

LAMPIRAN

Lampiran I

Data Penelitian

Tahun	Impor Beras (ton)	Produksi Beras (ton)	Konsumsi Beras (ton)	Jumlah Penduduk (juta jiwa)	Harga Beras (Rp/ton)	Kurs Valuta Asing (Rp/\$)
1999	294.200	50.866.387	29.132.438	208	2.800.000	7.100
2000	4.751.398	51.898.852	32.651.340	211	2.548.000	9.595
2001	1.355.666	50.460.782	31.659.095	214	2.450.000	10.348
2002	644.733	51.489.694	32.304.634	217	2.663.000	8.895
2003	1.805.380	52.137.604	32.711.133	220	2.704.000	8.423
2004	1.428.506	54.088.468	33.935.105	223	2.600.000	9.244
2005	236.867	54.151.097	33.974.398	336	2.981.000	9.781
2006	189.617	54.454.937	34.165.027	229	4.136.000	8.975
2007	1.406.848	57.157.435	35.860.575	232	4.808.000	9.372
2008	289.689	60.325.925	37.848.485	235	5.058.000	10.895
2009	250.473	64.398.890	40.403.864	238	5.274.000	9.353
2010	687.581	66.469.394	41.702.898	242	6.175.000	8.946
2011	2.750.476	65.756.904	41.255.882	245	6.580.000	9.023
2012	1.810.372	69.056.126	43.325.813	248	7.652.000	9.622
2013	472.665	71.279.709	44.720.889	251	7.914.000	12.128
2014	844.164	70.846.465	44.449.072	254	8.941.000	12.378
2015	861.601	75.397.841	45.442.365	257	10.915.000	13.802
2016	1.283.178	79.141.325	46.465.795	258	11.511.000	13.830
2017	305.274	81.383.451	45.227.683	262	11.535.000	13.531
2018	2.250.051	83.029.057	47.293.243	265	12.013.000	14.302

Lampiran II

Uji Stasioneritas

a. Level (Intersept dan Trend)

Null Hypothesis: Unit root (individual unit root process)

Series: Y, X1, X2, X3, X4, X5

Date: 11/20/19 Time: 23:04

Sample: 1999 2018

Exogenous variables: Individual effects, individual linear trends

Automatic selection of maximum lags

Automatic lag length selection based on SIC: 0

Total (balanced) observations: 114

Cross-sections included: 6

Method	Statistic	Prob.**
ADF - Fisher Chi-square	26.5766	0.0089
ADF - Choi Z-stat	-2.36414	0.0090

** Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

Intermediate ADF test results UNTITLED

Series	Prob.	Lag	Max Lag	Obs
Y	0.0079	0	3	19
X1	0.5008	0	3	19
X2	0.3802	0	3	19
X3	0.0136	0	3	19
X4	0.1440	0	3	19
X5	0.5789	0	3	19

b. 1st difference (Intersept dan Trend)

Null Hypothesis: Unit root (individual unit root process)

Series: Y, X1, X2, X3, X4, X5

Date: 11/20/19 Time: 23:04

Sample: 1999 2018

Exogenous variables: Individual effects, individual linear trends

Automatic selection of maximum lags

Automatic lag length selection based on SIC: 0 to 1

Total number of observations: 105

Cross-sections included: 6

Method	Statistic	Prob.**
ADF - Fisher Chi-square	63.8512	0.0000
ADF - Choi Z-stat	-6.16009	0.0000

** Probabilities for Fisher tests are computed using an asymptotic Chi

-square distribution. All other tests assume asymptotic normality.

Intermediate ADF test results D(UNTITLED)

Series	Prob.	Lag	Max Lag	Obs
D(Y)	0.0020	1	3	17
D(X1)	0.0324	1	3	17
D(X2)	0.0017	0	3	18
D(X3)	0.0002	0	3	18
D(X4)	0.0486	0	3	18
D(X5)	0.0124	0	3	18

Lampiran III
Uji Kointegrasi (*Bound Test*)

ARDL Bounds Test
Date: 11/20/19 Time: 23:06
Sample: 2000 2018
Included observations: 19
Null Hypothesis: No long-run relationships exist

Test Statistic	Value	k
F-statistic	5.180713	5

Critical Value Bounds

Significance	I0 Bound	I1 Bound
10%	2.08	3
5%	2.39	3.38
2.5%	2.7	3.73
1%	3.06	4.15

Lampiran IV
Estimasi ARDL

Dependent Variable: Y
Method: ARDL
Date: 11/20/19 Time: 23:08
Sample (adjusted): 2000 2018
Included observations: 19 after adjustments
Maximum dependent lags: 1 (Automatic selection)
Model selection method: Akaike info criterion (AIC)
Dynamic regressors (1 lag, automatic): X1 X2 X3 X4 X5
Fixed regressors: C
Number of models evaluated: 32
Selected Model: ARDL(1, 1, 1, 0, 1, 1)

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
Y(-1)	-0.211482	0.260121	-0.813011	0.4397
X1	-0.219126	0.251768	-0.870349	0.4095
X1(-1)	0.279055	0.231499	1.205423	0.2625
X2	0.064143	0.354840	0.180766	0.8610
X2(-1)	-0.389971	0.313449	-1.244129	0.2487
X3	-7953.806	9692.290	-0.820632	0.4356
X4	-0.515900	0.773910	-0.666615	0.5238
X4(-1)	1.106167	0.738368	1.498126	0.1725
X5	161.0605	246.0271	0.654645	0.5311
X5(-1)	-460.4088	274.9619	-1.674446	0.1326
C	12277315	10899020	1.126460	0.2926
R-squared	0.747438	Mean dependent var		1243397.
Adjusted R-squared	0.431736	S.D. dependent var		1124692.
S.E. of regression	847829.5	Akaike info criterion		30.43164
Sum squared resid	5.75E+12	Schwarz criterion		30.97842
Log likelihood	-278.1006	Hannan-Quinn criter.		30.52418
F-statistic	2.367542	Durbin-Watson stat		1.848121
Prob(F-statistic)	0.117392			

