

DAFTAR PUSTAKA

- Bappenas. (2017). *Indonesia Berusaha Mengurangi Angka Kemiskinan*. Badan Perencanaan Pembangunan Nasional. <https://sdgs.bappenas.go.id/indonesia-berusaha-mengurangi-angka-kemiskinan/>
- BPS. (2011). *Ensiklopedia Indikator Ekonomi dan Sosial*. Badan Pusat Statistik Jakarta-Indonesia.
- BPS. (2023). *Persentase Penduduk Miskin (P0) Menurut Provinsi dan Daerah*. Badan Pusat Statistik Republik Indonesia.
- Budiantara, I. N. dan Jerry, D. T. P. (2010). *Mathematics XV National Conf*. Manado: Universitas Manado.
- Budiantara, I.N. (2009). *Spline dalam Regresi Nonparametrik dan Semiparametrik: Sebuah Pemodelan Statistika Masa Kini dan Masa Mendatang*, *Jurnal Sains Dan Seni Pomits*, Vol. 3, No.1.
- Chamidah, N., Kurniawan, K., Zaman, B., dan Muniroh, L. (2018). *Least Square-Spline Estimator in Multi-Response Semiparametric Regression Model for Estimating Median Growth Charts of Children in East Java, Indonesia*. *Far East Journal of Mathematical Sciences*. 107(2),295-307.
- D. peter, H. Patrick., L.K. Yee and Z.Scott, (2013) *Analysis of Longitudinal data*, Second Edition. Oxford: Oxford University Press.
- Dani, A. T. R., & Adrianingsih, N. Y. (2021). *Pemodelan Regresi Nonparametrik dengan Estimator Spline Truncated vs Deret Fourier*. *Jambura Journal of Mathematics*. 3(1), 26-36.
- Dani, A. T. R., & Ni'matuzzahroh, L. (2021). *Pemodelan Persentase Penduduk Miskin Kabupaten/Kota di Provinsi Jawa Barat dengan Pendekatan Regresi Nonparametrik Spline Truncated*. *J Statistika: Jurnal Ilmiah Teori Dan Aplikasi Statistika*, 14(1), 24-29.
- Eubank, R. L. (1988). *Spline Smoothing and Nonparametric Regression*. New York: Marcel Dekker. inc.
- ank, R.L. (1999) , *Nonparametric Regression and Spline Smoothing Second Edition*, Marcel Dekker, New York.



- Hadijah. (2022). *Estimasi Interval Kepercayaan Parameter Regresi dalam Model Penalized Kuantil Spline Pada Pasien Demam Berdarah Dengue*. Universitas Hasanuddin.
- Hardle, W. (1994). *Applied Nonparametric Regression*. New York: Cambridge University Press.
- Husain, H., Budiantara, I. N., & Zain, I. (2021). Mixed estimator of Spline truncated, fourier series, and kernel in birespone semiparametric regression model. In *IOP Conference Series: Earth and Environmental Science*, 880(1).
- Khotijah, L. (2020). *Pemodelan regresi nonparametrik truncated Spline pada indeks pembangunan manusia di Jawa Timur*. (Doctoral dissertation, Universitas Islam Negeri Maulana Malik Ibrahim).
- Ma'unah, S. (2016). *Estimasi Skewness (Kemiringan) dengan menggunakan Metode Bootstrap dan Metode jackknife*. Universitas Negeri Semarang.
- Mariati, N. P. A. M., Sudiarsa, I. W., & Sanjiwani, N. M. S. (2022). Perbandingan Regresi Linier Berganda Dengan Spline Truncated (Studi Kasus: Kemiskinan Di Provinsi Papua). *Widyadari*, 23(2), 240-246.
- Marzuki, M., Sofyan, H., & Rusyana, A. (2010). Pendugaan Selang Kepercayaan Persentil Bootstrap Nonparametrik untuk Parameter Regresi. *Statistika*, 10(1).
- Pratama, M. H. (2022). Regresi Nonparametrik Multivariabel dengan Pendekatan *Spline* Truncated Pada Kasus Tuberculosis. *Statistika*, 22(1), 87-93.
- Pratiwi, L. P. S. (2020). Pemilihan titik knot optimal model *Spline* truncated dalam regresi nonparametrik multivariabel dengan GCV. *Jurnal Matematika*, 10(2), 78-90.
- Puspita, R. I., & Anisa, R. (2022). Pemodelan Pemodelan Angka Kematian Bayi di Jawa Barat Menggunakan Pendekatan Analisis Regresi *Spline* dan Kernel. *Xplore: Journal of Statistics*, 11(3), 203-214.
- alinalina, M., Martha, S., & Imro'ah, N. (2023). Pemodelan Regresi Nonparametrik *Birespon Spline* Pada Persentase Penduduk Miskin Dan



