ANALISIS PENGARUH GDP PER KAPITA, PRODUKSI, KURS, DAN HARGA INTERNASIONAL TERHADAP VOLUME EKSPOR KAKAO INDONESIA KE MALAYSIA DENGAN PENDEKATAN VECTOR ERROR CORRECTION MODEL

ANALYSIS OF THE EFFECT OF GDP PER CAPITA, PRODUCTION, EXCHANGE RATE, AND INTERNATIONAL PRICE ON THE VOLUME OF INDONESIAN COCOA EXPORTS TO MALAYSIA WITH THE VECTOR ERROR CORRECTION MODEL APPROACH

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PERNYATAAN

Dengan ini saya,

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Menyatakan bahwa skripsi ini dengan judul: **"ANALISIS PENGARUH GDP PER KAPITA, PRODUKSI, KURS, DAN HARGA INTERNASIONAL TERHADAP VOLUME EKSPOR KAKAO INDONESIA KE MALAYSIA DENGAN PENDEKATAN VECTOR ERROR CORRECTION MODEL"** tidak terdapat karya yang pernah diajukan untuk memperoleh gelar kesarjanaan di suatu Perguruan Tinggi, dan sepanjang pengetahuan saya juga tidak terdapat karya dan pendapat yang pernah ditulis atau diterbitkan oleh orang lain, kecuali yang secara tertulis diacu dalam naskah ini dan disebutkan dalam Daftar Pustaka. Apabila ternyata dalam skripsi ini diketahui terdapat karya atau pendapat yang pernah ditulis atau diterbitkan oleh orang lain maka saya bersedia karya tersebut dibatalkan.

Yogyakarta, 19 Desember 2022

Vinni Mufrihani

HALAMAN PERSEMBAHAN

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Penyelesaian skripsi ini tidak terlepas dari bimbingan dan dukungan berbagai pihak, oleh karena itu pada kesempatan ini penulis mengucapkan terima kasih yang sebanyak-banyaknya kepada:

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Yogyakarta, 10 Januari 2023

Vinni Mufrihani

DAFTAR ISI

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DAFTAR GAMBAR

LAMPIRAN

1. Data Variabel

Tahun	Ekspor	Produksi	Kurs	Harga	GDP
1986	35.014	34.327	1.283	60,963	27,734,562,640
1987	40.911	50.199	1.644	66,337	32,181,695,507
1988	61.274	79.335	1.686	81,907	35,271,880,250
1989	75.851	110.509	1.770	85,232	38,848,567,631
1990	119.725	142.347	1.843	127,091	44,024,178,343
1991	145.217	174.899	1.950	149,918	49,143,148,094
1992	176.001	207.147	2.030	158,835	59,167,550,163
1993	228.799	258.059	2.087	210,934	66,894,837,030
1994	231.168	269.981	2.161	279,39	74,478,356,958
1995	233.593	304.866	2.249	309,328	88,705,342,903
1996	322.858	373.999	2.342	373,927	100,855,393,910
1997	265.949	330.219	2.909	419,066	100,005,323,302
1998	334.807	448.927	10.014	502,906	72,167,498,981
1999	419.874	367.475	7.855	423,273	79,148,421,053
2000	424.089	421.142	8.422	341,86	93,789,736,842
2001	392.072	536.804	10.261	389,262	92,783,947,368
2002	465.622	571.155	9.311	701,034	100,845,526,316
2003	355.726	698.816	8.577	621,022	110,202,368,421
2004	366.855	691.704	8.939	546,56	124,749,473,684
2005	463.632	748.828	9.705	664,338	143,534,102,611
2006	609.035	769.386	9.159	852,778	162,691,238,209
2007	503.522	740.006	9.141	924,157	193,547,824,063
2008	515.523	803.594	9.699	1,268,914	230,813,897,716
2009	535.236	809.583	10.390	1,413,535	202,257,625,195
2010	552.88	837.918	9.090	1,643,726	255,016,609,233
2011	410.257	712.231	8.770	1,345,429	297,951,960,784
2012	387.79	740.513	9.387	1,053,533	314,443,149,443
2013	414.092	720.862	10.461	1,151,494	323,277,158,907
2014	333.679	728.414	11.865	1,244,530	338,061,963,396
2015	355.321	593.331	13.389	1,307,771	301,354,803,994
2016	330.029	658.399	12.935	1,239,581	301,255,380,276
2017	354.752	590.684	13.343	1,120,252	319,112,136,545
2018	380.829	767.28	13.751	1,245,798	358,715,057,124
2019	358.481	734.795	13.901	1,198,734	364,681,367,532
2020	377.849	720.66	14.566	759,356	336,664,444,247

