

DAFTAR PUSTAKA

- [1] S. Widowati, *Pemodelan Matematika: Analisis dan Aplikasinya*. Semarang: Undip Press, 2013.
- [2] M. Ndi, *Pemodelan Matematika Dinamika Populasi Dan Penyebaran Penyakit Teori, Aplikasi, Dan Numerik*. Deepublish, 2018.
- [3] K. T. Alligood, T. D. Sauer, and J. A. Yorke, *Chaos: An Introduction to Dynamical Systems*. New York: Springer, 1997.
- [4] Otoritas Jasa Keuangan, “Buku saku otoritas jasa keuangan,” Jakarta, 2015, diakses dari situs resmi OJK.
- [5] N. Sumarti, “Pemodelan matematika keuangan dan optimisasinya,” in *Orasi Ilmiah Guru Besar Institut Teknologi Bandung*. Bandung, Indonesia: ITB Press, Oktober 2024.
- [6] Pemerintah Republik Indonesia, “Undang-undang republik indonesia nomor 10 tahun 1998 tentang perubahan atas undang-undang nomor 7 tahun 1992 tentang perbankan,” Jakarta, 1998.
- [7] N. Sumarti and M. F. Ansori, *Model Matematika Perbankan*. Bandung, Indonesia: ITB Press, 2022.
- [8] A. Vincent and N. Sumarti, “Implementation of the banking dynamics model using a system of deterministic differential equations,” *Frontiers in Applied Mathematics and Statistics*, vol. 11, p. 1517447, 2025.
- [9] M. F. Ansori, N. Sumarti, K. Adji Sidarto, I. Gunadi, and F. H. Gümüş, “Mathematical model of bank balance sheet with a macroprudential instrument and its application to banking data,” *Mathematical Methods in the Applied Sciences*, vol. 48, no. 18, pp. 16 789–16 803, 2025.
- [10] V. N. Aula, “Pengaruh non performing financing (npf), kewajiban penyediaan modal minimum (kpmm) dan size terhadap cadangan kerugian penurunan nilai (ckpn) pada bank umum syariah (bus),” Ph.D. dissertation, Universitas Islam Negeri Maulana Malik Ibrahim, 2021.
- [11] M. F. Ansori, “Dynamic modeling and optimal control of bank balance sheets under capital adequacy constraints,” *An International Journal of Optimization and Control: Theories & Applications*, p. 025250113, 2025.
- [12] M. F. Ansori, K. A. Sidarto, N. Sumarti, and I. Gunadi, “Dynamics of bank’s balance sheet: A system of deterministic and stochastic differential equations

approach,” *International Journal of Mathematics and Computer Science*, vol. 16, no. 3, pp. 871–884, 2021.

- [13] T. D. Warfield, J. J. Weygandt, and D. E. Kieso, *Intermediate Accounting: Principles and Analysis*, 2nd ed. Hoboken: John Wiley & Sons, 2007.
- [14] Bank Indonesia, “Peraturan Anggota Dewan Gubernur Nomor 24/8/PADG/2022 tentang Perubahan Keempat atas Peraturan Anggota Dewan Gubernur Nomor 20/10/PADG/2018 tentang Giro Wajib Minimum dalam Rupiah dan Valuta Asing bagi Bank Umum Konvensional, Bank Umum Syariah, dan Unit Usaha Syariah,” Jakarta, 2022, diakses dari situs resmi Bank Indonesia.
- [15] F. S. Mishkin, *The Economics of Money, Banking, and Financial Markets*, 12th ed. New York: Pearson, 2019.
- [16] Otoritas Jasa Keuangan, “Peraturan otoritas jasa keuangan nomor 11/pojk.03/2016 tentang kewajiban penyediaan modal minimum bank umum,” Jakarta, 2016, diakses dari situs resmi OJK.
- [17] W. E. Boyce, R. C. DiPrima, and D. B. Meade, *Elementary Differential Equations and Boundary Value Problems*, 12th ed. Hoboken: John Wiley & Sons, 2021.
- [18] R. K. Nagle, E. B. Saff, and A. D. Snider, *Fundamentals of Differential Equations*, 8th ed. Boston: Pearson, 2012.
- [19] L. Perko, *Differential Equations and Dynamical Systems*, 3rd ed. New York: Springer, 2001.
- [20] J. D. Murray, *Mathematical Biology I: An Introduction*, 3rd ed. New York: Springer, 2002.
- [21] A. Hurwitz, “On the conditions under which an equation has only roots with negative real parts,” in *Selected Papers on Mathematical Trends in Control Theory*, R. Bellman and R. Kalaba, Eds. New York: Dover Publications, 1964, pp. 273–284.
- [22] M. Braun, *Differential Equations and Their Applications: An Introduction to Applied Mathematics*, 4th ed. New York: Springer, 1993.
- [23] S. H. Strogatz, *Nonlinear Dynamics and Chaos: With Applications to Physics, Biology, Chemistry, and Engineering*, 2nd ed. Boulder: Westview Press, 2015.
- [24] J. Kennedy and R. Eberhart, “Particle swarm optimization,” in *Proceedings of ICNN’95 - International Conference on Neural Networks*, vol. 4. IEEE, 1995, pp. 1942–1948.

- [25] T. M. Shami, A. A. El-Saleh, M. Alswaitti, Q. Al-Tashi, P. Sumari, and L. Abualigah, "Particle swarm optimization: A comprehensive survey," *IEEE Access*, vol. 10, pp. 10 015–10 061, 2022.
- [26] Y. Shi and R. Eberhart, "A modified particle swarm optimizer," in *1998 IEEE International Conference on Evolutionary Computation Proceedings*. IEEE, 1998, pp. 69–73.
- [27] R. J. Hyndman and G. Athanasopoulos, *Forecasting: Principles and Practice*, 2nd ed. Melbourne: OTexts, 2018.
- [28] C. D. Lewis, *Industrial and Business Forecasting Methods: A Practical Guide to Exponential Smoothing and Production Planning*. London: Butterworths, 1982.
- [29] S. M. Ross, *Introduction to Probability Models*, 11th ed. San Diego: Academic Press, 2014.
- [30] B. Øksendal, *Stochastic Differential Equations: An Introduction with Applications*, 6th ed. Berlin: Springer, 2003.
- [31] D. J. Higham, "An algorithmic introduction to numerical simulation of stochastic differential equations," *SIAM Review*, vol. 43, no. 3, pp. 525–546, 2001.
- [32] A. C. Chiang, *Elements of Dynamic Optimization*. Long Grove, IL: Waveland Press, 2000.
- [33] L. S. Pontryagin, V. G. Boltyanskii, R. V. Gamkrelidze, and E. F. Mishchenko, *The Mathematical Theory of Optimal Processes*. New York: John Wiley & Sons, 1962, translated from the Russian by K. N. Trirogoff.
- [34] D. S. Naidu, *Optimal Control Systems*. Boca Raton: CRC Press, 2002.
- [35] Otoritas Jasa Keuangan, "Statistik perbankan indonesia: Juni 2025," Otoritas Jasa Keuangan, Jakarta, Laporan Statistik, June 2025. [Online]. Available: <https://www.ojk.go.id/>