- Indeks Kedalaman Kemiskinan. *Bimaster: Buletin Ilmiah Matematika, Statistika dan Terapannya*, 12(1).
- Setiawan, R. N., (2017) . *Interval Konfidence untuk Parameter Model Regresi Nonparametrik Spline Truncated Multivariabel*. Institut Teknologi Sepuluh Nopember.
- Sudiarsa, I. W., Budiantara, I. N., & Purnami, S. W., (2015). Combined Estimator Fourier Series and *Spline Truncated* in Multivariable Nonparametric Regression. *Applied Mathematical Science*. 9, 4997-5010.
- Susilowati, A., & Tsaniya, N. (2022). Pengaruh IPM, PDRB Perkapita, dan Tingkat Pengangguran Terhadap Persentase Penduduk Miskin Di Sulawesi Utara. *Journal of Statistics, Economics, Finance, Human Resources, and Information Technology*, 1(1).
- Wening, A. W., Budiantara, I. N., & Zain, I. (2020). Semiparametric regression curve estimation for longitudinal data using mixed *Spline truncated* and fourier series estimator. In *Journal of Physics: Conference Series*, 1538(1).
- Wu, Hulin dan Jin-Ting Zhang. (2006). *Nonparametric Regression Methods for Longitudinal Data Analysis*. New York: John Wiley and Sons, Inc.
- Yani, N. W. M. N., Srinadi, I. G. A. M., & Sumarjaya, I. W. (2017). Aplikasi Model Regresi Semipar-ametrik *Spline Truncated*. *Jurnal Matematika*, 6(1), 65-73.
- Yulianto, T., Kuzairi, K., Azizah, N., Mardianto, M. F. F., Yuditira, I., Faisol, F., & Amalia, R. (2023). The Parametric And Nonparametric Estimator In Semiparametric Regression For Longitudinal Data With Spline Approach. *Jurnal Ilmiah Kursor*, 11(4), 187-194.



LAMPIRAN



**Lampiran 1. Data Persentase Penduduk Miskin di Provinsi Papua dan
Faktor yang memengaruhinya**

Kabupaten/Kota	Tahun	y	z_1	x_1	x_2
Merauke	2014	10.2	66.49	8.23	9882
Merauke	2015	11.1	66.5	8.24	9953
Merauke	2016	11.08	66.53	8.26	10016
Merauke	2017	10.81	66.56	8.27	10277
Merauke	2018	10.54	66.71	8.49	10430
Merauke	2019	10.35	66.93	8.56	10498
Merauke	2020	10.03	67	8.72	10097
Merauke	2021	10.16	67.07	8.73	10201
Jayawijaya	2014	39.6	57.79	4.39	6989
Jayawijaya	2015	39.48	58.29	4.59	7068
Jayawijaya	2016	39.66	58.48	4.74	7282
Jayawijaya	2017	38.62	58.67	4.99	7524
Jayawijaya	2018	38.66	58.99	5.17	7637
Jayawijaya	2019	38.33	59.39	5.3	7835
Jayawijaya	2020	37.22	59.64	5.51	7441
Jayawijaya	2021	37.09	59.9	5.6	7545
Jayapura	2014	14.18	66.02	9.41	9597
Jayapura	2015	14.69	66.32	9.48	9622
Jayapura	2016	13.49	66.4	9.53	9653
Jayapura	2017	13.01	66.47	9.54	10055
Jayapura	2018	13.44	66.66	9.6	10160
Jayapura	2019	13.13	66.93	9.79	10375
Jayapura	2020	12.44	67.05	10.04	9898
Jayapura	2021	12.13	67.16	10.05	9989
Nabire	2014	23.92	67.24	9.45	8652
Nabire	2015	24.37	67.44	9.47	8725
Nabire	2016	26.03	67.5	9.48	8779
Nabire	2017	25.38	67.55	9.49	8983
Nabire	2018	25.17	67.72	9.53	9143
Nabire	2019	24.81	67.97	9.7	9195
Nabire	2020	24.15	68.06	10	8840
Nabire	2021	23.83	68.15	10.01	8856
Kepulauan Yapen	2014	26.39	68.63	8.68	7241
Kepulauan Yapen	2015	27.7	68.67	8.8	7320
Kepulauan Yapen	2016	27.54	68.69	8.81	7414
Kepulauan Yapen	2017	26.82	68.71	8.82	7605
Kepulauan Yapen	2018	27.17	68.85	9.07	7739
Kepulauan Yapen	2019	27.13	69.06	9.19	7785
Kepulauan Yapen	2020	26.3	69.12	9.46	7484



Lampiran 1. Data Persentase Penduduk Miskin di Provinsi Papua dan Faktor yang memengaruhinya (lanjutan)

