.070	3131.0	0.000	
27	0.397	-0.064	3178.0	0.000	
28	0.378	0.017	3220.9	0.000	
29	0.359	-0.023	3259.5	0.000	
30	0.336	-0.050	3293.6	0.000	
31	0.311	-0.027	3322.9	0.000	
32	0.291	0.072	3348.6	0.000	
33	0.276	0.060	3371.9	0.000	
34	0.258	-0.074	3392.4	0.000	
35	0.242	0.017	3410.4	0.000	
36	0.228	0.024	3426.6	0.000	



### Uji Stasioner Tingkat 1<sup>st</sup>

Null Hypothesis: D(PTBA) has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=15)

	t-Statistic	Prob.*
<b>Augmented Dickey-Fuller test statistic</b>	<b>-15.39478</b>	<b>0.0000</b>
Test critical values: 1% level	-3.455001	
5% level	-2.872286	
10% level	-2.572570	

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

Date: 05/06/23 Time: 21:01

Sample (adjusted): 2 266

Included observations: 265 after adjustments

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
		1 0.046	0.046	0.5638	0.453
		2 -0.086	-0.088	2.5336	0.282
		3 0.015	0.024	2.5982	0.458
		4 -0.059	-0.069	3.5455	0.471
		5 0.101	0.113	6.3059	0.278
		6 0.037	0.013	6.6836	0.351
		7 -0.060	-0.041	7.6655	0.363
		8 -0.110	-0.112	10.987	0.202
		9 -0.038	-0.023	11.383	0.250
		10 -0.074	-0.099	12.918	0.228
		11 -0.021	-0.024	13.045	0.290
		12 -0.033	-0.053	13.357	0.344
		13 0.029	0.059	13.599	0.403
		14 -0.086	-0.106	15.675	0.334
		15 0.056	0.090	16.557	0.346
		16 0.157	0.121	23.519	0.101
		17 -0.005	0.004	23.527	0.133
		18 0.004	-0.019	23.533	0.171
		19 -0.053	-0.050	24.333	0.184
		20 -0.016	-0.021	24.410	0.225
		21 0.066	0.021	25.675	0.219
		22 -0.052	-0.092	26.470	0.232
		23 0.015	0.062	26.539	0.276
		24 0.030	0.038	26.800	0.314
		25 0.054	0.104	27.660	0.324
		26 -0.010	-0.021	27.692	0.374
		27 -0.027	0.017	27.904	0.416
		28 0.067	0.060	29.255	0.400
		29 0.044	0.032	29.846	0.422
		30 -0.019	-0.035	29.954	0.468
		31 -0.088	-0.105	32.320	0.401
		32 -0.074	-0.087	33.984	0.372
		33 0.075	0.090	35.708	0.342
		34 -0.020	-0.058	35.825	0.383
		35 -0.076	-0.005	37.595	0.351
		36 -0.002	0.008	37.596	0.396

## HASIL ESTIMASI MODEL

### ARIMA 1,1,1

Dependent Variable: D(PTBA)  
 Method: ARMA Maximum Likelihood (OPG - BHHH)  
 Date: 05/06/23 Time: 21:18  
 Sample: 2 266  
 Included observations: 265  
 Convergence achieved after 23 iterations  
 Coefficient covariance computed using outer product of gradients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.025543	5.691691	0.707267	0.4800
AR(1)	-0.864804	0.050434	-17.14714	0.0000
MA(1)	0.961615	0.031445	30.58095	0.0000
SIGMASQ	7487.710	439.8373	17.02382	0.0000

R-squared	0.035717	Mean dependent var	3.962264
Adjusted R-squared	0.024633	S.D. dependent var	88.28629
S.E. of regression	87.19211	Akaike info criterion	11.79060
Sum squared resid	1984243.	Schwarz criterion	11.84463
Log likelihood	-1558.254	Hannan-Quinn criter.	11.81231
F-statistic	3.222486	Durbin-Watson stat	2.018399
Prob(F-statistic)	0.023217		

Inverted AR Roots	-.86
Inverted MA Roots	-.96

Date: 05/06/23 Time: 21:19  
 Sample (adjusted): 2 266  
 Q-statistic probabilities adjusted for 2 ARMA terms

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
		1 -0.014	-0.014	0.0526	
		2 -0.030	-0.031	0.3007	
		3 -0.027	-0.028	0.5038	0.478
		4 -0.019	-0.021	0.6026	0.740
		5 0.063	0.061	1.6817	0.641
		6 0.062	0.062	2.7318	0.604
		7 -0.079	-0.075	4.4293	0.489
		8 -0.084	-0.081	6.3837	0.382
		9 -0.050	-0.053	7.0859	0.420
		10 -0.057	-0.070	7.9858	0.435
		11 -0.030	-0.052	8.2403	0.510
		12 -0.023	-0.029	8.3859	0.591
		13 0.019	0.031	8.4897	0.669
		14 -0.073	-0.069	9.9999	0.616
		15 0.045	0.042	10.572	0.647
		16 0.157	0.159	17.578	0.227
		17 -0.015	-0.018	17.646	0.282
		18 0.012	-0.001	17.685	0.343
		19 -0.055	-0.059	18.540	0.356
		20 -0.012	-0.018	18.585	0.418
		21 0.060	0.016	19.644	0.416
		22 -0.049	-0.081	20.339	0.437
		23 0.015	0.042	20.408	0.496
		24 0.026	0.055	20.610	0.545
		25 0.051	0.083	21.386	0.558
		26 -0.010	0.007	21.417	0.614
		27 -0.024	-0.009	21.595	0.659
		28 0.064	0.078	22.815	0.643
		29 0.041	0.021	23.330	0.667
		30 -0.017	-0.020	23.419	0.712
		31 -0.084	-0.111	25.536	0.650
		32 -0.069	-0.086	26.976	0.625
		33 0.069	0.073	28.425	0.599
		34 -0.015	-0.029	28.495	0.645
		35 -0.075	-0.034	30.208	0.607
		36 0.001	0.030	30.208	0.654

