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LAMPIRAN

Lampiran 1 Data Penelitian

	INFR	UNR	OIL	PALM	WPI
1990	7.81919	2.6	28.25112	-17.31272	10.0464
1991	9.41906	2.7	-15.34091	16.99741	5.1498
1992	7.52352	2.8	-1.80692	16.07670	5.1647
1993	9.67189	2.8	-11.46162	-4.00254	4.0644
1994	8.53201	4.5	-5.64133	39.88529	5.0448
1995	9.42032	7.4	8.11831	18.89292	11.3865
1996	7.97328	5.0	18.85914	-15.49277	7.8581
1997	6.22614	4.8	-6.12145	2.80961	8.9620
1998	58.45104	5.5	-31.87272	22.94656	101.8047
1999	20.47783	6.4	38.36141	-35.03042	10.4530
2000	3.68862	6.1	56.22579	-28.84174	12.4900
2001	11.50011	8.1	-13.74424	-7.34623	12.7008
2002	11.90012	9.1	2.38193	42.94072	4.5127
2003	6.75732	9.7	15.92459	16.01585	3.2134
2004	6.06406	9.9	30.55363	4.73617	7.4305
2005	10.45320	11.2	41.50543	-9.75737	15.9195
2006	13.10867	10.3	20.41581	12.81394	13.4079
2007	6.40656	9.1	10.62374	60.67047	13.6744
2008	10.22666	8.4	36.37514	27.70177	25.8175
2009	4.38642	7.9	-36.32333	-28.93573	-33.7411
2010	5.13420	7.1	27.97927	25.88930	4.8425
2011	5.35605	6.6	31.59160	27.90355	7.4610
2012	4.27950	6.1	0.96145	-12.56714	5.1137
2013	6.41251	6.3	-0.88563	-16.54898	-1.6049
2014	6.39493	5.9	-7.53267	-3.81942	-30.1461
2015	6.36312	6.2	-47.26725	-20.78624	4.3926
2016	3.52581	5.6	-15.64532	10.90044	7.8869
2017	3.80880	5.5	23.35903	2.05382	4.6465
2018	3.19835	5.2	29.42625	-14.93813	5.4519
2019	3.03059	5.2	-10.15362	-5.83870	
2020	1.92097	7.1	-32.81225	25.00962	
2021	1.56013	6.5	67.40184	50.38941	
2022	4.20946	5.9	40.58202	12.86202	

	FPI	EXR	d_CPII	NAIRU_IHK	NAIRU_INF
1990	2.74885		0.91759	12.29719	7.030383
1991	-0.44865	4.78695	1.19176	15.97858	7.544183
1992	8.07878	3.51406	1.04159	19.67277	8.071822
1993	0.71042	2.32784	1.43976	23.40304	8.644972
1994	0.30670	4.26540	1.39292	26.94546	9.164063
1995	8.37792	4.90909	1.66916	30.07813	9.560073
1996	2.11595	3.24957	1.54585	32.33021	9.670116
1997	-5.12502	95.13219	1.30336	33.14839	9.346508
1998	-0.55329	72.58065	12.99780	31.64167	8.334917
1999	0.49780	-11.71340	7.21534	26.50884	6.263178
2000	3.32168	35.42696	1.56583	22.29742	4.894102
2001	1.35364	8.38979	5.06189	20.33261	4.418895
2002	5.10573	-14.03846	5.84033	18.82587	4.345355
2003	6.56519	-5.31320	3.71100	17.69295	4.541669
2004	4.23550	9.74601	3.55531	17.15909	4.940142
2005	0.71497	5.81270	6.50028	16.25702	5.311628
2006	3.21817	-8.24008	9.00367	13.86559	5.447865
2007	0.48143	4.42350	4.97716	10.35172	5.381285
2008	5.21332	16.25438	8.45394	7.35469	5.302841
2009	3.62138	-14.15525	3.99689	4.39746	5.163051
2010	-1.05682	-4.35106	4.88348	2.83001	5.101643
2011	0.90948	0.85641	5.35605	1.70861	5.043794
2012	5.73255	6.63873	4.50871	0.59547	4.965641
2013	-0.95153	26.04964	7.04509	-0.65141	4.868069
2014	-0.50035	2.05923	7.47630	-2.56167	4.718717
2015	2.55456	10.89228	7.91484	-4.27023	4.587897
2016	-3.29509	-2.60239	4.66468	-4.60210	4.557007
2017	11.66210	0.83358	5.21675	-2.04846	4.722245
2018	5.20389	6.88663	4.54749	3.30338	5.072713
2019	-5.38674	-4.00521	4.44678	11.73005	5.617010
2020	3.48540	1.46752	2.90406	23.17746	6.339721
2021	0.59072	1.16271	2.40386	37.47360	7.214312
2022		10.24595	6.58716	53.47964	8.175888

