DAFTAR PUSTAKA

Arellano, M. (1987). Computing Robust Standard Errors for Within-Groups Estimators. *Oxford Bulletin of Economics and Statistics*, *49*(4), 431–434.

Ariefianto, D. M., & Trinugroho, I. (2020). *Statistik dan Ekonometrika Terapan 1: Aplikasi dengan Stata*. Erlangga.

Arieska, D. I., & Pusponegoro, N. H. (2016). Pendugaan Standard Error dan Confidence Interval Koefisien Gini dengan Metode Bootstrap: Terapan pada Data Susenas Provinsi Papua Barat Tahun 2013. *Jurnal Aplikasi Statistika & Komputasi Statistik*, *8*(2), 57–66.

Astuti, T. D., & Maruddani, D. A. I. (2009). Analisis Data Panel untuk Menguji Pengaruh Risiko Terhadap Return Saham Sektor Farmasi dengan Least Square Dummy Variable. *Media Statistika*, *2*, 71–80.

Aziz, A. (2010). *Ekonometrika: Teori dan Praktik Eksperimen dengan MATLAB*. UIN Maliki Pres.

Badan Pusat Statistik. (2022). *Indikator Pasar Tenaga Kerja Provinsi Sulawesi Selatan 2022*. BPS Provinsi Sulawesi Selatan.

Baltagi, B. H. (2021). Econometric Analysis of Panel Data. In *Springer* (Sixth Edition). Springer.

Cahyono, T. (2018). *Statistika Terapan dan Indikator Kesehatan*. Deepublish.

Cameron, A. C., & Miller, D. L. (2015). A Practitioner's Guide to Cluster-Robust Inference. *Journal of Human Resources*, 317–372.

Cameron, A. C., & Trivedi, P. K. (2005). *Microeconometrics: Methods and Applications*. Cambridge University Press.

Ekananda, M. (2015). *Ekonometrika Dasar : Untuk penelitian di bidang ekonomi, sosial dan bisnis*. Mitra Wacana Media.

Freund, R. J., Wilson, W. J., & Sa, P. (2006). *Regression Analysis: Statistical esponse Variable* (2nd Edition). Academic Press.

. *Econometric analysis* (Seventh Edition). Prentice Hall.

. *Basic econometrics*. McGraw Hill.

Gujarati, D. N., & Porter, D. C. (2009). *Basic Econometrics* (Fifth Edition). McGraw-Hill/Irwin.

Hansen, B. E. (2020). *Econometrics*. Princeton University Press.

Hansen, C. B. (2007). Asymptotic properties of a robust variance matrix estimator for panel data when T is large. *Journal of Econometrics*, *141*(2), 597–620.

Hsiao, C. (2022). *Analysis of Panel Data* (Fourth Edition). Cambridge University Press.

Huang, F. L., & Li, X. (2022). Using cluster-robust standard errors when analyzing group-randomized trials with few clusters. *Behavior Research Methods*, 1–19. https://doi.org/10.3758/s13428-021-01627-0/Published

Judge, & G., G. (1998). *Introduction to the Teory and Practice of Econometrics*. John Wiley & Sons.

Kutner, M. H., Nachtsheim, C., Neter, J., & Li, W. (2005). *Applied Linear Statistical Models* (5th edition). McGraw-Hill.

Liang, K.-Y., & Zeger, S. L. (1986). Longitudinal Data Analysis Using Generalized Linear Models. *Biometrika*, *73*(1), 13–22.

Metanda, L. A. H., & Oktora, S. I. (2022). Analysis of Net Enumeration Rate of Senior High School Using Fixed-Effect Clustered-Robust Standard Error Model. *Indonesian Journal of Statistics and Its Applications*, *6*(2), 270–286.

Millo, G. (2017). Robust Standard Error Estimators for Panel Models: a Unifying Approach. *Journal of Statistical Software*, *82*, 1–27.

Nachrowi, N. D. (2006). Ekonometrika untuk Analisis Ekonomi dan Keuangan: Pendekatan Populer dan Praktis. *Lembaga Penerbit FE UI*.