Kepulauan Yapen	2021	26.09	69.17	9.47	7491
Biak Numfor	2014	27.44	67.85	9.61	9553
Biak Numfor	2015	27.23	67.86	9.83	9603
Biak Numfor	2016	26.99	67.86	9.84	9647
Biak Numfor	2017	25.44	67.87	9.85	9812
Biak Numfor	2018	25.72	68	10	9969
Biak Numfor	2019	25.5	68.2	10.22	10211
Biak Numfor	2020	24.57	68.25	10.33	9705
Biak Numfor	2021	24.45	68.29	10.34	9607
Paniai	2014	36.07	65.15	3.74	6086
Paniai	2015	37.43	65.45	3.76	6161
Paniai	2016	39.13	65.58	3.77	6191
Paniai	2017	37.4	65.7	3.94	6355
Paniai	2018	37.35	65.94	4.2	6535
Paniai	2019	37.16	66.27	4.38	6767
Paniai	2020	36.71	66.44	4.57	6361
Paniai	2021	36.59	66.62	4.77	6377
Puncak Jaya	2014	36.15	63.77	3.04	4938
Puncak Jaya	2015	37.45	64.17	3.19	4979
Puncak Jaya	2016	37.31	64.29	3.38	5089
Puncak Jaya	2017	36.01	64.41	3.5	5341
Puncak Jaya	2018	36.27	64.65	3.51	5459
Puncak Jaya	2019	35.71	64.98	3.61	5523
Puncak Jaya	2020	34.74	65.15	3.62	5282
Puncak Jaya	2021	36	65.33	3.74	5289
Mimika	2014	16.11	71.87	9.3	10873
Mimika	2015	16.2	71.89	9.38	10952
Mimika	2016	14.72	71.9	9.53	11169
Mimika	2017	14.89	71.93	9.54	11591
Mimika	2018	14.55	72.06	9.76	11700
Mimika	2019	14.54	72.27	9.91	12035
Mimika	2020	14.26	72.32	10.17	11431
Mimika	2021	14.17	72.36	10.18	11400
Boyen Digoel	2014	18.87	57.64	7.5	7646
Boven Digoel	2015	19.5	58.24	7.72	7717
Boven Digoel	2016	20.82	58.51	7.82	7770
Boven Digoel	2017	19.9	58.77	8.08	8048
Boven Digoel	2018	20.35	59.16	8.32	8211
Boven Digoel	2019	19.66	59.64	8.55	8300
Boven Digoel	2020	19.41	59.97	8.78	7947



Lampiran 1. Data Persentase Penduduk Miskin di Provinsi Papua dan Faktor yang memengaruhinya (lanjutan)

Kabupaten/Kota	Tahun	y	z_1	x_1	x_2
Boven Digoel	2021	19.9	60.32	8.79	7864
Mappi	2014	25.95	63.52	5.96	5709
Mappi	2015	26.96	64.02	5.97	5780
Mappi	2016	26.64	64.16	5.98	5951
Mappi	2017	25.75	64.3	6.1	6143
Mappi	2018	25.64	64.56	6.29	6268
Mappi	2019	25.5	64.91	6.3	6513
Mappi	2020	25.04	65.11	6.31	6353
Mappi	2021	26.05	65.31	6.51	6327
Asmat	2014	29.1	55	4.34	5485
Asmat	2015	28.48	55.5	4.38	5533
Asmat	2016	27.79	55.9	4.48	5601
Asmat	2017	27.16	56.32	4.71	5771
Asmat	2018	27.41	56.88	4.74	5882
Asmat	2019	26.6	57.53	4.82	6066
Asmat	2020	25.49	58.05	4.94	5733
Asmat	2021	24.83	58.59	5.08	5736
Yahukimo	2014	39.02	64.56	3.97	4081
Yahukimo	2015	41.26	65.06	3.98	4109
Yahukimo	2016	40.62	65.19	3.99	4248
Yahukimo	2017	39.33	65.32	4	4554
Yahukimo	2018	39.25	65.52	4.01	4737
Yahukimo	2019	38.82	65.8	4.02	5030
Yahukimo	2020	37.34	65.93	4.26	4875
Yahukimo	2021	37.64	66.05	4.27	4895
Pegunungan Bintang	2014	32.78	63.58	1.97	5095
Pegunungan Bintang	2015	31.55	63.78	2.06	5176
Pegunungan Bintang	2016	31.52	63.84	2.19	5289
Pegunungan Bintang	2017	30.6	63.9	2.32	5506
Pegunungan Bintang	2018	30.75	64.08	2.49	5578
Pegunungan Bintang	2019	30.51	64.34	2.61	5633
Pegunungan Bintang	2020	30.15	64.44	2.81	5409
Pegunungan Bintang	2021	30.46	64.54	3.04	5429
Tolikara	2014	33.27	64.66	3.04	4468
Tolikara	2015	34	64.86	3.06	4518
Tolikara	2016	33.63	64.98	3.21	4711
Tolikara	2017	32.73	65.1	3.5	4827
Tolikara	2018	33.14	65.3	3.62	4946
Tolikara	2019	32.9	65.58	3.63	5142



Lampiran 1. Data Persentase Penduduk Miskin di Provinsi Papua dan Faktor yang memengaruhinya (lanjutan)