	NAIRU_WPI	UGAP_IHK	UGAP_INF	UGAP_WPI
1990	3.52886	-9.69719	-4.430383	-0.928861
1991	4.68336	-13.27858	-4.844183	-1.983357
1992	5.89044	-16.87277	-5.271822	-3.090442
1993	7.08338	-20.60304	-5.844972	-4.283376
1994	8.16482	-22.44546	-4.664063	-3.664821
1995	8.97224	-22.67813	-2.160073	-1.572242
1996	9.32638	-27.33021	-4.670116	-4.326382
1997	9.16112	-28.34839	-4.546508	-4.361115
1998	8.29536	-26.14167	-2.834917	-2.795362
1999	6.52686	-20.10884	0.136822	-0.126860
2000	5.51187	-16.19742	1.205898	0.588132
2001	5.04920	-12.23261	3.681105	3.050802
2002	4.98493	-9.72587	4.754645	4.115067
2003	5.19995	-7.99295	5.158331	4.500053
2004	5.44989	-7.25909	4.959858	4.450110
2005	5.50901	-5.05702	5.888372	5.690988
2006	5.28175	-3.56559	4.852135	5.018250
2007	4.90194	-1.25172	3.718715	4.198058
2008	4.50257	1.04531	3.097159	3.897425
2009	4.26403	3.50254	2.736949	3.635972
2010	4.65240	4.26999	1.998357	2.447605
2011	4.95995	4.89139	1.556206	1.640046
2012	5.28744	5.50453	1.134359	0.812561
2013	5.80519	6.95141	1.431931	0.494807
2014	6.64399	8.46167	1.181283	-0.743990
2015	7.80303	10.47023	1.612103	-1.603032
2016	8.69415	10.20210	1.042993	-3.094154
2017	9.41495	7.54846	0.777755	-3.914953
2018	10.10309	1.89662	0.127287	-4.903086
2019		-6.53005	-0.417010	
2020		-16.07746	0.760279	
2021		-30.97360	-0.714312	
2022		-47.57964	-2.275888	

Lampiran 2 Statistik Deskriptif

	Mean	Median	Minimum	Maximum
INFR	8.6424	6.4066	1.5601	58.451
UNR	6.4697	6.2000	2.6000	11.200
OIL	8.8572	8.1183	-47.267	67.402
PALM	6.5539	4.7362	-35.030	60.670
WPI	8.7381	7.4305	-33.741	101.80
FPI	2.1715	1.7348	-5.3867	11.662
EXR	8.5466	3.8897	-14.155	95.132
d_CPII	4.5860	4.5475	0.91759	12.998
NAIRU_IHK	15.779	16.257	-4.6021	53.480
NAIRU_INF	6.1928	5.3116	4.3454	9.6701
NAIRU_WPI	6.4018	5.5119	3.5289	10.103
UGAP_IHK	-9.3092	-7.9930	-47.580	10.470
UGAP_INF	0.27692	1.0430	-5.8450	5.8884
UGAP_WPI	0.10855	-0.12686	-4.9031	5.6910

	Std. Dev.	C.V.	Skewness	Ex. kurtosis
INFR	9.7096	1.1235	4.2852	19.425
UNR	2.2011	0.34021	0.16478	-0.37836
OIL	27.440	3.0981	-0.011109	-0.57884
PALM	23.708	3.6174	0.29535	-0.54153
WPI	21.301	2.4378	2.5363	11.493
FPI	3.7396	1.7221	0.24729	0.23755
EXR	22.352	2.6153	2.6115	6.9436
d_CPII	2.8141	0.61363	0.74283	0.58899
NAIRU_IHK	13.835	0.87683	0.46600	-0.062734
NAIRU_INF	1.7428	0.28143	0.80038	-0.86054
NAIRU_WPI	1.8676	0.29174	0.55161	-1.0438
UGAP_IHK	14.190	1.5243	-0.53676	-0.20761
UGAP_INF	3.4429	12.433	-0.26638	-1.0014
UGAP_WPI	3.4107	31.421	0.10580	-1.3980

	5% perc.	95% perc.	IQ range	Missing obs.
INFR	1.8127	31.870	5.3016	0
UNR	2.6700	10.570	2.8000	0
OIL	-39.607	59.579	40.798	0
PALM	-30.764	53.474	37.731	0
WPI	-31.944	63.811	7.3587	4
FPI	-5.2166	9.5274	5.1480	1
EXR	-14.079	80.474	11.150	1
d_CPII	1.0044	10.202	4.9262	0
NAIRU_IHK	-4.3698	42.275	21.889	0
NAIRU_INF	4.3968	9.5931	2.9269	0
NAIRU_WPI	3.8964	9.7590	3.2576	4
UGAP_IHK	-35.955	10.283	24.242	0
UGAP_INF	-5.4438	5.3773	5.4725	0
UGAP_WPI	-4.6321	5.3546	6.8590	4

Lampiran 3 OLS Perubahan Tingkat Inflasi dan Tingkat Pengangguran

Tingkat Inflasi IHK

Model 3: OLS, using observations 1990-2022 (T = 33)
Dependent variable: d_INFR

	coefficient	std. error	t-ratio	p-value
const	1.49500	6.74273	0.2217	0.8260
UNR	-0.241410	0.988219	-0.2443	0.8086
Mean dependent var	-0.066851	S.D. dependent var	12.12227	
Sum squared resid	4693.349	S.E. of regression	12.30440	
R-squared	0.001921	Adjusted R-squared	-0.030275	
F(1, 31)	0.059676	P-value(F)	0.808618	
Log-likelihood	-128.6220	Akaike criterion	261.2439	
Schwarz criterion	264.2370	Hannan-Quinn	262.2510	
rho	-0.351268	Durbin-Watson	2.700062	

Perubahan IHK

Model 4: OLS, using observations 1990-2022 (T = 33)
Dependent variable: d_d_CPII

	coefficient	std. error	t-ratio	p-value
const	0.0543462	1.76599	0.03077	0.9756
UNR	0.0191394	0.258825	0.07395	0.9415
Mean dependent var	0.178172	S.D. dependent var	3.172180	
Sum squared resid	321.9504	S.E. of regression	3.222654	
R-squared	0.000176	Adjusted R-squared	-0.032076	
F(1, 31)	0.005468	P-value(F)	0.941527	
Log-likelihood	-84.41016	Akaike criterion	172.8203	
Schwarz criterion	175.8133	Hannan-Quinn	173.8274	
rho	-0.322187	Durbin-Watson	2.561962	