2. Uji Stasioner

a. Ekspor

Null Hypothesis: D(EKSPOR) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=8)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-6.545387	0.0000
Test critical values:	1% level	-3.646342	
	5% level	-2.954021	
	10% level	-2.615817	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(EKSPOR,2)
Method: Least Squares
Date: 11/16/22 Time: 11:37
Sample (adjusted): 1988 2020
Included observations: 33 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(EKSPOR(-1))	-1.160668	0.177326	-6.545387	0.0000
C	11.78511	10.79115	1.092109	0.2832

R-squared	0.580185	Mean dependent var	0.408212
Adjusted R-squared	0.566643	S.D. dependent var	92.93801
S.E. of regression	61.18098	Akaike info criterion	11.12424
Sum squared resid	116036.5	Schwarz criterion	11.21494
Log likelihood	-181.5500	Hannan-Quinn criter.	11.15476
F-statistic	42.84209	Durbin-Watson stat	2.055660
Prob(F-statistic)	0.000000		

b. GDP per Kapita

Null Hypothesis: D(GDP) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=8)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-4.860732	0.0004
Test critical values:	1% level	-3.646342	
	5% level	-2.954021	
	10% level	-2.615817	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(GDP,2)
Method: Least Squares

Date: 11/16/22 Time: 11:40
Sample (adjusted): 1988 2020
Included observations: 33 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(GDP(-1))	-0.924571	0.190212	-4.860732	0.0000
C	8.46E+09	3.97E+09	2.127645	0.0414

R-squared	0.432512	Mean dependent var	-9.84E+08
Adjusted R-squared	0.414206	S.D. dependent var	2.60E+10
S.E. of regression	1.99E+10	Akaike info criterion	50.32665
Sum squared resid	1.23E+22	Schwarz criterion	50.41734
Log likelihood	-828.3897	Hannan-Quinn criter.	50.35716
F-statistic	23.62672	Durbin-Watson stat	1.864233
Prob(F-statistic)	0.000032		

c. Produksi

Null Hypothesis: D(PRODUKSI) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=8)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-8.269968	0.0000
Test critical values:	1% level	-3.646342	
	5% level	-2.954021	
	10% level	-2.615817	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(PRODUKSI,2)
Method: Least Squares
Date: 11/16/22 Time: 11:43
Sample (adjusted): 1988 2020
Included observations: 33 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(PRODUKSI(-1))	-1.380425	0.166920	-8.269968	0.0000
C	28.39201	11.48120	2.472914	0.0191

R-squared	0.688105	Mean dependent var	-0.909303
Adjusted R-squared	0.678044	S.D. dependent var	110.5640
S.E. of regression	62.73534	Akaike info criterion	11.17442
Sum squared resid	122007.4	Schwarz criterion	11.26512
Log likelihood	-182.3779	Hannan-Quinn criter.	11.20494
F-statistic	68.39238	Durbin-Watson stat	1.784758
Prob(F-statistic)	0.000000		

d. Kurs

Null Hypothesis: D(KURS) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=8)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-6.936417	0.0000
Test critical values:	1% level	-3.646342	
	5% level	-2.954021	
	10% level	-2.615817	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(KURS,2)
Method: Least Squares
Date: 03/15/23 Time: 15:04
Sample (adjusted): 1988 2020
Included observations: 33 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(KURS(-1))	-1.216900	0.175436	-6.936417	0.0000
C	0.474510	0.256937	1.846796	0.0743

R-squared	0.608160	Mean dependent var	0.009212
Adjusted R-squared	0.595520	S.D. dependent var	2.240297
S.E. of regression	1.424801	Akaike info criterion	3.604633
Sum squared resid	62.93180	Schwarz criterion	3.695331
Log likelihood	-57.47645	Hannan-Quinn criter.	3.635150
F-statistic	48.11388	Durbin-Watson stat	2.075237
Prob(F-statistic)	0.000000		

e. Harga Internasional

Null Hypothesis: D(HARGA) has a unit root
Exogenous: Constant
Lag Length: 1 (Automatic - based on SIC, maxlag=8)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-5.409287	0.0001
Test critical values:	1% level	-3.653730	
	5% level	-2.957110	
	10% level	-2.617434	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(HARGA,2)
Method: Least Squares