## ARIMA 0,1,1

Dependent Variable: D(PTBA)  
 Method: ARMA Maximum Likelihood (OPG - BHHH)  
 Date: 05/06/23 Time: 21:20  
 Sample: 2 266  
 Included observations: 265  
 Convergence achieved after 15 iterations  
 Coefficient covariance computed using outer product of gradients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.989850	5.738510	0.695276	0.4875
MA(1)	0.055972	0.052426	1.067638	0.2867
SIGMASQ	7745.057	471.5010	16.42638	0.0000
R-squared	0.002575	Mean dependent var		3.962264
Adjusted R-squared	-0.005038	S.D. dependent var		88.28629
S.E. of regression	88.50842	Akaike info criterion		11.81534
Sum squared resid	2052440.	Schwarz criterion		11.85587
Log likelihood	-1562.533	Hannan-Quinn criter.		11.83162
F-statistic	0.338257	Durbin-Watson stat		2.002086
Prob(F-statistic)	0.713323			
Inverted MA Roots	-0.06			

Date: 05/06/23 Time: 21:20  
 Sample (adjusted): 2 266  
 Q-statistic probabilities adjusted for 1 ARMA term

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
		1 -0.005 -0.005	0.0060		
		2 -0.086 -0.086	2.0139	0.156	
		3 0.024 0.024	2.1732	0.337	
		4 -0.066 -0.074	3.3575	0.340	
		5 0.102 0.108	6.2160	0.184	
		6 0.034 0.021	6.5387	0.257	
		7 -0.056 -0.034	7.3862	0.287	
		8 -0.105 -0.113	10.433	0.165	
		9 -0.028 -0.023	10.646	0.223	
		10 -0.072 -0.099	12.076	0.209	
		11 -0.015 -0.026	12.142	0.276	
		12 -0.035 -0.058	12.475	0.329	
		13 0.036 0.062	12.839	0.381	
		14 -0.091 -0.107	15.160	0.297	
		15 0.052 0.077	15.932	0.318	
		16 0.155 0.125	22.763	0.089	
		17 -0.015 0.011	22.826	0.118	
		18 0.008 -0.016	22.843	0.154	
		19 -0.052 -0.049	23.622	0.168	
		20 -0.017 -0.025	23.710	0.208	
		21 0.070 0.025	25.131	0.196	
		22 -0.057 -0.094	26.083	0.203	
		23 0.017 0.055	26.171	0.244	
		24 0.026 0.035	26.363	0.284	
		25 0.053 0.106	27.192	0.296	
		26 -0.012 -0.016	27.233	0.344	
		27 -0.030 0.013	27.492	0.384	
		28 0.067 0.059	28.825	0.369	
		29 0.042 0.037	29.347	0.395	
		30 -0.017 -0.028	29.429	0.443	
		31 -0.083 -0.101	31.533	0.390	
		32 -0.074 -0.098	33.187	0.361	
		33 0.080 0.088	35.145	0.321	
		34 -0.020 -0.052	35.263	0.362	
		35 -0.075 -0.009	36.986	0.333	
		36 0.007 0.010	36.999	0.377	

## ARIMA 1,1,0

Dependent Variable: D(PTBA)

Method: ARMA Maximum Likelihood (OPG - BHHH)

Date: 05/06/23 Time: 21:21

Sample: 2 266

Included observations: 265

Convergence achieved after 11 iterations

Coefficient covariance computed using outer product of gradients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.986314	5.702136	0.699091	0.4851
AR(1)	0.046049	0.052571	0.875938	0.3819
SIGMASQ	7748.593	471.0809	16.44854	0.0000
R-squared	0.002120	Mean dependent var		3.962264
Adjusted R-squared	-0.005497	S.D. dependent var		88.28629
S.E. of regression	88.52862	Akaike info criterion		11.81579
Sum squared resid	2053377.	Schwarz criterion		11.85632
Log likelihood	-1562.593	Hannan-Quinn criter.		11.83208
F-statistic	0.278318	Durbin-Watson stat		1.984196
Prob(F-statistic)	0.757280			
Inverted AR Roots	.05			

Date: 05/06/23 Time: 21:22

Sample (adjusted): 2 266

Q-statistic probabilities adjusted for 1 ARMA term

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
		1 0.004 0.004	0.0048		
█	█	2 -0.089 -0.089	2.1160	0.146	
		3 0.022 0.023	2.2525	0.324	
█	█	4 -0.065 -0.073	3.3865	0.336	
█	█	5 0.102 0.109	6.2295	0.183	
		6 0.035 0.020	6.5699	0.255	
█	█	7 -0.057 -0.035	7.4458	0.282	
█	█	8 -0.106 -0.113	10.531	0.160	
		9 -0.029 -0.023	10.769	0.215	
█	█	10 -0.072 -0.099	12.202	0.202	
		11 -0.016 -0.026	12.276	0.267	
█	█	12 -0.034 -0.057	12.598	0.320	
		13 0.035 0.062	12.936	0.374	
█	█	14 -0.090 -0.108	15.227	0.293	
█	█	15 0.053 0.080	16.016	0.312	
█	█	16 0.155 0.124	22.885	0.087	
		17 -0.013 0.010	22.933	0.116	
█	█	18 0.007 -0.016	22.947	0.151	
█	█	19 -0.052 -0.049	23.734	0.164	
		20 -0.017 -0.024	23.818	0.203	
█	█	21 0.069 0.024	25.213	0.193	
█	█	22 -0.056 -0.094	26.136	0.201	
		23 0.017 0.056	26.217	0.242	
█	█	24 0.026 0.036	26.423	0.281	
		25 0.053 0.106	27.257	0.293	
█	█	26 -0.012 -0.017	27.298	0.341	
█	█	27 -0.029 0.014	27.552	0.381	
█	█	28 0.067 0.059	28.891	0.366	
		29 0.043 0.037	29.433	0.391	
█	█	30 -0.017 -0.029	29.519	0.438	
█	█	31 -0.085 -0.102	31.682	0.382	
█	█	32 -0.074 -0.096	33.332	0.354	
		33 0.080 0.088	35.265	0.316	
█	█	34 -0.019 -0.054	35.381	0.356	
█	█	35 -0.075 -0.008	37.109	0.328	
		36 0.005 0.009	37.117	0.372	