Kabupaten/Kota	Tahun	y	z_1	x_1	x_2
Tolikara	2021	32.6	65.83	3.65	4841
Sarmi	2014	13.32	65.49	7.89	6358
Sarmi	2015	13.85	65.69	8.07	6379
Sarmi	2016	13.74	65.76	8.08	6417
Sarmi	2017	13.75	65.82	8.34	6723
Sarmi	2018	14.51	66	8.52	6814
Sarmi	2019	14.41	66.26	8.53	6860
Sarmi	2020	13.87	66.36	8.82	6600
Sarmi	2021	13.84	66.46	8.83	6617
Keerom	2014	19.12	65.99	6.57	8514
Keerom	2015	15.83	66.09	6.85	8609
Keerom	2016	17.15	66.13	7.24	8671
Keerom	2017	16.69	66.18	7.57	8824
Keerom	2018	16.9	66.35	7.83	8918
Keerom	2019	16.83	66.6	8	9136
Keerom	2020	16.32	66.69	8.01	8910
Keerom	2021	16	66.78	8.02	8926
Waropen	2014	32.63	65.72	8.53	5989
Waropen	2015	31.41	65.73	8.55	6070
Waropen	2016	31.25	65.77	8.66	6270
Waropen	2017	30.82	65.82	8.67	6810
Waropen	2018	30.53	65.99	8.87	6978
Waropen	2019	30.95	66.24	9.18	7018
Waropen	2020	29.54	66.33	9.2	6732
Waropen	2021	29.85	66.42	9.21	6788
Supiori	2014	36.65	65.15	8.11	5098
Supiori	2015	39.25	65.25	8.12	5180
Supiori	2016	37.99	65.29	8.13	5379
Supiori	2017	37.4	65.33	8.14	5655
Supiori	2018	39.22	65.53	8.39	5769
Supiori	2019	38.79	65.81	8.6	5820
Supiori	2020	36.91	65.94	8.81	5677
Supiori	2021	37.91	66.06	8.87	5708
Mamberamo Raya	2014	29.86	56.37	4.44	4303
Mamberamo Raya	2015	29.71	56.57	4.61	4324
Mamberamo Raya	2016	29.52	56.74	4.89	4387
Mamberamo Raya	2017	29.88	56.9	5.23	4596
Mamberamo Raya	2018	30.1	57.18	5.46	4755
Mamberamo Raya	2019	29.13	57.55	5.65	4807



Lampiran 1. Data Persentase Penduduk Miskin di Provinsi Papua dan Faktor yang memengaruhinya (lanjutan)

Kabupaten/Kota	Tahun	y	z_1	x_1	x_2
Mamberamo Raya	2021	28.78	58	5.87	4603
Nduga	2014	35.89	53.6	0.63	3607
Nduga	2015	35.89	53.6	0.64	3625
Nduga	2016	38.47	54.5	0.7	3725
Nduga	2017	37.29	54.6	0.71	3972
Nduga	2018	38.13	54.82	0.85	4131
Nduga	2019	38.24	55.12	0.97	4181
Nduga	2020	36.72	55.27	1.13	3975
Nduga	2021	37.18	55.43	1.42	3976
Lanny Jaya	2014	39.26	64.85	2.6	3901
Lanny Jaya	2015	41.97	64.86	2.75	3965
Lanny Jaya	2016	41.68	65.63	2.92	4106
Lanny Jaya	2017	39.6	65.65	3.17	4356
Lanny Jaya	2018	40.06	65.79	3.18	4517
Lanny Jaya	2019	39.52	66	3.19	4569
Lanny Jaya	2020	38.13	66.06	3.2	4350
Lanny Jaya	2021	38.73	66.11	3.43	4393
Mamberamo Tengah	2014	35.47	62.62	2.4	3985
Mamberamo Tengah	2015	35.54	62.72	2.49	4051
Mamberamo Tengah	2016	38.36	62.82	2.57	4219
Mamberamo Tengah	2017	36.38	62.92	2.67	4510
Mamberamo Tengah	2018	37.02	63.14	2.78	4609
Mamberamo Tengah	2019	36.93	63.44	2.9	4671
Mamberamo Tengah	2020	36.41	63.59	3.15	4462
Mamberamo Tengah	2021	36.76	63.75	3.33	4487
Yalimo	2014	35.65	64.85	2.07	4298
Yalimo	2015	35.88	64.86	2.08	4321
Yalimo	2016	35.8	64.9	2.19	4435
Yalimo	2017	34.97	64.94	2.25	4702
Yalimo	2018	35.45	65.1	2.44	4799
Yalimo	2019	34.52	65.34	2.58	4860
Yalimo	2020	32.82	65.42	2.79	4647
Yalimo	2021	33.25	65.49	3.01	4664
Puncak	2014	37.85	64.98	1.43	5010
Puncak	2015	38.74	65.08	1.61	5118
Puncak	2016	38.58	65.1	1.78	5181
Puncak	2017	37.46	65.13	1.94	5413
Puncak	2018	38.15	65.33	1.95	5506
Puncak	2019	38.24	65.61	1.96	5702