Nurlaila, Z., Susilawati, M., & Nilakusmawati, D. P. E. (2017). Penerapan Metode Newey West dalam Mengoreksi Standard Error Ketika Terjadi Heteroskedastisitas dan Autokorelasi pada Analisis Regresi. *E-Jurnal Matematika*, *6*(1), 7–14.

..., & Wildani, Z. (2022). Pemodelan Tingkat Pengangguran nsi Jambi Menggunakan Regresi Data Panel. *Jurnal Sains Dan* 157–162.

8). Estimating Standard Errors in Finance Panel Data Sets: roaches. *The Review of Financial Studies*, *22*(1), 435–480.

Prasanti, T. A., Wuryandari, T., & Rusgiyono, A. (2015). Aplikasi Regresi Data Panel untuk Pemodelan Tingkat Pengangguran Terbuka Kabupaten/Kota di Provinsi Jawa Tengah. *Jurnal Gaussian*, *4*(3), 687–696. http://ejournal-s1.undip.ac.id/index.php/gaussian

Rizki, M. I., Gumelar, F., Cerelia, J. J., Ammar, T., & Nugraha, A. (2022). Pemodelan Regresi Data Panel pada Faktor yang Mempengaruhi Tingkat Pengangguran Terbuka di Jawa Barat. *In Prosiding Seminar Nasional Matematika Dan Statistika*, *2*.

Sembodo, H. (2013). Pemodelan Regresi Panel pada Pendapatan Asli Daerah (PAD) dan Dana Alokasi Umum (DAU) Terhadap Belanja Daerah. *Jurnal Mahasiswa Statistik*, *1*(4), 297–300.

Widarjono, A. (2005). *Ekonometrika: Teori dan Aplikasi untuk Ekonomi dan Bisnis*. Ekonisia.

Wooldridge, J. M. (2010). *Econometric Analysis of Cross Section and Panel Data* (Second Edition). MIT press.

Yudiaatmaja, F. (2013). *Analisis Regresi dengan menggunakan aplikasi komputer statistik SPSS*. Gramedia Pustaka Utama.

LAMPIRAN

Lampiran 1. Data

Kabupaten/Kota	Tahun	TPT	KP	APK	PDRB	IPM
Kepulauan Selayar	2020	2.44	152	78.29	46.73	67.38
Kepulauan Selayar	2021	2.81	153	76.37	49.54	67.76
Kepulauan Selayar	2022	1.49	103	80.7	53.76	68.35
Bulukumba	2020	3.42	379	89.22	33.34	68.99
Bulukumba	2021	3.14	381	90.9	36.06	69.62
Bulukumba	2022	1.26	345	90.28	38.88	70.34
Bantaeng	2020	4.27	497	89.32	45.68	68.73
Bantaeng	2021	4.07	500	91.31	50.95	68.99
Bantaeng	2022	2.72	504	91.36	61	69.69
Jeneponto	2020	2.31	445	81	25.7	64.26
Jeneponto	2021	2.38	449	79.32	27.26	64.56
Jeneponto	2022	2.21	581	79.53	28.69	65.13
Takalar	2020	4.16	531	75.3	34.03	67.31
Takalar	2021	3.93	534	77.12	36.76	67.72
Takalar	2022	2.63	538	85.05	40.18	68.31
Gowa	2020	6.44	407	90.32	28.2	70.14
Gowa	2021	4.3	411	88.95	30.44	70.29
Gowa	2022	3.26	416	89.63	32.7	70.99
Sinjai	2020	2.65	316	84.95	43.74	67.6
Sinjai	2021	2.61	319	86.68	47.05	67.75
Sinjai	2022	1.8	330	89.39	51.29	68.33
Maros	2020	6.28	242	88.98	47.73	69.86
Maros	2021	6.3	245	87.75	47.88	70.41
Maros	2022	5.04	249	89.07	58.31	71
Pangkep	2020	5.18	311	90.5	74.38	68.72
Pangkep	2021	5.86	313	92.64	79.19	69.21
⋮	⋮	⋮	⋮	⋮	⋮	⋮
Toraja Utara	2020	3,17	227	83,6	37,37	69,33
Toraja Utara	2021	2,61	229	83,49	39,16	69,75
Toraja Utara	2022	1,99	221	83,34	42,18	70,36
Makassar	2020	15,92	8101	90,52	125,32	82,25
Makassar	2021	13,18	8122	92,23	133,31	82,66
Makassar	2022	11,82	7188	89,73	145,89	83,12
Pare-Pare	2020	7,14	1525	92,07	48,5	77,86
	2021	6,72	1540	94,77	51,18	78,21
	2022	5,6	1559	95,75	56,16	78,54
	2020	10,37	746	107,53	43,66	78,06
	2021	⋮	⋮	⋮	⋮	⋮
	2022	8.2	754	110.58	51.18	78.91