## ARIMA 16,1,1

Dependent Variable: D(PTBA)  
 Method: ARMA Maximum Likelihood (OPG - BHHH)  
 Date: 05/06/23 Time: 21:23  
 Sample: 2 266  
 Included observations: 265  
 Convergence achieved after 17 iterations  
 Coefficient covariance computed using outer product of gradients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.564791	6.660685	0.685334	0.4937
AR(16)	0.156422	0.051725	3.024111	0.0027
MA(1)	0.050442	0.053034	0.951125	0.3424
SIGMASQ	7545.761	474.1762	15.91341	0.0000
R-squared	0.028241	Mean dependent var		3.962264
Adjusted R-squared	0.017072	S.D. dependent var		88.28629
S.E. of regression	87.52945	Akaike info criterion		11.79831
Sum squared resid	1999627.	Schwarz criterion		11.85235
Log likelihood	-1559.276	Hannan-Quinn criter.		11.82002
F-statistic	2.528389	Durbin-Watson stat		1.998888
Prob(F-statistic)	0.057782			
Inverted AR Roots	.89	.82+.34i	.82-.34i	.63+.63i
	.63+.63i	.34-.82i	.34+.82i	-.00+.89i
	-.00-.89i	-.34-.82i	-.34+.82i	-.63+.63i
	-.63+.63i	-.82-.34i	-.82+.34i	-.89
Inverted MA Roots	-.05			

Date: 05/06/23 Time: 21:24  
 Sample (adjusted): 2 266  
 Q-statistic probabilities adjusted for 2 ARMA terms

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob	
		1	-0.004	-0.004	0.0041	
		2	-0.077	-0.077	1.5836	
		3	0.029	0.029	1.8107	0.178
		4	-0.062	-0.068	2.8446	0.241
		5	0.098	0.104	5.4839	0.140
		6	0.056	0.045	6.3331	0.176
		7	-0.056	-0.037	7.1927	0.207
		8	-0.098	-0.102	9.8216	0.132
		9	-0.028	-0.026	10.038	0.186
		10	-0.078	-0.097	11.706	0.165
		11	-0.028	-0.043	11.930	0.217
		12	-0.037	-0.057	12.308	0.265
		13	0.024	0.047	12.467	0.330
		14	-0.077	-0.083	14.129	0.293
		15	0.070	0.090	15.506	0.277
		16	0.023	0.003	15.651	0.335
		17	-0.027	-0.003	15.861	0.391
		18	0.024	-0.017	16.032	0.451
		19	-0.048	-0.046	16.705	0.475
		20	-0.008	-0.034	16.723	0.542
		21	0.072	0.047	18.231	0.507
		22	-0.065	-0.086	19.458	0.492
		23	0.018	0.046	19.552	0.550
		24	0.044	0.025	20.131	0.575
		25	0.063	0.111	21.317	0.562
		26	-0.002	-0.028	21.318	0.620
		27	-0.024	0.008	21.486	0.665
		28	0.055	0.038	22.395	0.667
		29	0.040	0.051	22.863	0.692
		30	0.001	-0.039	22.864	0.740
		31	-0.090	-0.091	25.335	0.661
		32	-0.100	-0.100	28.385	0.550
		33	0.068	0.083	29.805	0.527
		34	-0.016	-0.049	29.881	0.574
		35	-0.077	-0.026	31.721	0.531
		36	0.012	0.003	31.764	0.578

## ARIMA 1,1,16

Dependent Variable: D(PTBA)  
 Method: ARMA Maximum Likelihood (OPG - BHHH)  
 Date: 05/06/23 Time: 21:25  
 Sample: 2 266  
 Included observations: 265  
 Convergence achieved after 13 iterations  
 Coefficient covariance computed using outer product of gradients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.580203	6.621475	0.691719	0.4897
AR(1)	0.040531	0.054409	0.744924	0.4570
MA(16)	0.189608	0.056841	3.335768	0.0010
SIGMASQ	7503.385	477.5692	15.71162	0.0000
R-squared	0.033698	Mean dependent var		3.962264
Adjusted R-squared	0.022591	S.D. dependent var		88.28629
S.E. of regression	87.28333	Akaike info criterion		11.79339
Sum squared resid	1988397.	Schwarz criterion		11.84743
Log likelihood	-1558.624	Hannan-Quinn criter.		11.81510
F-statistic	3.034001	Durbin-Watson stat		1.984746
Prob(F-statistic)	0.029774			
Inverted AR Roots	.04			
Inverted MA Roots	.88+.18i	.88-.18i	.75+.50i	.75-.50i
	.50+.75i	.50-.75i	.18+.88i	.18-.88i
	-.18+.88i	-.18-.88i	-.50+.75i	-.50-.75i
	-.75+.50i	-.75-.50i	-.88+.18i	-.88-.18i

Date: 05/06/23 Time: 21:26  
 Sample (adjusted): 2 266  
 Q-statistic probabilities adjusted for 2 ARMA terms