Date: 11/16/22 Time: 11:45
Sample (adjusted): 1989 2020
Included observations: 32 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(HARGA(-1))	-1.499677	0.277241	-5.409287	0.0000
D(HARGA(-1),2)	0.372066	0.186212	1.998078	0.0552
C	39462.24	42981.39	0.918124	0.3661

R-squared	0.570947	Mean dependent var	-14217.13
Adjusted R-squared	0.541357	S.D. dependent var	349086.6
S.E. of regression	236412.5	Akaike info criterion	27.67360
Sum squared resid	1.62E+12	Schwarz criterion	27.81102
Log likelihood	-439.7777	Hannan-Quinn criter.	27.71915
F-statistic	19.29536	Durbin-Watson stat	1.908389
Prob(F-statistic)	0.000005		

3. Uji Panjang Lag Optimal

VAR Lag Order Selection Criteria
Endogenous variables: D(EKSPOR) D(GDP) D(HARGA) D(KURS) D(PRODUKSI)
Exogenous variables: C
Date: 03/15/23 Time: 15:10
Sample: 1986 2020
Included observations: 30

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-1549.771	NA	7.13e+38	103.6514	103.8849*	103.7261
1	-1534.289	24.77001	1.38e+39	104.2860	105.6872	104.7342
2	-1517.279	21.54714	2.74e+39	104.8186	107.3874	105.6404
3	-1469.735	44.37425	9.42e+38	103.3156	107.0522	104.5110
4	-1401.236	41.09897*	1.49e+38*	100.4158*	105.3199	101.9847*

* indicates lag order selected by the criterion
LR: sequential modified LR test statistic (each test at 5% level)
FPE: Final prediction error
AIC: Akaike information criterion
SC: Schwarz information criterion
HQ: Hannan-Quinn information criterion

4. Uji Stabilitas Model VAR

Roots of Characteristic Polynomial
Endogenous variables: D(EKSPOR) D(GDP) D(HARGA) D(KURS) D(PRODUKSI)
Exogenous variables: C
Lag specification: 1 3
Date: 03/15/23 Time: 15:13

Root	Modulus
-0.942016	0.942016

-0.905748	0.905748
-0.330573 - 0.828396i	0.891919
-0.330573 + 0.828396i	0.891919
0.380098 - 0.800129i	0.885822
0.380098 + 0.800129i	0.885822
-0.239444 - 0.799171i	0.834271
-0.239444 + 0.799171i	0.834271
0.694920 - 0.262824i	0.742960
0.694920 + 0.262824i	0.742960
0.400163 - 0.625186i	0.742286
0.400163 + 0.625186i	0.742286
-0.432214 - 0.372838i	0.570804
-0.432214 + 0.372838i	0.570804
0.482690	0.482690

No root lies outside the unit circle.
VAR satisfies the stability condition.

5. Uji Kointegrasi

Date: 03/15/23 Time: 15:11
Sample (adjusted): 1991 2020
Included observations: 30 after adjustments
Trend assumption: Linear deterministic trend
Series: D(EKSPOR) D(GDP) D(HARGA) D(KURS) D(PRODUKSI)
Lags interval (in first differences): 1 to 3

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.950944	166.3123	69.81889	0.0000
At most 1 *	0.823593	75.86841	47.85613	0.0000
At most 2	0.318972	23.81956	29.79707	0.2082
At most 3	0.240946	12.29500	15.49471	0.1433
At most 4 *	0.125542	4.024543	3.841466	0.0448

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.950944	90.44392	33.87687	0.0000
At most 1 *	0.823593	52.04885	27.58434	0.0000
At most 2	0.318972	11.52456	21.13162	0.5949
At most 3	0.240946	8.270458	14.26460	0.3519
At most 4 *	0.125542	4.024543	3.841466	0.0448