Lampiran 2. Regresi Data Panel MEU, MET, dan MEA dengan *software R*

A. Model Efek Umum

```
> CEM = plm(TPT ~ KP+APK+PDRB+IPM, data_tpt2, index = c("Kabupaten.Kota","Tahun"), model = "pooling")
> summary(CEM)
Pooling Model

Call:
plm(formula = TPT ~ KP + APK + PDRB + IPM, data = data_tpt2,
    model = "pooling", index = c("Kabupaten.Kota",
        "Tahun"))

Balanced Panel: n = 24, T = 3, N = 72

Residuals:
     Min.   1st Qu.    Median   3rd Qu.      Max.
-4.342072 -0.832529 -0.034348  0.894071  3.478251

Coefficients:
             Estimate  Std. Error t-value  Pr(>|t|)
(Intercept) -1.6152e+01  4.4050e+00 -3.6668 0.0004873 ***
KP           7.7426e-04  1.9707e-04  3.9288 0.0002045 ***
APK          3.9766e-02  3.0218e-02  1.3160 0.1926676
PDRB         1.1244e-02  1.2219e-02  0.9202 0.3607548
IPM          2.2674e-01  8.4034e-02  2.6982 0.0088139 **
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Total Sum of Squares:    500.31
Residual Sum of Squares: 140.24
R-Squared:      0.71968
Adj. R-Squared: 0.70295
F-statistic: 43.0042 on 4 and 67 DF, p-value: < 2.22e-16
```

B. Model Efek Tetap

```
> FEM = plm(TPT ~ KP+APK+PDRB+IPM, data_tpt2, index = c("Kabupaten.Kota","Tahun"), model = "within")
> summary(FEM)
Oneway (individual) effect Within Model

Call:
plm(formula = TPT ~ KP + APK + PDRB + IPM, data = data_tpt2,
    model = "within", index = c("Kabupaten.Kota",
        "Tahun"))

Balanced Panel: n = 24, T = 3, N = 72

Residuals:
      Min.    1st Qu.     Median    3rd Qu.       Max.
-1.0040650 -0.3180892 -0.0026009  0.2689994  1.4165664

Coefficients:
        Estimate  Std. Error t-value Pr(>|t|)
KP    0.00192933  0.00087285  2.2104 0.032325 *
APK  -0.08630999  0.04397279 -1.9628 0.056011 .
PDRB -0.02101865  0.03613170 -0.5817 0.563722
IPM  -1.13151494  0.36432566 -3.1058 0.003317 **
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Total Sum of Squares:    40.243
Residual Sum of Squares: 14.616
R-Squared:      0.63681
Adj. R-Squared: 0.41394
F-statistic: 19.287 on 4 and 44 DF, p-value: 3.1578e-09
```