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
		1 0.003	0.003	0.0026	
		2 -0.077	-0.077	1.6092	
		3 0.027	0.028	1.8131	0.178
		4 -0.058	-0.065	2.7274	0.256
		5 0.093	0.099	5.0885	0.165
		6 0.060	0.049	6.0845	0.193
		7 -0.052	-0.035	6.8316	0.233
		8 -0.096	-0.099	9.3778	0.153
		9 -0.029	-0.027	9.6152	0.211
		10 -0.081	-0.099	11.454	0.177
		11 -0.031	-0.045	11.715	0.230
		12 -0.033	-0.053	12.015	0.284
		13 0.019	0.041	12.113	0.355
		14 -0.074	-0.079	13.637	0.324
		15 0.072	0.093	15.119	0.300
		16 -0.005	-0.024	15.126	0.370
		17 -0.024	-0.001	15.295	0.430
		18 0.023	-0.020	15.453	0.492
		19 -0.046	-0.042	16.053	0.520
		20 -0.008	-0.038	16.071	0.588
		21 0.073	0.053	17.597	0.549
		22 -0.064	-0.084	18.782	0.536
		23 0.016	0.045	18.860	0.594
		24 0.047	0.021	19.506	0.614
		25 0.062	0.108	20.633	0.603
		26 -0.001	-0.033	20.633	0.660
		27 -0.017	0.013	20.714	0.708
		28 0.049	0.029	21.443	0.719
		29 0.041	0.058	21.957	0.740
		30 0.002	-0.045	21.958	0.783
		31 -0.098	-0.089	24.834	0.687
		32 -0.073	-0.074	26.446	0.652
		33 0.066	0.082	27.762	0.633
		34 -0.016	-0.045	27.837	0.677
		35 -0.075	-0.028	29.546	0.640
		36 0.008	0.002	29.568	0.685

## ARIMA 0,1,16

Dependent Variable: D(PTBA)  
 Method: ARMA Maximum Likelihood (OPG - BHHH)  
 Date: 05/06/23 Time: 21:27  
 Sample: 2 266  
 Included observations: 265  
 Convergence achieved after 11 iterations  
 Coefficient covariance computed using outer product of gradients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.558157	6.343513	0.718554	0.4731
MA(16)	0.191509	0.056185	3.408539	0.0008
SIGMASQ	7515.342	472.4185	15.90823	0.0000
R-squared	0.032159	Mean dependent var		3.962264
Adjusted R-squared	0.024770	S.D. dependent var		88.28629
S.E. of regression	87.18598	Akaike info criterion		11.78748
Sum squared resid	1991566.	Schwarz criterion		11.82800
Log likelihood	-1558.841	Hannan-Quinn criter.		11.80376
F-statistic	4.352752	Durbin-Watson stat		1.910344
Prob(F-statistic)	0.013815			
Inverted MA Roots	.88+.18i	.88-.18i	.75-.50i	.75+.50i
	.50-.75i	.50+.75i	.18-.88i	.18+.88i
	-.18-.88i	-.18+.88i	-.50-.75i	-.50+.75i
	-.75+.50i	-.75-.50i	-.88-.18i	-.88+.18i

Date: 05/06/23 Time: 21:28  
 Sample (adjusted): 2 266  
 Q-statistic probabilities adjusted for 1 ARMA term

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
		1 0.040	0.040	0.4305	
		2 -0.075	-0.076	1.9294	0.165
		3 0.022	0.028	2.0601	0.357
		4 -0.053	-0.062	2.8275	0.419
		5 0.093	0.103	5.1807	0.269
		6 0.062	0.044	6.2370	0.284
		7 -0.054	-0.041	7.0249	0.319
		8 -0.099	-0.098	9.7441	0.204
		9 -0.037	-0.028	10.119	0.257
		10 -0.084	-0.100	12.091	0.208
		11 -0.035	-0.043	12.441	0.257
		12 -0.033	-0.050	12.753	0.310
		13 0.015	0.040	12.813	0.383
		14 -0.070	-0.076	14.182	0.361
		15 0.069	0.095	15.540	0.342
		16 -0.005	-0.029	15.548	0.413
		17 -0.023	-0.001	15.705	0.474
		18 0.021	-0.022	15.832	0.536
		19 -0.045	-0.043	16.414	0.564
		20 -0.007	-0.034	16.427	0.629
		21 0.070	0.052	17.840	0.598
		22 -0.060	-0.084	18.896	0.592
		23 0.016	0.048	18.967	0.647
		24 0.050	0.024	19.712	0.659
		25 0.064	0.106	20.917	0.644
		26 0.001	-0.036	20.917	0.697
		27 -0.014	0.015	20.979	0.743
		28 0.050	0.030	21.724	0.751
		29 0.043	0.055	22.282	0.768
		30 -0.000	-0.051	22.282	0.808
		31 -0.100	-0.090	25.328	0.709
		32 -0.074	-0.067	26.984	0.673
		33 0.062	0.083	28.152	0.662
		34 -0.016	-0.049	28.233	0.704
		35 -0.075	-0.026	29.966	0.666
		36 0.001	0.001	29.967	0.710

### 16,1,0

Dependent Variable: D(PTBA)  
 Method: ARMA Maximum Likelihood (OPG - BHHH)  
 Date: 05/06/23 Time: 21:28  
 Sample: 2 266  
 Included observations: 265  
 Convergence achieved after 12 iterations  
 Coefficient covariance computed using outer product of gradients