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

6. Uji Kausalitas Granger

Pairwise Granger Causality Tests
Date: 03/15/23 Time: 15:17
Sample: 1986 2020
Lags: 4

Null Hypothesis:	Obs	F-Statistic	Prob.
PRODUKSI does not Granger Cause EKSPOR	31	0.27064	0.8937
EKSPOR does not Granger Cause PRODUKSI		0.74735	0.5702
KURS does not Granger Cause EKSPOR	31	1.29922	0.3010
EKSPOR does not Granger Cause KURS		0.86541	0.5001
HARGA does not Granger Cause EKSPOR	31	3.49260	0.0236
EKSPOR does not Granger Cause HARGA		1.44441	0.2529
GDP does not Granger Cause EKSPOR	31	0.87325	0.4957
EKSPOR does not Granger Cause GDP		1.67233	0.1922
KURS does not Granger Cause PRODUKSI	31	1.69905	0.1861
PRODUKSI does not Granger Cause KURS		0.55068	0.7005
HARGA does not Granger Cause PRODUKSI	31	1.27617	0.3094
PRODUKSI does not Granger Cause HARGA		3.04609	0.0386
GDP does not Granger Cause PRODUKSI	31	1.93697	0.1399
PRODUKSI does not Granger Cause GDP		2.03369	0.1246
HARGA does not Granger Cause KURS	31	0.52919	0.7155
KURS does not Granger Cause HARGA		1.17365	0.3496
GDP does not Granger Cause KURS	31	0.78626	0.5464
KURS does not Granger Cause GDP		1.04774	0.4054
GDP does not Granger Cause HARGA	31	0.44321	0.7761
HARGA does not Granger Cause GDP		1.86475	0.1525

7. Model VECM

Vector Error Correction Estimates
Date: 03/15/23 Time: 15:21
Sample (adjusted): 1990 2020
Included observations: 31 after adjustments
Standard errors in ( ) & t-statistics in [ ]

Cointegrating Eq:	CointEq1
LOG(EKSPOR(-1))	1.000000
LOG(GDP(-1))	0.329195
	(0.04952)

	[6.64831]
LOG(HARGA(-1))	-0.113319
	(0.03034)
	[-3.73536]
LOG(KURS(-1))	0.215840
	(0.04202)
	[5.13712]
LOG(PRODUKSI(-1))	-1.264597
	(0.06011)
	[-21.0384]
C	-5.358549

Error Correction:	D(LOG(EKSPOR))	D(LOG(GDP))	D(LOG(HARGA))	D(LOG(KURS))	D(LOG(PRODUKSI))
CointEq1	-0.719129	-0.152740	3.434190	0.970646	0.798285
	(0.38660)	(0.43309)	(2.19294)	(0.73642)	(0.27654)
	[-1.86013]	[-0.35267]	[1.56602]	[1.31806]	[2.88664]
D(LOG(EKSPOR(-1)))	0.225343	0.294169	-1.593400	-0.482979	-0.153210
	(0.27350)	(0.30639)	(1.55136)	(0.52097)	(0.19564)
	[0.82394]	[0.96013]	[-1.02710]	[-0.92707]	[-0.78313]
D(LOG(EKSPOR(-2)))	0.249392	0.170998	0.215724	-0.093560	-0.270650
	(0.23735)	(0.26590)	(1.34635)	(0.45213)	(0.16978)
	[1.05072]	[0.64309]	[0.16023]	[-0.20693]	[-1.59408]
D(LOG(EKSPOR(-3)))	0.356384	0.147973	-0.364236	-0.744377	-0.118214
	(0.23978)	(0.26862)	(1.36014)	(0.45676)	(0.17152)
	[1.48627]	[0.55086]	[-0.26779]	[-1.62970]	[-0.68920]
D(LOG(GDP(-1)))	-0.302459	-0.274441	1.074787	0.818984	-0.310527
	(0.43653)	(0.48903)	(2.47615)	(0.83153)	(0.31226)
	[-0.69287]	[-0.56120]	[0.43406]	[0.98491]	[-0.99445]
D(LOG(GDP(-2)))	0.317871	-0.217006	-2.135829	0.290846	-0.069182
	(0.38610)	(0.43254)	(2.19012)	(0.73547)	(0.27619)
	[0.82328]	[-0.50171]	[-0.97521]	[0.39545]	[-0.25049]
D(LOG(GDP(-3)))	0.020083	0.003149	2.985539	0.212346	-0.184620
	(0.36390)	(0.40766)	(2.06414)	(0.69317)	(0.26030)
	[0.05519]	[0.00772]	[1.44638]	[0.30634]	[-0.70925]
D(LOG(HARGA(-1)))	-0.052534	-0.031379	-0.479677	0.072962	0.069399
	(0.03923)	(0.04395)	(0.22251)	(0.07472)	(0.02806)
	[-1.33921]	[-0.71404]	[-2.15571]	[0.97643]	[2.47318]
D(LOG(HARGA(-2)))	-0.131937	-0.033174	-0.496578	0.103276	0.019520
	(0.03937)	(0.04410)	(0.22331)	(0.07499)	(0.02816)
	[-3.35139]	[-0.75220]	[-2.22372]	[1.37719]	[0.69318]
D(LOG(HARGA(-3)))	-0.017279	-0.016169	-0.520319	0.126359	0.057355
	(0.04110)	(0.04604)	(0.23312)	(0.07828)	(0.02940)