**Lampiran 1. Data Persentase Penduduk Miskin di Provinsi Papua dan
Faktor yang memengaruhinya (lanjutan)**

Kabupaten/Kota	Tahun	y	z_1	x_1	x_2
Puncak	2021	36.26	65.86	2.16	5,412
Dogiyai	2014	29.1	64.36	4.87	5061
Dogiyai	2015	29.1	64.86	4.88	5120
Dogiyai	2016	31.21	64.99	4.89	5190
Dogiyai	2017	30.36	65.12	4.9	5375
Dogiyai	2018	30.48	65.32	4.91	5522
Dogiyai	2019	31.12	65.6	4.92	5709
Dogiyai	2020	28.62	65.73	4.93	5373
Dogiyai	2021	28.81	65.85	4.94	5415
Intan Jaya	2014	38.16	64.88	2.95	4995
Intan Jaya	2015	41.34	64.98	2.48	5015
Intan Jaya	2016	43.73	65.04	2.49	5038
Intan Jaya	2017	42.23	65.09	2.5	5293
Intan Jaya	2018	42.71	65.26	2.51	5440
Intan Jaya	2019	42.92	65.51	2.64	5593
Intan Jaya	2020	40.71	65.6	2.84	5283
Intan Jaya	2021	41.66	65.69	3.09	5328
Deiyai	2014	44.49	64.27	11.09	4293
Deiyai	2015	45.74	64.47	2.96	4320
Deiyai	2016	45.11	64.55	2.97	4383
Deiyai	2017	43.63	64.63	2.98	4597
Deiyai	2018	43.49	64.83	2.99	4761
Deiyai	2019	43.65	65.11	3	4958
Deiyai	2020	41.76	65.24	3.01	4632
Deiyai	2021	40.59	65.36	3.25	4673
Kota Jayapura	2014	12.21	69.95	5.76	14172
Kota Jayapura	2015	12.22	69.97	11.11	14249
Kota Jayapura	2016	12.06	69.99	11.14	14319
Kota Jayapura	2017	11.46	70	11.15	14781
Kota Jayapura	2018	11.37	70.15	11.3	14922
Kota Jayapura	2019	11.49	70.38	11.55	15176
Kota Jayapura	2020	11.16	70.45	11.56	14763
Kota Jayapura	2021	11.39	70.52	11.57	14937



Lampiran 2. Nilai GCV dengan dua titik knot

Iterasi	Z_1		GCV
	Knot 1	Knot 2	
1	53.6	53.983	89.457
2	53.6	54.366	86.413
3	53.6	54.749	86.414
4	53.6	55.131	86.403
5	53.6	55.514	92.841
6	53.6	55.897	86.952
7	53.6	56.280	86.233
8	53.6	56.663	87.431
9	53.6	57.046	86.353
10	53.6	57.429	85.512
11	53.6	57.811	85.042
12	53.6	58.194	84.465
13	53.6	58.577	83.520
14	53.6	58.960	82.361
15	53.6	59.343	81.132
16	53.6	59.726	79.701
17	53.6	60.109	78.494
18	53.6	60.491	76.278
19	53.6	60.874	74.460
20	53.6	61.257	72.888
21	53.6	61.640	71.464
22	53.6	62.023	70.136
23	53.6	62.406	69.166
24	53.6	62.789	68.256
25	53.6	63.171	67.267
⋮	⋮	⋮	⋮
1056	65.469	66.234	53.184
1057	65.469	66.617	52.662
⋮	⋮	⋮	⋮
1216	70.829	71.211	84.565
1217	70.829	71.594	84.565
1218	70.829	71.977	84.563
1219	70.829	72.360	83.867
1220	71.211	71.594	84.565
1221	71.211	71.977	84.562
1222	71.211	72.360	83.927
1223	71.594	71.977	84.567
1224	71.594	72.360	84.175
1225	71.977	72.360	85.356



Lampiran 3. Nilai GCV dengan tiga titik knot

Iterasi	Z_1			GCV
	Knot 1	Knot 2	Knot 3	
1	53.983	54.366	54.749	35.985
2	53.983	54.366	55.131	35.954
3	53.983	54.366	55.514	35.919
4	53.983	54.366	55.897	35.916
5	53.983	54.366	56.280	35.932
6	53.983	54.366	56.663	35.967
7	53.983	54.366	57.046	36.007
8	53.983	54.366	57.429	36.417
9	53.983	54.366	57.811	36.023
10	53.983	54.366	58.194	36.000
11	53.983	54.366	58.577	35.971
12	53.983	54.366	58.960	35.960
13	53.983	54.366	59.343	35.969
14	53.983	54.366	59.726	35.993
15	53.983	54.366	60.109	36.018
16	53.983	54.366	60.491	36.028
17	53.983	54.366	60.874	36.025
18	53.983	54.366	61.257	36.014
19	53.982	54.365	61.643	35.994
20	53.982	54.365	62.022	36.335
⋮	⋮	⋮	⋮	⋮
⋮	⋮	⋮	⋮	⋮
16521	65.468	66.617	70.062	31.146
16522	65.468	66.617	70.445	31.110
⋮	⋮	⋮	⋮	⋮
⋮	⋮	⋮	⋮	⋮
17287	70.063	71.594	71.977	35.630
17288	70.446	70.829	71.211	36.010
17289	70.446	70.829	71.594	36.010
17290	70.446	70.829	71.977	36.075
17291	70.446	71.211	71.594	36.010
17292	70.446	71.211	71.977	36.216
17293	70.446	71.594	71.977	36.298
17294	70.829	71.211	71.594	35.976
17295	70.829	71.211	71.977	36.286
	70.829	71.594	71.977	36.286