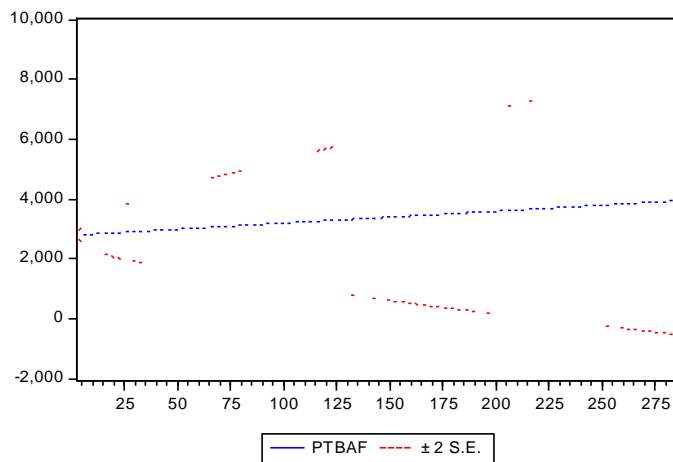
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.538000	6.331184	0.716770	0.4742
AR(16)	0.157719	0.051515	3.061591	0.0024
SIGMASQ	7561.707	465.6250	16.23991	0.0000
R-squared	0.026188	Mean dependent var		3.962264
Adjusted R-squared	0.018754	S.D. dependent var		88.28629
S.E. of regression	87.45451	Akaike info criterion		11.79289
Sum squared resid	2003852.	Schwarz criterion		11.83342
Log likelihood	-1559.558	Hannan-Quinn criter.		11.80917
F-statistic	3.522830	Durbin-Watson stat		1.906427
Prob(F-statistic)	0.030922			
Inverted AR Roots	.89	.82+.34i	.82-.34i	.63+.63i
	.63+.63i	.34-.82i	.34+.82i	-.00+.89i
	-.00-.89i	-.34-.82i	-.34+.82i	-.63+.63i
	-.63+.63i	-.82-.34i	-.82+.34i	-.89

Date: 05/06/23 Time: 21:29  
 Sample (adjusted): 2 266  
 Q-statistic probabilities adjusted for 1 ARMA term

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
		1 0.042	0.042	0.4742	
		2 -0.076	-0.077	2.0113	0.156
		3 0.022	0.029	2.1394	0.343
		4 -0.055	-0.064	2.9715	0.396
		5 0.098	0.109	5.5914	0.232
		6 0.058	0.038	6.5183	0.259
		7 -0.058	-0.044	7.4513	0.281
		8 -0.102	-0.101	10.310	0.172
		9 -0.037	-0.027	10.690	0.220
		10 -0.081	-0.098	12.492	0.187
		11 -0.034	-0.042	12.819	0.234
		12 -0.037	-0.053	13.201	0.280
		13 0.018	0.046	13.297	0.348
		14 -0.072	-0.081	14.756	0.323
		15 0.067	0.095	16.030	0.312
		16 0.023	-0.004	16.179	0.370
		17 -0.025	-0.003	16.353	0.429
		18 0.021	-0.019	16.481	0.490
		19 -0.048	-0.047	17.133	0.514
		20 -0.007	-0.030	17.146	0.580
		21 0.069	0.044	18.513	0.554
		22 -0.061	-0.086	19.579	0.548
		23 0.017	0.051	19.660	0.604
		24 0.049	0.029	20.365	0.620
		25 0.066	0.109	21.645	0.600
		26 0.000	-0.033	21.645	0.656
		27 -0.021	0.011	21.780	0.701
		28 0.056	0.040	22.703	0.701
		29 0.042	0.047	23.237	0.721
		30 -0.001	-0.046	23.237	0.766
		31 -0.095	-0.094	25.993	0.675
		32 -0.102	-0.091	29.128	0.563
		33 0.063	0.085	30.321	0.552
		34 -0.016	-0.055	30.402	0.597
		35 -0.078	-0.023	32.267	0.553
		36 0.003	0.003	32.269	0.601



## HASIL PREDIKSI



Forecast: PTBAF

Actual: PTBA

Forecast sample: 1 286

Adjusted sample: 3 286

Included observations: 284

Root Mean Squared Error 627.349:

Mean Absolute Error 524.285:

Mean Abs. Percent Error 13.3328:

Theil Inequality Coef. 0.087655

Bias Proportion 0.43834:

Variance Proportion 0.01909:

Covariance Proportion 0.54255:

Theil U2 Coefficient 6.66806:

Symmetric MAPE 14.5007:

### LAMPIRAN III


**KEMENTERIAN AGAMA REPUBLIK INDONESIA**  
**UNIVERSITAS ISLAM NEGERI ANTASARI BANJARMASIN**  
**FAKULTAS EKONOMI DAN BISNIS ISLAM**  
 Jalan A. Yani Km. 4.5 Telp. (0511) 6783434, 6777955 Banjarmasin 70235  
 e-mail: febi@uin-antasari.ac.id website: www.febl.uin-antasari.ac.id

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**PENETAPAN JUDUL DAN PEMBIMBING SKRIPSI**  
 Nomor : 3282/Un.14/III.5/PP.00.9/08/2022

Setelah kami mempelajari dan diadakan perbaikan seperlunya atas rencana penelitian Saudara (i):

Nama	: Auni Ladunniyah
NIM	: 190105010059
Program Studi	: S.1 / Ekonomi Syariah
Judul	: Peramalan Harga Saham Sektor Pertambangan di Jakarta Islamic Index (JII) untuk Membantu Trader Mengambil Keputusan Pembelian Saham

Kami dapat menyetujui rencana penelitian (proposal) tersebut. Sebagai pembimbing kami tetapkan sebagai berikut:

Dosen Pembimbing Skripsi : Prof. Dr. H. Fathurrahman Azhari, M.H.I.

Saudara (i) diharapkan segera melakukan konsultasi dengan Dosen Pembimbing Skripsi guna mendapatkan arahan dalam rangka persiapan pembuatan skripsi selanjutnya.

Demikian penetapan ini dibuat untuk diketahui dan dilaksanakan dengan semestinya.