	[-0.42045]	[-0.35121]	[-2.23201]	[1.61410]	[1.95100]
D(LOG(KURS(-1)))	0.082021	-0.234127	1.203461	0.488938	-0.209893
	(0.22610)	(0.25330)	(1.28254)	(0.43070)	(0.16174)
	[0.36276]	[-0.92432]	[0.93834]	[1.13522]	[-1.29774]
D(LOG(KURS(-2)))	0.276480	-0.011982	-3.670121	-0.254230	-0.312164
	(0.22420)	(0.25116)	(1.27175)	(0.42707)	(0.16038)
	[1.23318]	[-0.04771]	[-2.88589]	[-0.59529]	[-1.94645]
D(LOG(KURS(-3)))	0.224142	-0.074728	-1.180214	-0.197393	-0.129408
	(0.28833)	(0.32301)	(1.63552)	(0.54923)	(0.20625)
	[0.77738]	[-0.23135]	[-0.72161]	[-0.35940]	[-0.62743]
D(LOG(PRODUKSI(-1)))	-0.249243	0.049036	-0.857440	-0.188946	-0.029279
	(0.30311)	(0.33956)	(1.71933)	(0.57738)	(0.21682)
	[-0.82230]	[0.14441]	[-0.49871]	[-0.32725]	[-0.13504]
D(LOG(PRODUKSI(-2)))	0.198766	-0.136768	0.869791	0.522409	0.623143
	(0.25735)	(0.28830)	(1.45976)	(0.49021)	(0.18409)
	[0.77237]	[-0.47440]	[0.59584]	[1.06568]	[3.38506]
D(LOG(PRODUKSI(-3)))	0.092683	-0.046490	1.468250	0.379688	0.475165
	(0.31833)	(0.35662)	(1.80571)	(0.60638)	(0.22771)
	[0.29115]	[-0.13036]	[0.81312]	[0.62615]	[2.08669]
C	-0.040027	0.109395	0.269273	-0.039348	0.076736
	(0.07863)	(0.08808)	(0.44601)	(0.14978)	(0.05624)
	[-0.50907]	[1.24193]	[0.60374]	[-0.26271]	[1.36433]
R-squared	0.759211	0.262280	0.789506	0.491856	0.796120
Adj. R-squared	0.484024	-0.580828	0.548941	-0.088879	0.563114
Sum sq. resids	0.231616	0.290675	7.452377	0.840419	0.118515
S.E. equation	0.128623	0.144092	0.729598	0.245010	0.092007
F-statistic	2.758890	0.311087	3.281882	0.846954	3.416734
Log likelihood	31.91119	28.39075	-21.89256	11.93446	42.29684
Akaike AIC	-0.962012	-0.734887	2.509197	0.326809	-1.632054
Schwarz SC	-0.175632	0.051493	3.295577	1.113189	-0.845674
Mean dependent	0.051798	0.069659	0.070551	0.067991	0.060486
S.D. dependent	0.179063	0.114603	1.086342	0.234798	0.139200

Determinant resid covariance (dof adj.)	5.55E-09
Determinant resid covariance	1.04E-10
Log likelihood	136.3234
Akaike information criterion	-2.988606
Schwarz criterion	1.174582
Number of coefficients	90