WPI

Model 2: OLS, using observations 1990-2018 (T = 29)
Dependent variable: d_WPI

	coefficient	std. error	t-ratio	p-value
const	3.15064	16.8155	0.1874	0.8528
UNR	-0.492149	2.43605	-0.2020	0.8414
Mean dependent var	-0.053421	S.D. dependent var	29.57743	
Sum squared resid	24458.10	S.E. of regression	30.09744	
R-squared	0.001509	Adjusted R-squared	-0.035472	
F(1, 27)	0.040815	P-value(F)	0.841409	
Log-likelihood	-138.8418	Akaike criterion	281.6836	
Schwarz criterion	284.4182	Hannan-Quinn	282.5401	
rho	-0.498030	Durbin-Watson	2.996001	

Lampiran 4 OLS Kurva Phillips *Triangle Model*

Tingkat Inflasi IHK

Model 5: OLS, using observations 1991-2021 (T = 31)
Dependent variable: INFR

	coefficient	std. error	t-ratio	p-value
const	2.34537	2.92164	0.8028	0.4300
UGAP_INF	0.233138	0.520157	0.4482	0.6580
OIL	-0.114121	0.0649945	-1.756	0.0919 *
PALM	0.106009	0.0726457	1.459	0.1575
FPI	0.261105	0.458442	0.5695	0.5743
EXR	0.226343	0.0798870	2.833	0.0092 ***
INFR_1	0.436111	0.183404	2.378	0.0257 **
Mean dependent var	8.811993	S.D. dependent var	9.992740	
Sum squared resid	1886.472	S.E. of regression	8.865834	
R-squared	0.370262	Adjusted R-squared	0.212827	
F(6, 24)	2.351846	P-value(F)	0.062767	
Log-likelihood	-107.6685	Akaike criterion	229.3370	
Schwarz criterion	239.3749	Hannan-Quinn	232.6091	
rho	-0.372910	Durbin's h	NA	

Excluding the constant, p-value was highest for variable 35 (UGAP_INF)

Perubahan IHK

Model 7: OLS, using observations 1991-2021 (T = 31)
Dependent variable: d_CPII

	coefficient	std. error	t-ratio	p-value
const	3.19118	1.41252	2.259	0.0332 **
UGAP_IHK	0.0781226	0.0452096	1.728	0.0968 *
OIL	-0.00773654	0.0184739	-0.4188	0.6791
PALM	0.0170817	0.0211291	0.8084	0.4268
FPI	0.00650820	0.136088	0.04782	0.9623
EXR	0.0437118	0.0245341	1.782	0.0875 *
d_CPII_1	0.354400	0.210960	1.680	0.1059
Mean dependent var	4.639739	S.D. dependent var	2.803941	
Sum squared resid	162.5047	S.E. of regression	2.602120	
R-squared	0.311019	Adjusted R-squared	0.138774	
F(6, 24)	1.805679	P-value(F)	0.140472	
Log-likelihood	-69.66625	Akaike criterion	153.3325	
Schwarz criterion	163.3704	Hannan-Quinn	156.6046	
rho	-0.217007	Durbin's h	NA	

Excluding the constant, p-value was highest for variable 10 (FPI)

WPI

Model 8: OLS, using observations 1991-2018 (T = 28)
Dependent variable: WPI

	coefficient	std. error	t-ratio	p-value
UGAP_WPI	0.0949366	1.13233	0.08384	0.9339
OIL	0.00409238	0.155071	0.02639	0.9792
PALM	0.307081	0.153189	2.005	0.0575 *
FPI	0.570923	0.858430	0.6651	0.5129
EXR	0.541068	0.145418	3.721	0.0012 ***
WPI_1	0.182039	0.162829	1.118	0.2756
Mean dependent var	8.691347	S.D. dependent var	21.69067	
Sum squared resid	7283.988	S.E. of regression	18.19589	
Uncentered R-squared	0.508444	Centered R-squared	0.426598	
F(6, 22)	3.792632	P-value(F)	0.009577	
Log-likelihood	-117.5875	Akaike criterion	247.1750	
Schwarz criterion	255.1682	Hannan-Quinn	249.6186	
rho	-0.325667	Durbin's h	-3.395159	

P-value was highest for variable 4 (OIL)

Lampiran 5 Uji Normalitas

Tingkat Inflasi IHK

Test for normality of e_INF:

Doornik-Hansen test = 24.6112, with p-value 4.52625e-06

Shapiro-Wilk W = 0.796754, with p-value 4.49731e-05

Lilliefors test = 0.186326, with p-value ≈ 0.01

Jarque-Bera test = 82.5617, with p-value 1.18021e-18

Perubahan IHK

Test for normality of e_IHK:

Doornik-Hansen test = 7.35216, with p-value 0.025322

Shapiro-Wilk W = 0.939487, with p-value 0.0798656

Lilliefors test = 0.111654, with p-value ≈ 0.41

Jarque-Bera test = 11.189, with p-value 0.00371818

WPI

Test for normality of e_WPI:

Doornik-Hansen test = 23.103, with p-value 9.62156e-06

Shapiro-Wilk W = 0.859289, with p-value 0.00144794

Lilliefors test = 0.191781, with p-value ≈ 0.01

Jarque-Bera test = 21.5687, with p-value 2.07217e-05

Lampiran 6 Uji Autokorelasi

Tingkat Inflasi IHK

Breusch-Godfrey test for autocorrelation up to order 8
 OLS, using observations 1991-2021 (T = 31)
 Dependent variable: uhat

	coefficient	std. error	t-ratio	p-value	
const	-8.42695	2.27240	-3.708	0.0019	**
UGAP_INF	-0.0472717	0.399118	-0.1184	0.9072	
OIL	-0.0254098	0.0470149	-0.5405	0.5963	
PALM	0.0397572	0.0504671	0.7878	0.4423	
FPI	-0.246508	0.300673	-0.8199	0.4243	
EXR	-0.0822543	0.0587384	-1.400	0.1805	
INFR_1	0.995347	0.202877	4.906	0.0002	**
uhat_1	-1.61434	0.266238	-6.064	1.64e-05	**
uhat_2	-0.375324	0.190718	-1.968	0.0667	*
uhat_3	-0.191462	0.203769	-0.9396	0.3614	
uhat_4	-0.0904774	0.209897	-0.4311	0.6722	
uhat_5	0.0798623	0.200349	0.3986	0.6954	
uhat_6	0.359283	0.210825	1.704	0.1077	
uhat_7	0.631598	0.213304	2.961	0.0092	**
uhat_8	0.521381	0.171189	3.046	0.0077	**

Unadjusted R-squared = 0.737684

Test statistic: LMF = 5.624380,
 with p-value = $P(F(8,16) > 5.62438) = 0.00167$

Alternative statistic: $TR^2 = 22.868191$,
 with p-value = $P(\text{Chi-square}(8) > 22.8682) = 0.00354$

Ljung-Box $Q' = 8.16378$,
 with p-value = $P(\text{Chi-square}(8) > 8.16378) = 0.418$

Durbin-Watson statistic = 2.74557
 p-value = 0.960173

Perubahan IHK

Breusch-Godfrey test for autocorrelation up to order 8
 OLS, using observations 1991-2021 (T = 31)
 Dependent variable: uhat

	coefficient	std. error	t-ratio	p-value	
const	-6.42650	2.61115	-2.461	0.0256	**
UGAP_IHK	-0.114335	0.0742624	-1.540	0.1432	
OIL	0.00299679	0.0195146	0.1536	0.8799	
PALM	0.00793933	0.0218277	0.3637	0.7208	
FPI	-0.0299082	0.131107	-0.2281	0.8224	
EXR	0.00247619	0.0264725	0.09354	0.9266	
d_CPII_1	1.18202	0.448640	2.635	0.0180	**
uhat_1	-1.39590	0.480072	-2.908	0.0103	**
uhat_2	-0.338591	0.248571	-1.362	0.1920	
uhat_3	0.176683	0.246876	0.7157	0.4845	
uhat_4	0.148255	0.290628	0.5101	0.6169	
uhat_5	0.114967	0.279596	0.4112	0.6864	
uhat_6	-0.0393263	0.286560	-0.1372	0.8926	
uhat_7	0.251616	0.252864	0.9951	0.3345	
uhat_8	0.159791	0.238799	0.6691	0.5129	

Unadjusted R-squared = 0.446216

Test statistic: LMF = 1.611519,
with p-value = $P(F(8,16) > 1.61152) = 0.198$

Alternative statistic: $TR^2 = 13.832708$,
with p-value = $P(\text{Chi-square}(8) > 13.8327) = 0.0862$

Ljung-Box $Q' = 7.15493$,
with p-value = $P(\text{Chi-square}(8) > 7.15493) = 0.52$

Durbin-Watson statistic = 2.41135
p-value = 0.793048

WPI

Breusch-Godfrey test for autocorrelation up to order 7
OLS, using observations 1991-2018 (T = 28)
Dependent variable: uhat

	coefficient	std. error	t-ratio	p-value
const	-3.18301	5.12132	-0.6215	0.5442
UGAP_WPI	0.101294	1.49152	0.06791	0.9468
OIL	0.105798	0.177366	0.5965	0.5604
PALM	0.0921823	0.142101	0.6487	0.5270
FPI	-0.910297	1.10950	-0.8205	0.4257
EXR	-0.247555	0.187891	-1.318	0.2088
WPI_1	0.653878	0.248450	2.632	0.0197 **
uhat_1	-1.22057	0.353698	-3.451	0.0039 ***
uhat_2	-0.156543	0.337865	-0.4633	0.6502
uhat_3	-0.362556	0.324114	-1.119	0.2821
uhat_4	-0.382092	0.325326	-1.174	0.2598
uhat_5	0.0372622	0.356269	0.1046	0.9182
uhat_6	0.0702020	0.360446	0.1948	0.8484
uhat_7	0.105225	0.288361	0.3649	0.7206

Unadjusted R-squared = 0.531039

Test statistic: LMF = 2.264746,
with p-value = $P(F(7,14) > 2.26475) = 0.0914$

Alternative statistic: $TR^2 = 14.869088$,
with p-value = $P(\text{Chi-square}(7) > 14.8691) = 0.0377$

Ljung-Box $Q' = 8.6148$,
with p-value = $P(\text{Chi-square}(7) > 8.6148) = 0.282$

Durbin-Watson statistic = 2.71868
p-value = 0.947243

Lampiran 7 Uji Multikolinearitas

Tingkat Inflasi IHK

Variance Inflation Factors
 Minimum possible value = 1.0
 Values > 10.0 may indicate a collinearity problem

UGAP_INF	1.201
OIL	1.216
PALM	1.166
FPI	1.158
EXR	1.257
INFR_1	1.259

$VIF(j) = 1/(1 - R(j)^2)$, where $R(j)$ is the multiple correlation coefficient between variable j and the other independent variables

Belsley-Kuh-Welsch collinearity diagnostics:

variance proportions

lambda	cond	const	UGAP_INF	OIL	PALM	FPI	EXR	INFR_1
2.415	1.000	0.038	0.017	0.045	0.014	0.052	0.005	0.043
1.409	1.309	0.014	0.192	0.037	0.000	0.018	0.233	0.007
1.018	1.541	0.000	0.001	0.000	0.640	0.000	0.001	0.071
0.766	1.776	0.014	0.026	0.519	0.000	0.283	0.080	0.000
0.673	1.894	0.014	0.700	0.215	0.001	0.042	0.145	0.010
0.546	2.103	0.014	0.000	0.086	0.106	0.395	0.272	0.229
0.174	3.729	0.906	0.065	0.097	0.238	0.210	0.263	0.641

lambda = eigenvalues of inverse covariance matrix (smallest is 0.173643)
 cond = condition index
 note: variance proportions columns sum to 1.0

According to BKW, cond >= 30 indicates "strong" near linear dependence, and cond between 10 and 30 "moderately strong". Parameter estimates whose variance is mostly associated with problematic cond values may themselves be considered problematic.