C. Model Efek Acak

```
> REM = plm(TPT ~ KP+APK+PDRB+IPM, index = c("Kabupaten.Kota","Tahun"), data = data_tpt2, model = "random")
> summary(REM)
Oneway (individual) effect Random Effect Model
   (Swamy-Arora's transformation)

Call:
plm(formula = TPT ~ KP + APK + PDRB + IPM, data = data_tpt2,
    model = "random", index = c("Kabupaten.Kota",
        "Tahun"))

Balanced Panel: n = 24, T = 3, N = 72

Effects:
                 var std.dev share
idiosyncratic 0.3322  0.5764 0.193
individual    1.3856  1.1771 0.807
theta: 0.728

Residuals:
     Min.   1st Qu.    Median   3rd Qu.      Max.
-1.896425 -0.532120  0.060765  0.454824  1.980476

                                                  lue  Pr(>|z|)
                                                 926  0.694628
                                                 417 9.371e-09 ***
                                                 452  0.963980
                                                 790  0.002077 **
                                                 185  0.358368

                                                  '*' 0.05 '.' 0.1 ' ' 1

                                                 e-10
```

Lampiran 3. Penentuan Model Regresi Data Panel

A. Uji Chow

```
> #Uji Chow: CEM vs FEM
> pFtest(FEM,CEM)

        F test for individual effects

data:  TPT ~ KP + APK + PDRB + IPM
F = 16.443, df1 = 23, df2 = 44, p-value = 9.289e-15
alternative hypothesis: significant effects
```

B. Uji Hausman

```
> #Uji Hausman
> phtest(FEM,REM)

        Hausman Test

data:  TPT ~ KP + APK + PDRB + IPM
chisq = 210.01, df = 4, p-value < 2.2e-16
alternative hypothesis: one model is inconsistent
```

Lampiran 4. Pengujian Asumsi Regresi Data Panel MET

A. Uji Normalitas

```
> #Uji Normalitas
> resi <- residuals(FEM)
> # Jarque-Bera Test
> jb_test <- jarque.bera.test(resi)
> print(jb_test)

        Jarque Bera Test

data:  resi
X-squared = 1.8703, df = 2, p-value = 0.3925
```

B. Uji Multikolinieritas

```
> #Mengecek multikol
> model1 <- lm(TPT ~ KP+APK+PDRB+IPM, data_tpt2 %>% filter(Tahun==2020))
> model2 <- lm(TPT ~ KP+APK+PDRB+IPM, data_tpt2 %>% filter(Tahun==2021))
> model3 <- lm(TPT ~ KP+APK+PDRB+IPM, data_tpt2 %>% filter(Tahun==2022))
> model4 <- lm(TPT ~ KP+APK+PDRB+IPM, data_tpt2)
>
> Multikol <- rbind(as.vector(vif(model1)),as.vector(vif(model2)),as.vector(vif(model3)),as.vector(vif(model4)))
> rownames(Multikol) <- c("Tahun 2020","Tahun 2021","Tahun 2022","Tahun 2020-2022")
> colnames(Multikol) <- c("KP","APK","PRDB","IPM")
> Multikol
                    KP      APK     PRDB      IPM
Tahun 2020      3.588157 1.848890 2.787973 3.484924
Tahun 2021      3.508335 1.907669 2.678315 3.553343
Tahun 2022      3.154341 2.260896 2.558123 4.400111
Tahun 2020-2022 3.123732 1.957702 2.498526 3.727041
```

C. Uji Homoskedastisitas

```
> bptest(FEM, studentize = F)

        Breusch-Pagan test

data:  FEM
BP = 14.224, df = 4, p-value = 0.006614
```

D. Uji Autokorelasi

```
> #uji autokorelasi / serial correlation present
> pbgtest(FEM)

        Breusch-Godfrey/Wooldridge test for serial correlation in panel models

data:  TPT ~ KP + APK + PDRB + IPM
chisq = 19.568, df = 3, p-value = 0.0002085
alternative hypothesis: serial correlation in idiosyncratic errors
```

Lampiran 5. Matriks Variansi Kovariansi tiap *Cluster*

Cluster 1. Kepulauan Selayar

```
$`1`
              KP           APK         PDRB          IPM
KP     63.6194091  0.775108167 -15.2909348 -2.09372544
APK     0.7751082  0.009443544  -0.1862974 -0.02550894
PDRB -15.2909348 -0.186297367   3.6751785  0.50322723
IPM   -2.0937254 -0.025508940   0.5032272  0.06890486
```