8. Uji Variance Decomposition

a. Tabel Uji VD

Variance Decompositi on of LOG(EKSPO

R):

Period	S.E.	LOG(EKSPOR)	LOG(GDP)	LOG(HARGA)	LOG(KURS)	LOG(PRODUKSI)
1	0.128623	100.0000	0.000000	0.000000	0.000000	0.000000
2	0.193124	87.73203	8.249417	0.078202	0.145615	3.794740
3	0.242372	80.50026	9.108066	4.956663	1.171837	4.263176
4	0.314700	84.42527	5.577687	2.943793	0.711216	6.342033
5	0.375147	85.95868	5.376090	2.072786	0.671052	5.921396
6	0.417071	86.35548	5.364180	2.084536	0.543827	5.651977
7	0.473018	86.10761	4.251918	2.704886	0.488417	6.447167
8	0.527854	86.38642	4.372622	2.349091	0.392308	6.499564
9	0.589092	84.69907	6.000867	2.532043	0.660701	6.107323
10	0.656226	84.90896	6.524292	2.193264	0.781083	5.592406

Variance Decomposition of LOG(GDP):

Period	S.E.	LOG(EKSPOR)	LOG(GDP)	LOG(HARGA)	LOG(KURS)	LOG(PRODUKSI)
1	0.144092	2.706387	97.29361	0.000000	0.000000	0.000000
2	0.210177	1.678411	95.51961	0.255022	2.115743	0.431215
3	0.242586	1.392823	90.28976	0.297750	6.242526	1.777140
4	0.274550	1.797885	85.57999	0.505377	8.767740	3.349010
5	0.299908	1.553681	82.20251	0.494773	11.04535	4.703688
6	0.319633	1.412636	79.47998	0.450884	13.10613	5.550375
7	0.340671	1.498695	77.24700	0.549284	14.72532	5.979710
8	0.361377	1.383118	75.42268	0.707846	16.03965	6.446701
9	0.376072	1.280791	74.10227	0.800825	16.89386	6.922250
10	0.386351	1.219546	73.29896	0.945388	17.22286	7.313247

Variance Decomposition of LOG(HARGA):

Period	S.E.	LOG(EKSPOR)	LOG(GDP)	LOG(HARGA)	LOG(KURS)	LOG(PRODUKSI)
1	0.729598	28.13984	0.489188	71.37097	0.000000	0.000000
2	0.841697	21.88562	1.666211	57.42021	6.631551	12.39641
3	0.942952	17.55167	16.08219	46.05878	10.40896	9.898413
4	1.084192	15.34947	30.12610	36.04305	9.757338	8.724036
5	1.136786	14.34426	27.45125	41.03712	9.209070	7.958292
6	1.157593	16.13417	27.13598	40.17194	8.882616	7.675299
7	1.243022	16.12690	26.09247	41.23694	9.877879	6.665811
8	1.277644	15.27962	28.78437	39.74209	9.857242	6.336680
9	1.315244	14.93884	28.21378	39.65553	11.19771	5.994143
10	1.336373	15.94252	27.55459	39.29059	11.34370	5.868600

Variance Decomposition of LOG(KURS):

Period	S.E.	LOG(EKSPOR)	LOG(GDP)	LOG(HARGA)	LOG(KURS)	LOG(PRODUKSI)