Count of condition indices >= 30: 0
 Count of condition indices >= 10: 0

No evidence of excessive collinearity

Perubahan IHK

Variance Inflation Factors
 Minimum possible value = 1.0
 Values > 10.0 may indicate a collinearity problem

UGAP_IHK	1.488
OIL	1.141
PALM	1.145
FPI	1.185
EXR	1.377
d_CPII_1	1.608

$VIF(j) = 1/(1 - R(j)^2)$, where $R(j)$ is the multiple correlation coefficient between variable j and the other independent variables

Belsley-Kuh-Welsch collinearity diagnostics:

variance proportions

lambda	cond	const	UGAP_IHK	OIL	PALM	FPI	EXR	d_CPII_1
2.826	1.000	0.012	0.027	0.022	0.017	0.028	0.012	0.013
1.312	1.468	0.000	0.066	0.055	0.005	0.099	0.226	0.007
1.000	1.681	0.006	0.019	0.114	0.459	0.001	0.027	0.026
0.789	1.892	0.004	0.016	0.646	0.259	0.015	0.025	0.003
0.585	2.197	0.004	0.093	0.060	0.068	0.596	0.005	0.062
0.421	2.590	0.002	0.501	0.049	0.089	0.128	0.584	0.002
0.065	6.575	0.972	0.279	0.053	0.103	0.134	0.120	0.887

lambda = eigenvalues of inverse covariance matrix (smallest is 0.0653789)
 cond = condition index
 note: variance proportions columns sum to 1.0

According to BKW, cond ≥ 30 indicates "strong" near linear dependence, and cond between 10 and 30 "moderately strong". Parameter estimates whose variance is mostly associated with problematic cond values may themselves be considered problematic.

Count of condition indices ≥ 30 : 0
 Count of condition indices ≥ 10 : 0

No evidence of excessive collinearity

WPI

Variance Inflation Factors
 Minimum possible value = 1.0
 Values > 10.0 may indicate a collinearity problem

UGAP_WPI	1.266
OIL	1.242
PALM	1.132
FPI	1.260
EXR	1.341
WPI_1	1.192

$VIF(j) = 1/(1 - R(j)^2)$, where $R(j)$ is the multiple correlation coefficient between variable j and the other independent variables

Belsley-Kuh-Welsch collinearity diagnostics:

variance proportions

lambda	cond	const	UGAP_WPI	OIL	PALM	FPI	EXR	WPI_1
2.160	1.000	0.057	0.016	0.071	0.010	0.064	0.003	0.052
1.446	1.222	0.031	0.194	0.031	0.001	0.001	0.208	0.001
1.191	1.347	0.005	0.020	0.013	0.448	0.001	0.009	0.167
0.813	1.630	0.003	0.177	0.080	0.010	0.301	0.167	0.049
0.624	1.861	0.022	0.035	0.571	0.074	0.017	0.052	0.384
0.536	2.008	0.047	0.507	0.181	0.397	0.034	0.084	0.143
0.230	3.063	0.834	0.051	0.054	0.060	0.582	0.477	0.205

lambda = eigenvalues of inverse covariance matrix (smallest is 0.230235)
 cond = condition index
 note: variance proportions columns sum to 1.0

According to BKW, cond ≥ 30 indicates "strong" near linear dependence, and cond between 10 and 30 "moderately strong". Parameter estimates whose variance is mostly associated with problematic cond values may themselves be considered problematic.

Count of condition indices ≥ 30 : 0
 Count of condition indices ≥ 10 : 0

No evidence of excessive collinearity

Lampiran 8 Uji Heteroskedastisitas

Inflasi IHK

White's test for heteroskedasticity
 OLS, using observations 1991-2021 (T = 31)
 Dependent variable: uhat^2

	coefficient	std. error	t-ratio	p-value
const	-25.7387	16.8946	-1.523	0.2250
UGAP_INF	11.3570	11.0805	1.025	0.3808
OIL	-2.40372	1.15256	-2.086	0.1283
PALM	3.15261	0.598986	5.263	0.0134 **
FPI	-4.49928	4.27087	-1.053	0.3695
EXR	1.32994	2.68662	0.4950	0.6546
INFR_1	2.39439	3.23147	0.7410	0.5124
sq_UGAP_INF	1.34506	0.564127	2.384	0.0972 *
X2_X3	0.486262	0.182411	2.666	0.0760 *
X2_X4	0.105694	0.0822861	1.284	0.2892
X2_X5	-2.56318	0.496028	-5.167	0.0141 **
X2_X6	-1.01143	0.757119	-1.336	0.2739
X2_X7	0.395669	1.18635	0.3335	0.7607
sq_OIL	-0.0310273	0.00889973	-3.486	0.0399 **
X3_X4	-0.0517185	0.00875388	-5.908	0.0097 ***
X3_X5	0.723140	0.219861	3.289	0.0461 **
X3_X6	-0.215428	0.0164639	-13.08	0.0010 ***
X3_X7	0.107299	0.105976	1.012	0.3859
sq_PALM	0.168820	0.0277437	6.085	0.0089 ***
X4_X5	0.0921524	0.100656	0.9155	0.4274
X4_X6	0.0987125	0.0129964	7.595	0.0047 ***
X4_X7	-0.897357	0.132471	-6.774	0.0066 ***
sq_FPI	-0.709485	0.375622	-1.889	0.1553
X5_X6	0.256830	0.273306	0.9397	0.4167
X5_X7	1.17485	0.847857	1.386	0.2599
sq_EXR	-0.00976190	0.0630148	-0.1549	0.8867
X6_X7	0.0601402	0.151972	0.3957	0.7188
sq_INFR_1	-0.684947	0.110181	-6.217	0.0084 ***