Cluster 2. Bulukumba

```
$`2`
               KP         APK         PDRB          IPM
KP    267.967710  7.0594819 -16.7174987 -4.36406525
APK     7.059482  0.1859787  -0.4404146 -0.11496922
PDRB -16.717499 -0.4404146   1.0429419  0.27225764
IPM   -4.364065 -0.1149692   0.2722576  0.07107224
```

Cluster 3. Bantaeng

```
$`3`
                KP          APK         PDRB           IPM
KP     0.002235153 -0.01202635  0.01961485  0.002027201
APK   -0.012026348  0.06470835 -0.10553863 -0.010907453
PDRB   0.019614846 -0.10553863  0.17213239  0.017789941
IPM    0.002027201 -0.01090745  0.01778994  0.001838596
```

Cluster 4. Jeneponto

```
$`1`
              KP           APK         PDRB          IPM
KP     63.6194091  0.775108167 -15.2909348 -2.09372544
APK     0.7751082  0.009443544  -0.1862974 -0.02550894
PDRB -15.2909348 -0.186297367   3.6751785  0.50322723
IPM   -2.0937254 -0.025508940   0.5032272  0.06890486
```

Cluster 5. Takalar

```
$`5`
              KP        APK       PDRB         IPM
KP    3.6152793 4.5476478 3.1957861 0.51262659
APK   4.5476478 5.7204710 4.0199687 0.64483127
PDRB  3.1957861 4.0199687 2.8249681 0.45314477
IPM   0.5126266 0.6448313 0.4531448 0.07268761
```

Cluster 6. Gowa

```
$`6`
              KP         APK       PDRB         IPM
KP     91.894554 -13.493387 47.402656  7.2976676
APK   -13.493387   1.981309 -6.960395 -1.0715570
PDRB   47.402656  -6.960395 24.452067  3.7644105
IPM     7.297668  -1.071557  3.764411  0.5795333
```

Cluster 7. Sinjai

```
$`7`
              KP        APK       PDRB         IPM
KP    10.0910929 3.3608747 5.7909352 0.52485272
APK    3.3608747 1.1193514 1.9286918 0.17480408
PDRB   5.7909352 1.9286918 3.3232209 0.30119514
IPM    0.5248527 0.1748041 0.3011951 0.02729837
```

Cluster 8. Maros

```
$`8`
               KP          APK          PDRB          IPM
KP     0.63930680 -0.26243356  0.030867078  0.117221634
APK   -0.26243356  0.10772821 -0.012670845 -0.048119136
PDRB   0.03086708 -0.01267085  0.001490328  0.005659707
IPM    0.11722163 -0.04811914  0.005659707  0.021493454
```

```
$`9`
        KP        APK       PDRB        IPM
1.6118255 0.8410228  6.189703 0.6009210
0.8410228 0.4388312  3.229681 0.3135502
6.1897032 3.2296807 23.769587 2.3076460
0.6009210 0.3135502  2.307646 0.2240355
```

Lampiran 5. Matriks Variansi Kovariansi tiap *Cluster* (Lanjutan)

Cluster 10. Barru

```
$`10`
             KP        APK      PDRB        IPM
KP   0.07989315 0.19345469 0.3403706 0.03606273
APK  0.19345469 0.46843459 0.8241793 0.08732292
PDRB 0.34037056 0.82417927 1.4500882 0.15363883
IPM  0.03606273 0.08732292 0.1536388 0.01627824
```

Cluster 11. Bone

```
$`11`
              KP         APK        PDRB          IPM
KP   0.091273331 0.56373388 0.11515871 0.0048639022
APK  0.563733884 3.48180449 0.71125777 0.0300410478
PDRB 0.115158707 0.71125777 0.14529466 0.0061367399
IPM  0.004863902 0.03004105 0.00613674 0.0002591945
```

Cluster 12. Soppeng

```
$`12`
              KP           APK       PDRB          IPM
KP   22.2992734  0.1265271858 -6.0660031 -0.772963254
APK   0.1265272  0.0007179215 -0.0344188 -0.004385832
PDRB -6.0660031 -0.0344188031  1.6501163  0.210266828
IPM  -0.7729633 -0.0043858319  0.2102668  0.026793348
```