Banjarmasin, 29 Agustus 2022  
 an. Dekan  
 Wakil Dekan Bidang Akademik dan  
 Kelembagaan

  
Dr. Taki Mubarak, S.E., M.Si  
 NIP. 19771031 200212 1 002



Tembusan:

1. Rektor UIN Antasari (sebagai laporan);
2. Dosen Pembimbing;
3. Mahasiswa (i) ybs;
4. Arsip.



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e-mail: febi@uin-antasari.ac.id website: www.febl.uin-antasari.ac.id

**PENETAPAN PERUBAHAN JUDUL SKRIPSI**

Nomor : 0427/Un.14/III.5/PP.00.9/02/2023

Memperhatikan surat permohonan Saudara (i) dan hasil rapat Tim Seleksi Proposal Skripsi berkenaan dengan perubahan judul, maka kami dapat menyetujui dan menetapkan judul yang baru terhadap skripsi Saudara (i):

Nama : Auni Ladunniyah  
NIM : 190105010059  
Program Studi : S.1 / Ekonomi Syariah  
Judul Terdahulu : Peramalan Harga Saham Sektor Pertambangan di Jakarta Islamic Index (JII) untuk Membantu Trader Mengambil Keputusan Pembelian Saham

Judul Baru : Prediksi Harga Saham Sektor Pertambangan di Jakarta Islamic Index (JII) untuk Membantu Trader Mengambil Keputusan Pembelian Saham

Kami dapat menyetujui usul perubahan judul skripsi dengan pembimbing sebagai berikut:

Dosen Pembimbing Skripsi : Prof. Dr. H. Fathurrahman Azhari, M.H.I.

Saudara (i) diharapkan segera melakukan konsultasi dengan Dosen Pembimbing Skripsi guna mendapatkan arahan dalam rangka persiapan pembuatan skripsi selanjutnya.

Demikian penetapan ini dibuat untuk diketahui dan dilaksanakan dengan semestinya.

Banjarmasin, 03 Februari 2023

an. Dekan

Wakil Dekan Bidang Akademik dan  
Kelembagaan



*[Signature]*  
Dr. Zaki Mubarak, S.E., M.Si  
NIP. 19771031 200212 1 002

Tembusan:

1. Rektor UIN Antasari (sebagai laporan);
2. Dosen Pembimbing I dan Dosen Pembimbing II;
3. Mahasiswa (i) ybs;
4. Arsip.



KEMENTERIAN AGAMA REPUBLIK INDONESIA  
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e-mail: febi@uin-antasari.ac.id febu@unntasari@gmail.com website: www.fe.uin-antasari.ac.id

Banjarmasin, 12 Desember 2022

Nomor : B-1951/Uj.14/III.5/BIRO.SKRIPSI/PP.00.9/12/2022  
Lampiran : Satu berkas  
Hal : Penetapan Waktu Ujian  
Proposal Skripsi

Kepada  
Yth. Auni Ladunniyah / 190105010059  
Mahasiswa/i Jurusan S1 Ekonomi Syariah  
Fakultas Ekonomi dan Bisnis Islam UIN Antasari  
Banjarmasin

*Assalamu'alaikum wr. wb.*

Berdasarkan surat permohonan Saudara mengenai penetapan waktu ujian proposal skripsi, maka dengan ini ditetapkan Ujian Proposal Skripsi atas nama:

Nama / NIM	: Auni Ladunniyah / 190105010059
Jurusan	: Ekonomi Syariah
Judul	: Peramalan Harga Saham Sektor Pertambangan di Jakarta Islamic Index (JII) untuk Membantu Trader Mengambil Keputusan Pembelian Saham

pada:

Hari/Tanggal	: Rabu, 14 Desember 2022
Waktu	: 12.45 - 13.30
Tempat	: Ruang Munaqasyah 1

dengan susunan tim penguji sebagai berikut:

Penguji (Pembimbing)	: Prof. Dr. H. Fathurrahman Azhari, MHI
Penguji (Eksternal)	: Ansharullah, S.Ag., M.Fil.
Notulis	: Muhammad Qamaruddin, ME

Demikian surat penetapan ini dibuat untuk dilaksanakan sebagaimana mestinya.

*Wassalamu'alaikum wr. wb.*



Ketua Biro Skripsi

H. Badrian, M.Ag.

Tembusan:

- Yth. 1. Penguji (Pembimbing)
- 2. Penguji (Eksternal)
- 3. Notulis

-Arsip

Catatan:

Diharap pelaksanaan ujian tepat waktu untuk menghindari tertundanya ujian-ujian berikutnya

No. : 446



KEMENTERIAN AGAMA REPUBLIK INDONESIA  
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**SURAT KETERANGAN**

Nomor: B-1892/Un.14/III.5/PP.00.9/12/2022

Ketua Biro Skripsi Fakultas Ekonomi Dan Bisnis Islam UIN Antasari, menyatakan dengan sebenarnya bahwa:

Nama	: Auni Ladunniyah
NIM	: 190105010059
Jurusan	: Ekonomi Syariah
Judul	: Peramalan Harga Saham Sektor Pertambangan di Jakarta Islamic Index (JII) untuk Membantu Trader Mengambil Keputusan Pembelian Saham

telah melaksanakan ujian proposal skripsi pada:

Hari/Tanggal	: Rabu, 14 Desember 2022
Waktu	: 12.45 - 13.30
Tempat	: Ruang Munaaqasyah 1

dengan susunan tim penguji sebagai berikut:

Penguji (Pembimbing)	: Prof. Dr. H. Fathurrahman Azhari, MHI
Penguji Eksternal	: Ansharullah, S.Ag., M.Fil.I.
Notulis	: Muhammad Gamaruddin, ME

Demikian surat keterangan ini dibuat untuk dipergunakan sebagaimana mestinya.