Unadjusted R-squared = 0.999777

Test statistic: $TR^2 = 30.993094$,
 with p-value = $P(\text{Chi-square}(27) > 30.993094) = 0.271422$

Perubahan IHK

White's test for heteroskedasticity
 OLS, using observations 1991-2021 (T = 31)
 Dependent variable: uhat^2

	coefficient	std. error	t-ratio	p-value
const	-52.5001	34.0619	-1.541	0.2209
UGAP_IHK	-3.58171	1.94654	-1.840	0.1630
OIL	-0.177122	0.523562	-0.3383	0.7574
PALM	0.278338	0.414310	0.6718	0.5498
FPI	-5.24743	3.56136	-1.473	0.2371
EXR	3.08780	1.89588	1.629	0.2019
d_CPII_1	11.2110	9.20428	1.218	0.3103
sq_UGAP_IHK	-0.0468315	0.0287888	-1.627	0.2023
X2_X3	-0.00503049	0.0149731	-0.3360	0.7590
X2_X4	0.00880033	0.0155557	0.5657	0.6111
X2_X5	0.00690539	0.0673355	0.1026	0.9248
X2_X6	0.0236661	0.0323518	0.7315	0.5174
X2_X7	0.634771	0.276783	2.293	0.1056
sq_OIL	0.00506966	0.00347783	1.458	0.2410
X3_X4	-0.00511898	0.00434192	-1.179	0.3234
X3_X5	-0.126521	0.0689581	-1.835	0.1639

X3_X6	-0.000932133	0.00539519	-0.1728	0.8738
X3_X7	0.116258	0.0834483	1.393	0.2579
sq_PALM	-0.00190691	0.00573295	-0.3326	0.7613
X4_X5	0.0257247	0.0519838	0.4949	0.6547
X4_X6	-0.0253310	0.0234346	-1.081	0.3589
X4_X7	-0.00500694	0.0563096	-0.08892	0.9348
sq_FPI	0.377845	0.230780	1.637	0.2001
X5_X6	0.203463	0.120066	1.695	0.1887
X5_X7	0.843832	0.598818	1.409	0.2536
sq_EXR	-0.00537286	0.0175613	-0.3059	0.7796
X6_X7	-0.554803	0.279612	-1.984	0.1415
sq_d_CPII_1	-0.485561	0.737522	-0.6584	0.5573

Unadjusted R-squared = 0.976945

Test statistic: $TR^2 = 30.285289$,
with p-value = $P(\text{Chi-square}(27) > 30.285289) = 0.301489$

WPI

White's test for heteroskedasticity
OLS, using observations 1991-2018 (T = 28)
Dependent variable: uhat^2

	coefficient	std. error	t-ratio	p-value	
const	35.2327	193.090	0.1825	0.8577	
UGAP_WPI	-2.35353	28.2094	-0.08343	0.9346	
OIL	-8.55641	3.95048	-2.166	0.0468	**
PALM	8.36182	5.65280	1.479	0.1598	
FPI	33.0857	49.8844	0.6632	0.5172	
EXR	5.31817	11.4989	0.4625	0.6504	
WPI_1	4.72748	6.57184	0.7194	0.4830	
sq_UGAP_WPI	2.02555	10.6365	0.1904	0.8515	
sq_OIL	0.141099	0.146212	0.9650	0.3498	
sq_PALM	-0.166617	0.147296	-1.131	0.2757	
sq_FPI	-4.79000	5.89840	-0.8121	0.4294	
sq_EXR	0.195065	0.145234	1.343	0.1992	
sq_WPI_1	0.0195717	0.0820592	0.2385	0.8147	

Unadjusted R-squared = 0.787069

Test statistic: $TR^2 = 22.037933$,
with p-value = $P(\text{Chi-square}(12) > 22.037933) = 0.037097$

Lampiran 9 Uji Stasioneritas

ADF

Augmented Dickey-Fuller test for INFR
testing down from 9 lags, criterion AIC
sample size 33
unit-root null hypothesis: $a = 1$

test with constant
including 0 lags of (1-L)INFR
model: $(1-L)y = b_0 + (a-1)y(-1) + e$
estimated value of $(a - 1)$: -0.78073
test statistic: $\tau_c(1) = -4.44382$
p-value 0.001263
1st-order autocorrelation coeff. for e: 0.016

Augmented Dickey-Fuller test for d_INFR
testing down from 9 lags, criterion AIC
sample size 33
unit-root null hypothesis: $a = 1$

test with constant
including one lag of (1-L)d_INFR
model: $(1-L)y = b_0 + (a-1)y(-1) + \dots + e$
estimated value of $(a - 1)$: -1.93813
test statistic: $\tau_c(1) = -7.18363$
asymptotic p-value 1.046e-10
1st-order autocorrelation coeff. for e: -0.096