Cluster 13. Wajo

```
$`13`
              KP          APK       PDRB          IPM
KP    0.18535181 -0.19341896  0.5514785  0.08813226
APK  -0.19341896  0.20183723 -0.5754807 -0.09196808
PDRB  0.55147848 -0.57548074  1.6408176  0.26222051
IPM   0.08813226 -0.09196808  0.2622205  0.04190569
```

Cluster 14. Sidrap

```
$`14`
             KP       APK       PDRB       IPM
KP   4.3396223 2.4552077  7.426397 0.9124764
APK  2.4552077 1.3890713  4.201598 0.5162475
PDRB 7.4263973 4.2015978 12.708796 1.5615212
IPM  0.9124764 0.5162475  1.561521 0.1918630
```

Cluster 15. Pinrang

```
$`15`
              KP          APK       PDRB          IPM
KP    0.5497927 -0.31231237  1.1751075  0.13980577
APK  -0.3123124  0.17741055 -0.6675254 -0.07941734
PDRB  1.1751075 -0.66752545  2.5116332  0.29881593
IPM   0.1398058 -0.07941734  0.2988159  0.03555095
```

Cluster 16. Enrekang

```
$`16`
             KP       APK      PDRB       IPM
KP   2.6145550 1.5887688 4.554847 0.5780156
APK  1.5887688 0.9654363 2.767813 0.3512388
PDRB 4.5548468 2.7678126 7.935052 1.0069677
IPM  0.5780156 0.3512388 1.006968 0.1277854
```

Cluster 17. Luwu

```
$`17`
              KP           APK        PDRB           IPM
KP    2.39047655  0.143733185 -0.84205542 -0.085269887
APK   0.14373319  0.008642305 -0.05063062 -0.005127058
      -0.84205542 -0.050630619  0.29661756  0.030036676
      -0.08526989 -0.005127058  0.03003668  0.003041634
```

```
`
         KP         APK       PDRB         IPM
17.9466851 0.54910746 7.0753477 3.16701207
 0.5491075 0.01680082 0.2164815 0.09689979
 7.0753477 0.21648155 2.7894034 1.24857105
 3.1670121 0.09689979 1.2485711 0.55887566
```

Lampiran 5. Matriks Variansi Kovariansi tiap *Cluster* (Lanjutan)

Cluster 19. Luwu Utara

```
$`19`
                KP          APK         PDRB          IPM
KP    0.0006113086 -0.04757319  0.05277085  0.007193168
APK  -0.0475731884  3.70223535 -4.10672750 -0.559785904
PDRB  0.0527708540 -4.10672750  4.55541292  0.620945982
IPM   0.0071931679 -0.55978590  0.62094598  0.084640826
```

Cluster 20. Luwu Timur

```
$`20`
             KP       APK       PDRB       IPM
KP   0.4259582 0.1610389   8.350195 0.2934724
APK  0.1610389 0.0608828   3.156897 0.1109510
PDRB 8.3501951 3.1568971 163.691553 5.7530345
IPM  0.2934724 0.1109510   5.753034 0.2021937
```

Cluster 21. Toraja Utara

```
$`21`
               KP            APK          PDRB           IPM
KP    0.307902037  0.0061879154 -0.123389252 -0.0250873314
APK   0.006187915  0.0001243587 -0.002479757 -0.0005041808
PDRB -0.123389252 -0.0024797571  0.049447246  0.0100535453
IPM  -0.025087331 -0.0005041808  0.010053545  0.0020440729
```

Cluster 22. Makassar

```
$`22`
             KP        APK       PDRB        IPM
KP   758.18482 47.4301892 216.898967 11.1660741
APK   47.43019  2.9671167  13.568669  0.6985223
PDRB 216.89897 13.5686693  62.049729  3.1943530
IPM   11.16607  0.6985223   3.194353  0.1644470
```

Cluster 23. Pare-Pare

```
$`23`
             KP        APK       PDRB        IPM
KP   43.981777 2.7841622 11.1928376 0.78784398
APK   2.784162 0.1762448  0.7085361 0.04987260
PDRB 11.192838 0.7085361  2.8484436 0.20049689
IPM   0.787844 0.0498726  0.2004969 0.01411262
```