Lampiran 4. Estimasi parameter dan interval kepercayaan parameter untuk setiap lokasi

Parameter	Estimasi Parameter	Batas Bawah	Batas Atas
$\beta_{1.0}$	53.019	52.540	53.498
$\alpha_{1.1}$	-0.013	-31.986	31.959
$\gamma_{1.1}$	14.086	13.475	14.697
$\gamma_{1.2}$	-12.648	-12.763	-12.533
$\gamma_{1.3}$	-0.392	-0.392	-0.392
$\beta_{1.1}$	-5.302	-9.346	-1.258
$\beta_{1.2}$	-1.242	-6.116	3.632
$\beta_{2.0}$	-6.179	-6.658	-5.700
$\alpha_{2.1}$	0.951	-27.271	29.173
$\gamma_{2.1}$	-0.646	-0.646	-0.646
$\gamma_{2.2}$	-0.269	-0.269	-0.269
$\gamma_{2.3}$	0.356	0.356	0.356
$\beta_{2.1}$	-4.550	-6.971	-2.129
$\beta_{2.2}$	1.571	-1.985	5.126
$\beta_{3.0}$	-86.466	-86.945	-85.987
$\alpha_{3.1}$	2.946	-28.980	34.872
$\gamma_{3.1}$	-0.872	-1.455	-0.290
$\gamma_{3.2}$	3.624	3.495	3.753
$\gamma_{3.3}$	-0.185	-0.185	-0.185
$\beta_{3.1}$	-8.550	-13.190	-3.910
$\beta_{3.2}$	-1.342	-6.097	3.412
$\beta_{4.0}$	6.659	6.180	7.138
$\alpha_{4.1}$	1.755	-30.687	34.197
$\gamma_{4.1}$	2.619	1.538	3.700
$\gamma_{4.2}$	1.770	1.229	2.311
$\gamma_{4.3}$	-0.609	-0.609	-0.609
$\beta_{4.1}$	-9.210	-13.831	-4.589
$\beta_{4.2}$	-2.317	-6.581	1.947
$\beta_{5.0}$	450.731	450.252	451.210
$\alpha_{5.1}$	-6.539	-39.537	26.458
$\gamma_{5.1}$	1.934	0.305	3.564
$\gamma_{5.2}$	1.864	0.783	2.944
$\gamma_{5.3}$	0.086	0.086	0.086
$\beta_{5.1}$	0.533	-3.800	4.866
$\beta_{5.2}$	1.431	-2.169	5.030
$\beta_{6.0}$	82.929	82.450	83.408
$\alpha_{6.1}$	-0.212	-32.806	32.383
$\gamma_{6.1}$	-0.461	-1.687	0.766
$\gamma_{6.2}$	1.205	0.526	1.883



Lampiran 4. Estimasi parameter dan interval kepercayaan parameter untuk setiap lokasi (lanjutan)

$\gamma_{6.3}$	0.158	0.158	0.158
$\beta_{6.1}$	-4.243	-9.038	0.551
$\beta_{6.2}$	-0.074	-4.753	4.606
$\beta_{7.0}$	-357.637	-358.116	-357.158
$\alpha_{7.1}$	6.653	-24.922	38.228
$\gamma_{7.1}$	0.749	0.446	1.052
$\gamma_{7.2}$	197.030	197.030	197.031
$\gamma_{7.3}$	-0.156	-0.156	-0.156
$\beta_{7.1}$	-10.294	-12.286	-8.301
$\beta_{7.2}$	-0.207	-3.253	2.839
$\beta_{8.0}$	163.046	162.567	163.525
$\alpha_{8.1}$	-2.005	-32.957	28.948
$\gamma_{8.1}$	0.099	0.099	0.099
$\gamma_{8.2}$	0.014	0.014	0.014
$\gamma_{8.3}$	0.164	0.164	0.164
$\beta_{8.1}$	3.836	2.180	5.492
$\beta_{8.2}$	-2.019	-4.531	0.492
$\beta_{9.0}$	6.322	5.843	6.801
$\alpha_{9.1}$	0.566	-33.971	35.102
$\gamma_{9.1}$	1.792	-1.375	4.959
$\gamma_{9.2}$	1.906	-0.711	4.522
$\gamma_{9.3}$	1.493	0.707	2.279
$\beta_{9.1}$	-4.949	-9.610	-0.288
$\beta_{9.2}$	-0.772	-6.234	4.691
$\beta_{10.0}$	-142.925	-143.404	-142.446
$\alpha_{10.1}$	3.437	-24.852	31.726
$\gamma_{10.1}$	0.000	0.000	0.000
$\gamma_{10.2}$	0.000	0.000	0.000
$\gamma_{10.3}$	0.000	0.000	0.000
$\beta_{10.1}$	-6.674	-10.607	-2.741
$\beta_{10.2}$	1.827	-1.978	5.632
$\beta_{11.0}$	-15.095	-15.574	-14.616
$\alpha_{11.1}$	1.017	-29.885	31.918
$\gamma_{11.1}$	-0.293	-0.293	-0.293
$\gamma_{11.2}$	0.243	0.243	0.243
$\gamma_{11.3}$	0.358	0.358	0.358
$\beta_{11.1}$	-1.485	-4.447	1.476
$\beta_{11.2}$	-2.503	-5.443	0.438