Augmented Dickey-Fuller test for UNR
testing down from 9 lags, criterion AIC
sample size 33
unit-root null hypothesis: $a = 1$

test with constant
including 0 lags of (1-L)UNR
model: $(1-L)y = b_0 + (a-1)y(-1) + e$
estimated value of $(a - 1)$: -0.139891
test statistic: $\tau_c(1) = -1.79845$
p-value 0.3747
1st-order autocorrelation coeff. for e: 0.074

Augmented Dickey-Fuller test for d_UNR
testing down from 9 lags, criterion AIC
sample size 33
unit-root null hypothesis: $a = 1$

test with constant
including 0 lags of (1-L)d_UNR
model: $(1-L)y = b_0 + (a-1)y(-1) + e$
estimated value of $(a - 1)$: -0.950721
test statistic: $\tau_c(1) = -5.26288$
p-value 0.0001
1st-order autocorrelation coeff. for e: 0.005

(A)DF-GLS

Augmented Dickey-Fuller (GLS) test for INFR
testing down from 9 lags, criterion modified AIC, Perron-Qu
sample size 31
unit-root null hypothesis: $a = 1$

test with constant
including 7 lags of (1-L)INFR
model: $(1-L)y = b_0 + (a-1)y(-1) + \dots + e$
estimated value of $(a - 1)$: -0.55642
test statistic: $\tau = -1.15786$
asymptotic p-value 0.2258
1st-order autocorrelation coeff. for e: 0.002
lagged differences: $F(7, 23) = 0.171 [0.9888]$

Augmented Dickey-Fuller (GLS) test for d_INFR
testing down from 9 lags, criterion modified AIC, Perron-Qu
sample size 33
unit-root null hypothesis: $a = 1$

test with constant
including 0 lags of (1-L)d_INFR
model: $(1-L)y = b_0 + (a-1)y(-1) + e$
estimated value of $(a - 1)$: -1.34807
test statistic: $\tau = -8.12661$
asymptotic p-value 2.192e-14
1st-order autocorrelation coeff. for e: -0.151

Augmented Dickey-Fuller (GLS) test for UNR
testing down from 9 lags, criterion modified AIC, Perron-Qu
sample size 33
unit-root null hypothesis: $a = 1$

test with constant
including 0 lags of (1-L)UNR
model: $(1-L)y = b_0 + (a-1)y(-1) + e$
estimated value of $(a - 1)$: -0.0925085
test statistic: $\tau = -1.33164$
asymptotic p-value 0.1698
1st-order autocorrelation coeff. for e: 0.092

Augmented Dickey-Fuller (GLS) test for d_UNR
 testing down from 9 lags, criterion modified AIC, Perron-Qu
 sample size 33
 unit-root null hypothesis: $a = 1$

test with constant
 including 3 lags of $(1-L)d_UNR$
 model: $(1-L)y = b_0 + (a-1)y(-1) + \dots + e$
 estimated value of $(a - 1)$: -0.732604
 test statistic: tau = -2.07842
 asymptotic p-value 0.03618
 1st-order autocorrelation coeff. for e: 0.037
 lagged differences: $F(3, 29) = 0.618$ [0.6088]

KPSS

KPSS test for INFR

T = 33
 Lag truncation parameter = 3
 Test statistic = 0.407936

	10%	5%	1%
Critical values:	0.353	0.462	0.714
Interpolated p-value	0.075		

KPSS test for d_INFR

T = 33
 Lag truncation parameter = 3
 Test statistic = 0.0750228

	10%	5%	1%
Critical values:	0.353	0.462	0.714
P-value > .10			

KPSS test for UNR

T = 33
 Lag truncation parameter = 3
 Test statistic = 0.245645

	10%	5%	1%
Critical values:	0.353	0.462	0.714
P-value > .10			

KPSS test for d_UNR

T = 33
 Lag truncation parameter = 3
 Test statistic = 0.242802

	10%	5%	1%
Critical values:	0.353	0.462	0.714
P-value > .10			

Lampiran 10 Uji Panjang *Lag* Optimal

VAR system, maximum lag order 3

The asterisks below indicate the best (that is, minimized) values of the respective information criteria, AIC = Akaike criterion, BIC = Schwarz Bayesian criterion and HQC = Hannan-Quinn criterion.

lags	loglik	p(LR)	AIC	BIC	HQC
1	-165.68257		10.405004*	10.677097*	10.496555*
2	-165.48427	0.98275	10.635410	11.088898	10.787995
3	-159.18981	0.01347	10.496352	11.131234	10.709971

Lampiran 11 *Johansen Test*

```

Johansen test:
Number of equations = 2
Lag order = 1
Estimation period: 1990 - 2022 (T = 33)
Case 3: Unrestricted constant

Log-likelihood = -72.0326 (including constant term: -165.683)

Rank Eigenvalue Trace test p-value Lmax test p-value
  0   0.41251   20.936 [0.0059]   17.552 [0.0128]
  1   0.097456   3.3838 [0.0658]   3.3838 [0.0658]

Corrected for sample size (df = 30)
Rank Trace test p-value
  0   20.936 [0.0083]
  1   3.3838 [0.0787]

eigenvalue   0.41251   0.097456

beta (cointegrating vectors)
INFR         -0.10484   -0.0014375
UNR          -0.0045683   0.44427

alpha (adjustment vectors)
INFR         7.4558   -0.86840
UNR         -0.097790   -0.31623

renormalized beta
INFR         1.0000   -0.0032356
UNR         0.043575   1.0000

renormalized alpha
INFR        -0.78164   -0.38581
UNR         0.010252   -0.14049

long-run matrix (alpha * beta')
              INFR      UNR
INFR        -0.78039   -0.41987
UNR         0.010707   -0.14005