Banjarmasin, 16 Desember 2022



Ketua Biro Skripsi

H. Badrian, M.Ag.  
19730717 199703 1 002



KEMENTERIAN AGAMA REPUBLIK INDONESIA  
 UNIVERSITAS ISLAM NEGERI ANTASARI BANJARMASIN  
 FAKULTAS EKONOMI DAN BISNIS ISLAM  
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 e-mail: [info@uin-antasari.ac.id](mailto:info@uin-antasari.ac.id) / website: [www.feb.uin-antasari.ac.id](http://www.feb.uin-antasari.ac.id)

Nomor : B-1327/Un.14/III.5/TL.00/04/2023  
 Sifat : -  
 Lamp : 1 Berkas  
 Hal : Permohonan Izin Riset

26 April 2023

Yth.

1. Pimpinan Bursa Efek Indonesia
2. Pimpinan Yahoofinance
3. Kepala Badan Pusat Statistik

*Assalamu'alaikum wr.wb.*

Dengan hormat, Yang bertanda tangan di bawah ini Dekan Fakultas Ekonomi dan Bisnis Islam UIN Antasari menyampaikan permohonan untuk diberikan izin riset kepada :

Nama	: Auni Ladunniyah
NIM	: 190105010059
Tempat Tanggal Lahir	: Karang Mulya, 12 Agustus 2001
Semester / Jurusan	: VIII / Ekonomi Syariah
Tahun Akademik	: 2022/2023
Alamat	: Jl. Gatot Subroto V Kelurahan Kebun Bunga Kec. Banjarmasin Timur Kota Banjarmasin
Waktu Riset	: 27 April s.d 27 Juni 2023

Judul Skripsi : **Prediksi Harga Saham Sektor Pertambangan di Jakarta Islamic Index (JII) untuk Membantu Trader Mengambil Keputusan Pembelian Saham** (sebagaimana proposal terlampir).

Sehubungan dengan hal tersebut, kami mohon agar kiranya berkenan membantu memberikan data dan informasi yang diperlukan terkait dengan riset tersebut.

Demikian permohonan ini disampaikan, atas perhatian dan kerjasamanya diucapkan terima kasih.

*Wassalamu'alaikum wr.wb.*



Dekan,

Sukarni

**SURAT PERNYATAAN TELAH MELAKSANAKAN RISET**

Saya yang bertanda tangan di bawah ini :

Nama : Auni Ladunniyah

NIM : 190105010059

Jurusan : Ekonomi Syariah

Semester : VIII (delapan)

Alamat : Jl. Gatot Subroto V Kelurahan Kebun Bunga, Kec. Banjarmasin Timur, Kota Banjarmasin

Dengan ini menyatakan bahwa telah melaksanakan riset ke website resmi Bursa Efek Indonesia, Yahoofinance, dan Badan Pusat Statistik berupa data perusahaan sektor pertambangan batubara yang konsisten di Jakarta Islamic Index selama periode 2019-2022, dan daftar harga saham pada perusahaan batubara yang konsisten berada di Jakarta Islamic Index. Sesuai dengan Judul penelitian ini yaitu "Prediksi Harga Saham Sektor Pertambangan di Jakarta Islamic Indeks (JII) untuk membantu Trader Mengambil Keputusan Pembelian Saham" pada tanggal 1 Februari - 31 Maret.

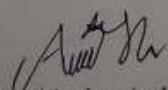
Dengan surat pernyataan ini saya buat dengan sebenar-benarnya sebagai pernyataan untuk mengikuti Ujian Munaqasah di UIN Antasari Banjarmasin. Saya bersedia menerima konsekuensi hukum apabila pernyataan ini dikemudian hari terdapat kesalahan.


Banjarmasin, 09 Mei 2023

Mengetahui,

Mahasiswa yang bersangkutan

Dosen Pembimbing

  
Auni Ladunniyah  
NIM. 190105010059

  
Prof. Dr. H. Fathurrahman Azhari, M.HI  
NIP. 196006091988031003



KEMENTERIAN AGAMA REPUBLIK INDONESIA

UNIVERSITAS ISLAM NEGERI

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e-mail: [fbibm@uin-antasari.ac.id](mailto:fbibm@uin-antasari.ac.id) / [fbbi.uinantasari@gmail.com](mailto:fbbi.uinantasari@gmail.com) website: [www.fbbl.uin-antasari.ac.id](http://www.fbbl.uin-antasari.ac.id)

**CATATAN KONSULTASI BIMBINGAN SKRIPSI**

Nama : Auni Ladunniyah

NIM : 190105010059

Jurusan : Ekonomi Syariah

Judul Skripsi : Prediksi Harga Saham Sektor Pertambangan di Jakarta Islamic Index (JII) Untuk Membantu Trader Mengambil Keputusan Pembelian Saham

Pembimbing I : Prof. Dr. H. Fathurrahman Azhari, M.HI.

Pembimbing II : Ansharullah S.Ag., M.Fil.I.

CATATAN PEMBIMBING I	CATATAN PEMBIMBING II
<p>konsep &amp; edit sem- kon bagas bules Rahman Ra. d. Kim Slipps 28/3 2023 f</p>	

**Catatan:**

- Setiap Konsultasi lembar catatan ini harus dibawa untuk diisi oleh Pembimbing I / Pembimbing II.
- Konsultasi berikutnya harus membawa lembar serupa yang masih kosong (lembaran ini dapat dicopy).





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**CATATAN KONSULTASI BIMBINGAN SKRIPSI**

Nama : Auni Ladunniyah


NIM : 190105010059

Jurusan : Ekonomi Syariah

Judul Skripsi : Prediksi Harga Saham Sektor Pertambangan di Jakarta Islamic Index (JII) Untuk Membantu Trader Mengambil Keputusan Pembelian Saham

Pembimbing I : Prof. Dr. H. Fathurrahman Azhari, M.HI.

Pembimbing II : Ansharullah S.Ag., M.Fil.I.