Lampiran 4. Estimasi parameter dan interval kepercayaan parameter untuk setiap lokasi (lanjutan)

$\beta_{12.0}$	70.264	69.785	70.743
$\alpha_{12.1}$	-0.678	-27.864	26.507
$\gamma_{12.1}$	0.057	0.057	0.057
$\gamma_{12.2}$	-0.239	-0.239	-0.239
$\gamma_{12.3}$	0.030	0.030	0.030
$\beta_{12.1}$	-2.739	-4.988	-0.490
$\beta_{12.2}$	1.426	-1.319	4.171
$\beta_{13.0}$	-192.257	-192.736	-191.778
$\alpha_{13.1}$	4.781	-26.571	36.134
$\gamma_{13.1}$	0.758	0.620	0.896
$\gamma_{13.2}$	-1.053	-1.053	-1.053
$\gamma_{13.3}$	-0.330	-0.330	-0.330
$\beta_{13.1}$	-13.293	-15.241	-11.346
$\beta_{13.2}$	-6.032	-8.226	-3.837
$\beta_{14.0}$	144.900	144.421	145.379
$\alpha_{14.1}$	-1.611	-32.308	29.086
$\gamma_{14.1}$	0.291	0.291	0.291
$\gamma_{14.2}$	-0.630	-0.630	-0.630
$\gamma_{14.3}$	-0.295	-0.295	-0.295
$\beta_{14.1}$	0.218	-0.962	1.397
$\beta_{14.2}$	-2.076	-4.660	0.507
$\beta_{15.0}$	-83.004	-83.483	-82.524
$\alpha_{15.1}$	1.928	-29.339	33.196
$\gamma_{15.1}$	-3.906	-3.982	-3.830
$\gamma_{15.2}$	-0.030	-0.030	-0.030
$\gamma_{15.3}$	0.863	0.863	0.863
$\beta_{15.1}$	-3.850	-5.493	-2.208
$\beta_{15.2}$	0.777	-1.518	3.072
$\beta_{16.0}$	2.509	2.030	2.988
$\alpha_{16.1}$	0.093	-31.523	31.709
$\gamma_{16.1}$	0.597	0.306	0.888
$\gamma_{16.2}$	-0.185	-0.185	-0.185
$\gamma_{16.3}$	0.057	0.057	0.057
$\beta_{16.1}$	-0.720	-4.741	3.301
$\beta_{16.2}$	1.676	-1.486	4.838
$\beta_{17.0}$	24.095	23.616	24.575
$\alpha_{17.1}$	-0.123	-31.917	31.671
$\gamma_{17.1}$	0.466	0.022	0.910
$\gamma_{17.2}$	-2.875	-2.906	-2.845
$\gamma_{17.3}$	0.154	0.154	0.154



Lampiran 4. Estimasi parameter dan interval kepercayaan parameter untuk setiap lokasi (lanjutan)