*Note: p-values and any subsequent tests do not account for model selection.

a. Jangka Pendek

ARDL Cointegrating And Long Run Form

Original dep. variable: Y

Selected Model: ARDL(1, 1, 1, 0, 1, 1)

Date: 11/20/19 Time: 23:11

Sample: 1999 2018

Included observations: 19

Cointegrating Form				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(X1)	-0.248478	0.133521	-1.860967	0.0998
D(X2)	0.130848	0.216013	0.605745	0.5615
D(X3)	-698.396828	1161.608786	-0.601232	0.5643
D(X4)	-0.239848	0.427158	-0.561497	0.5898
D(X5)	116.843268	158.853376	0.735542	0.4830
CointEq(-1)	-1.204111	0.163816	-7.350370	0.0001

Cointeq = Y - (0.0495*X1 -0.2690*X2 -6565.3531*X3 + 0.4872*X4 -247.0927*X5 + 10134131.1701)

b. Jangka Panjang

Long Run Coefficients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
X1	0.049467	0.220415	0.224429	0.8280
X2	-0.268950	0.210223	-1.279360	0.2366
X3	6565.353112	7837.143256	-0.837723	0.0265
X4	0.487227	0.737217	0.660901	0.5272
X5	-247.092721	225.727137	-1.094652	0.0355
C	10134131.170073	9512337.821961	1.065367	0.3178

Lampiran V

Uji Asumsi Klasik

a. Uji Heterokesdatisitas

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.490802	Prob. F(10,8)	0.8554
Obs*R-squared	7.224375	Prob. Chi-Square(10)	0.7041
Scaled explained SS	0.541664	Prob. Chi-Square(10)	1.0000

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 11/20/19 Time: 23:16

Sample: 2000 2018

Included observations: 19

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.27E+12	1.76E+12	0.722304	0.4907
Y(-1)	-59230.03	54511.53	-1.086560	0.3089
X1	21548.35	59924.46	0.359592	0.7285
X1(-1)	-30369.33	42716.75	-0.710947	0.4973
X2	391.5496	80397.24	0.004870	0.9962
X2(-1)	5265.892	69013.85	0.076302	0.9411
X3	-1.27E+09	1.93E+09	-0.656818	0.5297
X3(-1)	-2.03E+09	2.03E+09	-1.001675	0.3458
X4	27484110	1.16E+08	0.236339	0.8191
X5	3448192.	69109652	0.049894	0.9614
X5(-1)	-14343308	61627115	-0.232743	0.8218

R-squared	0.380230	Mean dependent var	1.71E+11
Adjusted R-squared	-0.394482	S.D. dependent var	1.62E+11
S.E. of regression	1.91E+11	Akaike info criterion	55.08005
Sum squared resid	2.91E+23	Schwarz criterion	55.62683
Log likelihood	-512.2605	Hannan-Quinn criter.	55.17259
F-statistic	0.490802	Durbin-Watson stat	2.322081
Prob(F-statistic)	0.855412		

b. Uji Multikoleniaritas

	X1	X2	X3	X4	X5
X1	1	0.972311	0.446986	0.985429	0.842625
X2	0.972311	1	0.456311	0.946979	0.798727
X3	0.446986	0.456311	1	0.421718	0.444454
X4	0.985429	0.946979	0.421718	1	0.870239
X5	0.842625	0.798727	0.444454	0.870239	1

c. Uji Autokorelasi

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.880597	Prob. F(2,6)	0.4620
Obs*R-squared	4.311540	Prob. Chi-Square(2)	0.1158

Test Equation:

Dependent Variable: RESID

Method: ARDL

Date: 11/20/19 Time: 23:19

Sample: 2000 2018

Included observations: 19

Presample missing value lagged residuals set to zero.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Y(-1)	0.052898	0.223417	0.236770	0.8207
X1	-0.031610	0.209175	-0.151116	0.8848
X1(-1)	0.096720	0.163811	0.590436	0.5764
X2	-0.140707	0.298060	-0.472075	0.6536
X2(-1)	-0.011699	0.234542	-0.049881	0.9618
X3	1631.675	7156.566	0.227997	0.8272
X3(-1)	3017.649	7241.669	0.416706	0.6914
X4	90.09135	411.9715	0.218683	0.8341
X5	16.16633	251.4151	0.064301	0.9508
X5(-1)	-85.28738	219.1176	-0.389231	0.7105
C	960157.1	6120926.	0.156865	0.8805
RESID(-1)	-0.419664	0.555986	-0.754809	0.4789
RESID(-2)	-0.717883	0.557398	-1.287919	0.2452

R-squared	0.226923	Mean dependent var	-4.13E-09
Adjusted R-squared	-1.319231	S.D. dependent var	424880.3
S.E. of regression	647051.0	Akaike info criterion	29.81398
Sum squared resid	2.51E+12	Schwarz criterion	30.46017
Log likelihood	-270.2328	Hannan-Quinn criter.	29.92334
F-statistic	0.146766	Durbin-Watson stat	2.266369
Prob(F-statistic)	0.997516		