```

Lampiran 12 *Granger Causality Test*

```
Granger Causality
number of lags (no zero) 1
ssr based F test:      F=0.3262 , p=0.5723 , df_denom=29, df_num=1
ssr based chi2 test:  chi2=0.3599 , p=0.5485 , df=1
likelihood ratio test: chi2=0.3579 , p=0.5497 , df=1
parameter F test:     F=0.3262 , p=0.5723 , df_denom=29, df_num=1
```

```
Granger Causality
number of lags (no zero) 1
ssr based F test:      F=0.1305 , p=0.7206 , df_denom=29, df_num=1
ssr based chi2 test:  chi2=0.1440 , p=0.7044 , df=1
likelihood ratio test: chi2=0.1436 , p=0.7047 , df=1
parameter F test:     F=0.1305 , p=0.7206 , df_denom=29, df_num=1
```

Lampiran 13 *Vector Error Correction Model (VECM)*

VECM system, lag order 1
 Maximum likelihood estimates, observations 1990-2022 (T = 33)
 Cointegration rank = 1
 Case 3: Unrestricted constant

beta (cointegrating vectors, standard errors in parentheses)

```
INFR      1.0000
          (0.0000)
UNR       0.043575
          (0.90837)
```

alpha (adjustment vectors)

```
INFR     -0.78164
UNR       0.010252
```

Log-likelihood = -167.37445
 Determinant of covariance matrix = 87.195443
 AIC = 10.5075
 BIC = 10.7796
 HQC = 10.5991

Equation 1: d_INFR

	coefficient	std. error	t-ratio	p-value	
const	6.95793	2.30047	3.025	0.0050	***
EC1	-0.781639	0.175533	-4.453	0.0001	***

Mean dependent var	-0.066851	S.D. dependent var	12.12227
Sum squared resid	2867.945	S.E. of regression	9.618439
R-squared	0.390108	Adjusted R-squared	0.370434
rho	0.016235	Durbin-Watson	1.964688

Equation 2: d_UNR

	coefficient	std. error	t-ratio	p-value
const	-0.00122803	0.251624	-0.004880	0.9961
EC1	0.0102520	0.0191997	0.5340	0.5972

Mean dependent var	0.090909	S.D. dependent var	1.040241
Sum squared resid	34.31169	S.E. of regression	1.052059
R-squared	0.009114	Adjusted R-squared	-0.022851
rho	0.030817	Durbin-Watson	1.924031

Cross-equation covariance matrix:

	INFR	UNR
INFR	86.907	1.7794
UNR	1.7794	1.0397

determinant = 87.1954

Lampiran 14 *Impulse Response Function (IRF)*

Responses to a one-standard error shock in INFR

period	INFR	UNR
1	9.3224	0.19088
2	2.0292	0.28654
3	0.43333	0.30747
4	0.084150	0.31205
5	0.0077467	0.31305
6	-0.0089710	0.31327
7	-0.012629	0.31332
8	-0.013429	0.31333
9	-0.013604	0.31333
10	-0.013643	0.31333

Responses to a one-standard error shock in UNR

period	INFR	UNR
1	0.0000	1.0017
2	-0.034117	1.0021
3	-0.041582	1.0022
4	-0.043215	1.0022
5	-0.043572	1.0022
6	-0.043651	1.0022
7	-0.043668	1.0022
8	-0.043671	1.0022
9	-0.043672	1.0022
10	-0.043672	1.0022

Lampiran 15 *Forecast Error Variance Decomposition (FEVD)*

Decomposition of variance for INFR

period	std. error	INFR	UNR
1	9.32242	100.0000	0.0000
2	9.54076	99.9987	0.0013
3	9.55068	99.9968	0.0032
4	9.55115	99.9948	0.0052
5	9.55126	99.9927	0.0073
6	9.55136	99.9906	0.0094
7	9.55147	99.9885	0.0115
8	9.55158	99.9864	0.0136
9	9.55169	99.9843	0.0157
10	9.5518	99.9823	0.0177

Decomposition of variance for UNR

period	std. error	INFR	UNR
1	1.01968	3.5042	96.4958
2	1.4581	5.5754	94.4246
3	1.79583	6.6069	93.3931
4	2.0801	7.1749	92.8251
5	2.33008	7.5230	92.4770
6	2.55576	7.7556	92.2444
7	2.76306	7.9213	92.0787
8	2.95587	8.0452	91.9548
9	3.13684	8.1414	91.8586
10	3.30793	8.2183	91.7817

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1. SD Inpres Minasa Upa I (2006-2012)
2. MTsN 1 Kota Makassar (2012-2015)
3. MAN 2 Kota Makassar (2015-2018)

Pendidikan Nonformal

1. Basic Learning Skills, Character & Creativity (BALANCE) - Universitas Hasanuddin (2018)
2. Fast Track Data Analytics Scholarship - Digital Skola (2023)

Riwayat Prestasi

Prestasi Akademik

1. Medali Emas Kompetisi Sains Hardiknas Nasional (KSHN) Bidang Ekonomi Mahasiswa - CV Cyvia Cahaya Prestasi (2023)
2. Medali Perak Kompetisi Sains Madrasah (KSM) Tingkat Nasional Bidang Ekonomi SMA - Kementerian Agama Republik Indonesia (2017)

Prestasi Nonakademik

1. Kontestan 100 Besar Lomba Menulis Puisi Ke-13 Tingkat Nasional - Tulis.me (2022)

Pengalaman Organisasi

1. Anggota Indite Community, Proyek Antologi Puisi "Iridescent" - Pame Publishing (2021)

Makassar, 9 Januari 2024

Jeremy Novandi Sarnio