$\beta_{17.1}$	-1.442	-5.050	2.166
$\beta_{17.2}$	1.295	-2.930	5.519
$\beta_{18.0}$	3.500	3.021	3.979
$\alpha_{18.1}$	0.166	-31.461	31.793
$\gamma_{18.1}$	-4.843	-5.129	-4.556
$\gamma_{18.2}$	0.244	0.244	0.244
$\gamma_{18.3}$	-0.761	-0.761	-0.761
$\beta_{18.1}$	2.853	-1.394	7.100
$\beta_{18.2}$	-0.946	-4.106	2.213
$\beta_{19.0}$	-2010.676	-2011.155	-2010.197
$\alpha_{19.1}$	33.563	2.155	64.971
$\gamma_{19.1}$	-25.552	-25.693	-25.411
$\gamma_{19.2}$	0.000	0.000	0.000
$\gamma_{19.3}$	0.000	0.000	0.000
$\beta_{19.1}$	-12.390	-16.416	-8.364
$\beta_{19.2}$	-7.673	-10.329	-5.018
$\beta_{20.0}$	144.645	144.166	145.124
$\alpha_{20.1}$	-2.211	-29.589	25.168
$\gamma_{20.1}$	-0.051	-0.051	-0.051
$\gamma_{20.2}$	-0.307	-0.307	-0.307
$\gamma_{20.3}$	-0.102	-0.102	-0.102
$\beta_{20.1}$	1.433	-1.082	3.948
$\beta_{20.2}$	0.789	-1.390	2.969
$\beta_{21.0}$	-85.374	-85.853	-84.895
$\alpha_{21.1}$	2.330	-23.843	28.503
$\gamma_{21.1}$	-0.016	-0.016	-0.016
$\gamma_{21.2}$	-0.009	-0.009	-0.009
$\gamma_{21.3}$	-0.004	-0.004	-0.004
$\beta_{21.1}$	-4.268	-4.709	-3.828
$\beta_{21.2}$	-0.233	-2.104	1.638
$\beta_{22.0}$	-58.127	-58.607	-57.648
$\alpha_{22.1}$	1.532	-29.911	32.976
$\gamma_{22.1}$	-6.266	-6.452	-6.080
$\gamma_{22.2}$	0.004	0.004	0.004
$\gamma_{22.3}$	0.453	0.453	0.453
$\beta_{22.1}$	0.335	-1.134	1.804
$\beta_{22.2}$	-0.388	-2.437	1.661
$\beta_{23.0}$	115.386	114.907	115.865
$\alpha_{23.1}$	-1.450	-31.699	28.798
$\gamma_{23.1}$	0.006	0.006	0.006



Lampiran 4. Estimasi parameter dan interval kepercayaan parameter untuk setiap lokasi (lanjutan)

$\gamma_{23.3}$	-0.139	-0.139	-0.139
$\beta_{23.1}$	1.405	0.062	2.748
$\beta_{23.2}$	2.024	-0.075	4.124
$\beta_{24.0}$	-16.975	-17.454	-16.496
$\alpha_{24.1}$	0.866	-30.335	32.066
$\gamma_{24.1}$	62.681	62.678	62.685
$\gamma_{24.2}$	-0.260	-0.260	-0.260
$\gamma_{24.3}$	0.385	0.385	0.385
$\beta_{24.1}$	-5.447	-6.619	-4.274
$\beta_{24.2}$	1.841	-0.361	4.043
$\beta_{25.0}$	-279.784	-280.263	-279.305
$\alpha_{25.1}$	5.029	-26.288	36.345
$\gamma_{25.1}$	-11.919	-12.003	-11.835
$\gamma_{25.2}$	0.195	0.195	0.195
$\gamma_{25.3}$	0.994	0.994	0.994
$\beta_{25.1}$	-1.858	-2.763	-0.954
$\beta_{25.2}$	-1.197	-3.758	1.364
$\beta_{26.0}$	46.375	45.896	46.854
$\alpha_{26.1}$	1.355	-29.902	32.611
$\gamma_{26.1}$	-5.271	-5.352	-5.189
$\gamma_{26.2}$	-0.023	-0.023	-0.023
$\gamma_{26.3}$	-0.760	-0.760	-0.760
$\beta_{26.1}$	-24.542	-26.892	-22.192
$\beta_{26.2}$	2.993	0.430	5.556
$\beta_{27.0}$	137.108	136.629	137.587
$\alpha_{27.1}$	-1.333	-32.602	29.936
$\gamma_{27.1}$	19.853	19.809	19.897
$\gamma_{27.2}$	0.062	0.062	0.062
$\gamma_{27.3}$	-0.005	-0.005	-0.005
$\beta_{27.1}$	-8.797	-10.089	-7.505
$\beta_{27.2}$	2.712	0.196	5.229
$\beta_{28.0}$	370.730	370.250	371.209
$\alpha_{28.1}$	-5.135	-36.189	25.920
$\gamma_{28.1}$	0.080	0.080	0.080
$\gamma_{28.2}$	0.000	0.000	0.000
$\gamma_{28.3}$	0.000	0.000	0.000
$\beta_{28.1}$	-0.204	-2.521	2.112
$\beta_{28.2}$	1.400	-0.796	3.596
$\beta_{29.0}$	0.013	-0.466	0.492
$\alpha_{29.1}$	0.365	-33.261	33.992



Lampiran 4. Estimasi parameter dan interval kepercayaan parameter untuk setiap lokasi (lanjutan)

$\gamma_{29.1}$	-0.337	-2.595	1.922
$\gamma_{29.2}$	-0.664	-2.372	1.045
$\gamma_{29.3}$	1.943	1.931	1.956
$\beta_{29.1}$	-0.017	-5.193	5.160
$\beta_{29.2}$	-0.670	-7.698	6.359