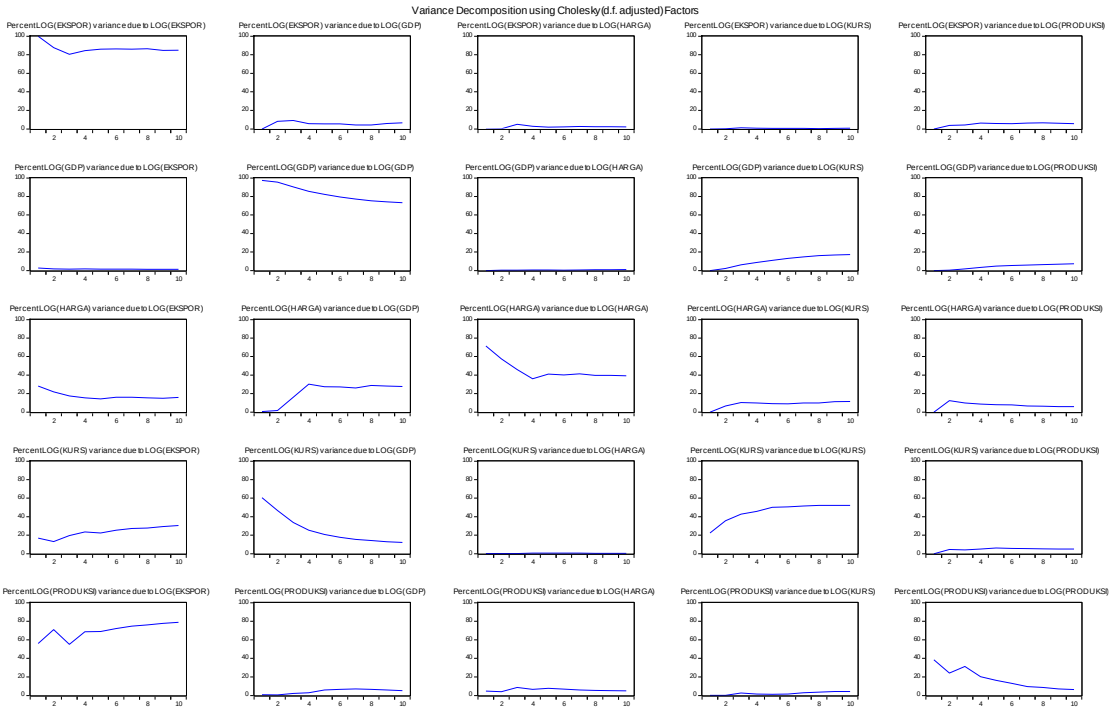
1	0.245010	16.77833	60.60753	0.198933	22.41521	0.000000
2	0.380243	13.12613	46.66720	0.198795	35.50165	4.506229
3	0.468205	19.56553	33.57407	0.162551	42.65751	4.040329
4	0.561020	23.39698	25.28427	0.561805	45.70031	5.056632
5	0.628639	22.35974	20.72312	0.652009	50.11330	6.151838
6	0.678774	25.40248	17.77583	0.581432	50.57414	5.666113
7	0.732591	27.13004	15.46608	0.501490	51.38984	5.512549
8	0.775510	27.70787	14.24895	0.447529	52.30927	5.286379
9	0.819372	29.39768	12.93655	0.415339	52.15909	5.091346
10	0.850662	30.38467	12.04571	0.401555	52.20901	4.959055

Variance Decomposition of LOG(PRODUKSI):

Period	S.E.	LOG(EKSPOR)	LOG(GDP)	LOG(HARGA)	LOG(KURS)	LOG(PRODUKSI)
1	0.092007	55.95774	0.888969	4.756873	0.034070	38.36235
2	0.116024	71.08099	0.566849	4.024514	0.166974	24.16067
3	0.161505	55.16162	2.276955	8.596096	2.630002	31.33532
4	0.212807	68.80202	2.979532	6.548551	1.530325	20.13957
5	0.259294	69.01206	5.790867	7.738220	1.285772	16.17308
6	0.322277	72.09481	6.604697	6.748591	1.508723	13.04318
7	0.383301	74.60909	7.122374	5.776364	2.899513	9.592660
8	0.435585	75.98277	6.553094	5.427477	3.487431	8.549233
9	0.492504	77.69663	5.848498	5.276737	4.198603	6.979532
10	0.540646	78.97702	5.203803	5.042918	4.311872	6.464390

Cholesky Ordering: LOG(EKSPOR) LOG(GDP) LOG(HARGA) LOG(KURS) LOG(PRODUKSI)

b. Grafik Uji VD



9. Analisis IRF

a. Tabel Uji IRF

Response of LOG(EKSPOR): Period	LOG(EKSPOR)	LOG(GDP)	LOG(HARGA)	LOG(KURS)	LOG(PRODUKSI)
1	0.128623	0.000000	0.000000	0.000000	0.000000
2	0.127190	-0.055469	0.005401	-0.007370	0.037621
3	0.120697	-0.047683	-0.053690	0.025181	0.033001
4	0.190584	-0.013171	-0.001916	-0.003997	0.061453
5	0.193295	-0.045190	-0.001316	0.015494	0.045306
6	0.170996	-0.042010	-0.026625	-0.001252	0.038704
7	0.206031	-0.013513	-0.049255	-0.012118	0.067777
8	0.219171	-0.051671	-0.022208	-0.000523	0.060699
9	0.230722	-0.092959	-0.047346	0.034637	0.055538
10	0.267795	-0.085270	-0.025651	0.032723	0.053745