Cluster 24. Palopo

```
$`24`
             KP        APK       PDRB       IPM
KP   30.971195 9.0100785 15.1034047 1.7010399
APK   9.010079 2.6211941  4.3938525 0.4948631
PDRB 15.103405 4.3938525  7.3653223 0.8295287
IPM   1.701040 0.4948631  0.8295287 0.0934267
```

Lampiran 6. Hasil Estimasi MET dengan *Standard Error Cluster Robust*

```
Residuals:
    Min      1Q  Median      3Q     Max
-1.0041 -0.3181 -0.0026  0.2690  1.4166

Coefficients:
      Estimate Cluster s.e. t value Pr(>|t|)
KP    0.001929     0.000577   3.344  0.00282 **
APK  -0.086310     0.031606  -2.731  0.01191 *
PDRB -0.021019     0.048043  -0.438  0.66583
IPM  -1.131515     0.456569  -2.478  0.02097 *
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.5764 on 44 degrees of freedom
Multiple R-squared(full model): 0.9708   Adjusted R-squared: 0.9529
Multiple R-squared(proj model): 0.6368   Adjusted R-squared: 0.4139
F-statistic(full model, *iid*):54.15 on 27 and 44 DF, p-value: < 2.2e-16
F-statistic(proj model): 354.2 on 4 and 23 DF, p-value: < 2.2e-16
```

Lampiran 7. Hasil Estimasi Parameter Model Terbaik

```
Residuals:
     Min       1Q   Median       3Q      Max
-1.05363 -0.32068 -0.01016  0.28660  1.40259

Coefficients:
     Estimate Cluster s.e. t value Pr(>|t|)
X1  0.0021703    0.0001811  11.981 2.28e-11 ***
X2 -0.0849245    0.0312008  -2.722   0.0122 *
X3 -1.3153909    0.1682359  -7.819 6.34e-08 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.5721 on 45 degrees of freedom
Multiple R-squared(full model): 0.9706   Adjusted R-squared: 0.9536
Multiple R-squared(proj model): 0.634   Adjusted R-squared: 0.4226
F-statistic(full model, *iid*):57.06 on 26 and 45 DF, p-value: < 2.2e-16
F-statistic(proj model): 435.1 on 3 and 23 DF, p-value: < 2.2e-16
```

	effect <dbl>
Kabupaten.Kota.1	97.83708
Kabupaten.Kota.2	101.07877
Kabupaten.Kota.3	101.24206
Kabupaten.Kota.4	93.06266
Kabupaten.Kota.5	98.29319
Kabupaten.Kota.6	104.08599
Kabupaten.Kota.7	98.35048
Kabupaten.Kota.8	105.49940
Kabupaten.Kota.9	103.38160
Kabupaten.Kota.10	106.85416

	effect <dbl>
Kabupaten.Kota.11	96.35355
Kabupaten.Kota.12	102.22337
Kabupaten.Kota.13	101.93051
Kabupaten.Kota.14	105.56528
Kabupaten.Kota.15	104.32713
Kabupaten.Kota.16	105.78538
Kabupaten.Kota.17	105.47709
Kabupaten.Kota.18	99.98313
Kabupaten.Kota.19	102.80953
Kabupaten.Kota.20	108.55885

	effect <dbl>
Kabupaten.Kota.21	101.02127
Kabupaten.Kota.22	113.16905
Kabupaten.Kota.23	114.00903
Kabupaten.Kota.24	119.98764