CATATAN PEMBIMBING I	CATATAN PEMBIMBING II
<p>-Tambah halaman karena masih kurang min 70 hlm</p> <p>-kurangi plagiasinya</p> <p>-baik penulisannya.</p> <p></p> <p>1 may 2023</p>	

**Catatan:**

- Setiap Konsultasi lembar catatan ini harus dibawa untuk diisi oleh Pembimbing I / Pembimbing II.
- Konsultasi berikutnya harus membawa lembar serupa yang masih kosong (lembaran ini dapat dicopy).



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**CATATAN KONSULTASI BIMBINGAN SKRIPSI**

Nama : Auni Ladunniyah  
NIM : 190105010059  
Jurusan : Ekonomi Syariah  
Judul Skripsi : Prediksi Harga Saham Sektor Pertambangan di Jakarta Islamic Index (JII) Untuk  
Membantu Trader Mengambil Keputusan Pembelian Saham  
Pembimbing : Prof. Dr. H. Fathurrahman Azhari, M.HI.

CATATAN

- Bulan prediksi sesuaikan dengan tanggal riset
- Kutipan bahasa Arab Tambah (ayat Al-Qur'an)
- Rumusan masalah sesuaikan dengan isi

09 Mei 2023

Catatan:

- a. Setiap Konsultasi lembar catatan ini harus dibawa untuk diisi oleh Pembimbing I / Pembimbing II.
- b. Konsultasi berikutnya harus membawa lembar serupa yang masih kosong (lembaran ini dapat dicopy).



**KEMENTERIAN AGAMA REPUBLIK INDONESIA**

**UNIVERSITAS ISLAM NEGERI**

**ANTASARI BANJARMASIN**

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**CATATAN KONSULTASI BIMBINGAN SKRIPSI**

Nama : Auni Ladunniyah  
 NIM : 190105010059  
 Jurusan : Ekonomi Syariah  
 Judul Skripsi : Prediksi Harga Saham Sektor Pertambangan di Jakarta Islamic Index (JII) Untuk Membantu Trader Mengambil Keputusan Pembelian Saham  
 Pembimbing : Prof. Dr. H. Fathurrahman Azhari, M.HI.

**CATATAN**

- ① Pada BAB II beri judul sesuai isi
- ② Kutipan berbahasa Asing min. 5
- ③ Kesimpulan sesuaikan dengan rumusan masalah

11 Mei 2023

**Catatan:**

- a. Setiap Konsultasi lembar catatan ini harus dibawa untuk diisi oleh Pembimbing I / Pembimbing II.
- b. Konsultasi berikutnya harus membawa lembar serupa yang masih kosong (lembaran ini dapat dicopy).



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UNIVERSITAS ISLAM NEGERI  
ANTASARI BANJARMASIN  
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Jalan A. Yani Km. 4.5 Banjarmasin 71236  
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Website: [www.uin-antasari.ac.id](http://www.uin-antasari.ac.id) | [www.feb.uin-antasari.ac.id](http://www.feb.uin-antasari.ac.id)

### CATATAN KONSULTASI BIMBINGAN SKRIPSI

Nama : Ami Ladhunyah  
NIM : 190105010059  
Jurusan : Ekonomi Syariah  
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Membrane Trader Mengambil Keputusan Pembelian Saham  
Pembimbing : Prof. Dr. H. Fathurahman Azhari, M.H.

#### CATATAN

- Perbaiki Penulisan Daftar Pustaka
- Perbaiki Penulisan yang typo /berbahasa asing
- Tambahkan isi pada BAB V

31 Mei 2023

#### Catatan:

- a. Setiap Konsultasi lembar catatan ini harus dibawa untuk diisi oleh Pembimbing I / Pembimbing II.
- b. Konsultasi berikutnya harus membawa lembar serupa yang masih kosong (lembaran ini dapat dicopy).



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**CATATAN KONSULTASI BIMBINGAN SKRIPSI**

Nama : Auni Ladanniyah  
NIM : 190105010059  
Jurusan : Ekonomi Syariah  
Judul Skripsi : Prediksi Harga Saham Sektor Pertambangan di Jakarta Islamic Index (JII) Untuk Membantu Trader Mengambil Keputusan Pembelian Saham  
Pembimbing : Prof. Dr. H. Fathurrahman Azhari, M.HI.

**CATATAN**

Acc A'yun Sidang

05 Juni 2023

**Catatan:**

- Setiap Konsultasi lembar catatan ini harus dibawa untuk diisi oleh Pembimbing I / Pembimbing II.
- Konsultasi berikutnya harus membawa lembar serupa yang masih kosong (lembaran ini dapat dicopy).



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### PENETAPAN BEBAS PLAGIASI

Nomor : B - 2/Un. 14/III.5/ES.S1/PP.00.9/06/2023

Memperhatikan surat permohonan Saudara (i) dan hasil Rapat Tim Pemeriksa Plagiasi Tugas Akhir/ Skripsi Mahasiswa Jurusan Ekonomi Syariah Fakultas Ekonomi dan Bisnis Islam UIN Antasari Banjarmasin, maka kami dapat memberikan Surat Keterangan Bebas Plagiasi skripsi atas nama Saudara (i):

Nama : Auni Ladunniyah  
 NIM : 190105010059  
 Program Studi : Ekonomi Syariah  
 Judul Skripsi : PREDIKSI HARGA SAHAM SEKTOR  
 PERTAMBANGAN DI JAKARTA ISLAMIC INDEX (JII)  
 UNTUK MEMBANTU TRADER MENGAMBIL  
 KEPUTUSAN PEMBELIAN SAHAM

Dengan demikian, skripsi Saudara (i) dinyatakan:

**BEBAS PLAGIASI**  
 Dengan Persentase Indikasi Plagiat: 14%

Demikian penetapan ini dibuat untuk diketahui dan dilaksanakan dengan semestinya.

Banjarmasin, 5 Juni 2023  
 Ketua Jurusan



Rohana Faridah