Response of LOG(GDP): Period	LOG(EKSPOR)	LOG(GDP)	LOG(HARGA)	LOG(KURS)	LOG(PRODUKSI)
1	-0.023705	0.142129	0.000000	0.000000	0.000000
2	-0.013398	0.148306	-0.010614	-0.030571	0.013802
3	-0.008844	0.104587	-0.007910	-0.052335	0.029246

4	-0.023142	0.106653	-0.014343	-0.054179	0.038453
5	-0.006500	0.097102	-0.008005	-0.057670	0.041308
6	-0.006765	0.085229	-0.003953	-0.058781	0.037945
7	-0.017208	0.091920	-0.013298	-0.060826	0.035627
8	-0.008181	0.094056	-0.016939	-0.062105	0.038459
9	-0.002272	0.079410	-0.014429	-0.054280	0.037029
10	0.002993	0.067885	-0.016690	-0.042604	0.033558

Response of LOG(HARGA):

Period	LOG(EKSPOR)	LOG(GDP)	LOG(HARGA)	LOG(KURS)	LOG(PRODUKSI)
1	0.387030	0.051029	0.616374	0.000000	0.000000
2	0.072509	-0.095918	0.163948	0.216752	-0.296349
3	-0.031819	0.362204	0.052339	-0.213473	0.013772
4	0.156098	0.459486	0.118914	-0.148804	0.120566
5	0.070282	-0.024975	0.326557	-0.065669	-0.017175
6	0.175594	-0.094238	0.089431	0.004684	0.002683
7	0.181593	0.198816	0.314389	-0.183288	0.011958
8	-0.015591	0.258288	0.107637	-0.091014	0.021085
9	0.094876	0.134879	0.192999	-0.181103	0.015887
10	0.162155	0.063520	0.125301	-0.094239	0.033410

Response of LOG(KURS):

Period	LOG(EKSPOR)	LOG(GDP)	LOG(HARGA)	LOG(KURS)	LOG(PRODUKSI)
1	0.100359	-0.190742	-0.010928	0.115999	0.000000
2	0.094373	-0.176326	-0.012962	0.194613	-0.080717
3	0.154636	-0.078269	-0.008301	0.205383	-0.048391
4	0.175356	-0.077336	0.037575	0.224336	-0.084014
5	0.121336	-0.048111	-0.028433	0.232815	-0.091629
6	0.169337	-0.002028	-0.010109	0.187005	-0.042361
7	0.169016	-0.033251	0.003549	0.206862	-0.058988
8	0.145035	-0.051870	-0.000245	0.196956	-0.046987
9	0.175294	-0.034012	-0.009847	0.188639	-0.048874
10	0.150013	-0.017709	0.010830	0.166183	-0.041270

Response of LOG(PRODUKSI):

Period	LOG(EKSPOR)	LOG(GDP)	LOG(HARGA)	LOG(KURS)	LOG(PRODUKSI)
1	0.068826	0.008675	-0.020067	0.001698	0.056987
2	0.069509	-0.001026	-0.011793	-0.004426	-0.002210
3	0.069424	0.022751	-0.041236	-0.025759	0.070151
4	0.129498	-0.027485	-0.026896	-0.002650	0.030774
5	0.123455	-0.050439	-0.047297	0.013093	0.041871
6	0.168761	-0.054465	-0.042504	0.026505	0.051703
7	0.186375	-0.060036	-0.038436	0.051894	0.023378
8	0.185876	-0.044377	-0.042558	0.048548	0.046123
9	0.210466	-0.041865	-0.050015	0.059727	0.026623
10	0.205882	-0.032008	-0.044058	0.049187	0.044337

Cholesky Ordering: LOG(EKSPOR) LOG(GDP) LOG(HARGA) LOG(KURS)

b. Grafik IRF Masing-Masing Variabel