Lampiran 8. Hasil Estimasi Model Terbaik

Kabupaten/Kota	Model
Kepulauan Selayar	$\hat{y}_{1,t} = 97.837 + 0.00217X_{1,1,t} - 0.0849X_{2,1,t} - 1.3154X_{4,1,t}$
Bulukumba	$\hat{y}_{2,t} = 101.079 + 0.00217X_{1,2,t} - 0.0849X_{2,2,t} - 1.3154X_{4,2,t}$
Bantaeng	$\hat{y}_{3,t} = 101.242 + 0.00217X_{1,3,t} - 0.0849X_{2,3,t} - 1.3154X_{4,3,t}$
Jeneponto	$\hat{y}_{4,t} = 93.063 + 0.00217X_{1,4,t} - 0.0849X_{2,4,t} - 1.3154X_{4,4,t}$
Takalar	$\hat{y}_{5,t} = 98.293 + 0.00217X_{1,5,t} - 0.0849X_{2,5,t} - 1.3154X_{4,5,t}$
Gowa	$\hat{y}_{6,t} = 104.086 + 0.00217X_{1,6,t} - 0.0849X_{2,6,t} - 1.3154X_{4,6,t}$
Sinjai	$\hat{y}_{7,t} = 98.350 + 0.00217X_{1,7,t} - 0.0849X_{2,7,t} - 1.3154X_{4,7,t}$
Maros	$\hat{y}_{8,t} = 105.499 + 0.00217X_{1,8,t} - 0.0849X_{2,8,t} - 1.3154X_{4,8,t}$
Pangkep	$\hat{y}_{9,t} = 103.382 + 0.00217X_{1,9,t} - 0.0849X_{2,9,t} - 1.3154X_{4,9,t}$
Barru	$\hat{y}_{10,t} = 106.854 + 0.00217X_{1,10,t} - 0.0849X_{2,10,t} - 1.3154X_{4,10,t}$
Bone	$\hat{y}_{11,t} = 96.354 + 0.00217X_{1,11,t} - 0.0849X_{2,11,t} - 1.3154X_{4,11,t}$
Soppeng	$\hat{y}_{12,t} = 102.223 + 0.00217X_{1,12,t} - 0.0849X_{2,12,t} - 1.3154X_{4,12,t}$
Wajo	$\hat{y}_{13,t} = 101.931 + 0.00217X_{1,13,t} - 0.0849X_{2,13,t} - 1.3154X_{4,13,t}$
Sidrap	$\hat{y}_{14,t} = 105.565 + 0.00217X_{1,14,t} - 0.0849X_{2,14,t} - 1.3154X_{4,14,t}$
Pinrang	$\hat{y}_{15,t} = 104.327 + 0.00217X_{1,15,t} - 0.0849X_{2,15,t} - 1.3154X_{4,15,t}$
Enrekang	$\hat{y}_{16,t} = 105.785 + 0.00217X_{1,16,t} - 0.0849X_{2,16,t} - 1.3154X_{4,16,t}$
	$\hat{y}_{17,t} = 105.477 + 0.00217X_{1,17,t} - 0.0849X_{2,17,t} - 1.3154X_{4,17,t}$
	$\hat{y}_{18,t} = 99.983 + 0.00217X_{1,18,t} - 0.0849X_{2,18,t} - 1.3154X_{4,18,t}$
	$\hat{y}_{19,t} = 102.810 + 0.00217X_{1,19,t} - 0.0849X_{2,19,t} - 1.3154X_{4,19,t}$

Lampiran 8. Hasil Estimasi Model Terbaik (Lanjutan)

Kabupaten/Kota	Model
Luwu Timur	$\hat{y}_{20,t} = 108.559 + 0.00217X_{1,20,t} - 0.0849X_{2,20,t} - 1.3154X_{4,20,t}$
Toraja Utara	$\hat{y}_{21,t} = 101.021 + 0.00217X_{1,21,t} - 0.0849X_{2,21,t} - 1.3154X_{4,21,t}$
Makassar	$\hat{y}_{22,t} = 113.169 + 0.00217X_{1,22,t} - 0.0849X_{2,22,t} - 1.3154X_{4,22,t}$
Parepare	$\hat{y}_{23,t} = 114.009 + 0.00217X_{1,23,t} - 0.0849X_{2,23,t} - 1.3154X_{4,23,t}$
Palopo	$\hat{y}_{24,t} = 119.988 + 0.00217X_{1,24,t} - 0.0849X_{2,24,t} - 1.3154X_{4,24,t}$