

Supplementary File 4 – Full reference data of the included publications (chronological order)

Lp.	Abbrev.	Full reference	Year of publication	Country	Type of publication
1	Herr et al. 2011	Herr A, Schmitz H, Augurzky B. Profit efficiency and ownership of German hospitals. Health Econ. 2011 Jun;20(6):660-74. doi: 10.1002/hec.1622. PMID: 21456049.	2011	Germany	empirical study
2	Augurzky et al. 2012	Augurzky B, Engel D, Schmidt CM, Schwierz C. Ownership and financial sustainability of German acute care hospitals. Health Econ. 2012 Jul;21(7):811-24. doi: 10.1002/hec.1750.	2011	Germany	empirical study
3	Kocsis et al. 2011.	Kocsis V, Koning P, Mot E. General Hospitals in Financial Distress. Reconsidering Government Intervention. CPB Background Document. Den Haag: Netherlands Bureau for Economic Policy Analysis; 2011.	2011	The Netherlands	technical/policy report
4	Gaynor et al. 2011	Martin Gaynor, Mauro Laudicella, and Carol Propper. Can Governments Do It Better? Merger Mania and Hospital Outcomes in the English NHS. NBER Working Paper No. 17608. November 2011	2011	UK	empirical study
5	Babczuk & Kachniarz 2012	Babczuk Arkadiusz, Kachniarz Marian Sources of Soft Budget Constraints in the Structure of Autonomous Public Healthcare Centres. Argumenta Oeconomica, 2012, nr 1 (28), s. 181-214	2012	Poland	discussion/policy paper
6	Veronesi et al. 2013	Veronesi, G., Kirkpatrick, I., & Vallascas, F. (2013). Does clinical management improve efficiency? Evidence from the English National Health Service. Public Money & Management, 34(1), 35–42. https://doi.org/10.1080/09540962.2014.865932	2013	UK	empirical study
7	Büchner et al. 2014	Büchner VA, Schreyögg J, Schultz C. The impact of the board's strategy-setting role on board-management relations and hospital performance. Health Care Manage Rev. 2014 Oct-Dec;39(4):305-17. doi: 10.1097/HMR.0b013e31829fca10.	2014	Germany	empirical study
8	Bem et al. 2014	Bem Agnieszka, Ucieklak-Jeż Paulina, Prędkiewicz Paweł: Income per bed as a determinant of hospital's financial liquidity, Problems of Management in the 21st Century, vol. 9, no. 2, 2014, pp. 124-131	2014	Poland	empirical study
9	WB 2014	World Bank. Poland—Improving the Financial Sustainability of the Hospitals Sector—Towards a Systemic. Approach, April 2014.	2014	Poland	technical/policy report
10	Büchner et al. 2015	Büchner VA, Hinz V, Schreyögg J. Cooperation for a competitive position: The impact of hospital cooperation behavior on organizational performance. Health Care Manage Rev. 2015 Jul-Sep;40(3):214-24. doi: 10.1097/HMR.000000000000027.	2015	Germany	empirical study
11	Ellwood & Garcia-Lacalle 2015	Ellwood, S., Garcia-Lacalle, J. The Influence of Presence and Position of Women on the Boards of Directors: The Case of NHS Foundation Trusts. J Bus Ethics 130, 69–84 (2015). https://doi.org/10.1007/s10551-014-2206-8	2015	UK	empirical study

12	Kuntz et al. 2016	Kuntz L, Pulm J, Wittland M. Hospital ownership, decisions on supervisory board characteristics, and financial performance. Health Care Manage Rev. 2016 Apr-Jun;41(2):165-76.	2016	Germany	empirical study
13	Buchner et al. 2016	Büchner VA, Hinz V, Schreyögg J. Health systems: changes in hospital efficiency and profitability. Health Care Manag Sci. 2016 Jun;19(2):130-43. doi: 10.1007/s10729-014-9303-1.	2016	Germany	empirical study
14	Mauro et al. 2017	Mauro M, Maresso A, Guglielmo A. Health decentralization at a dead-end: towards new recovery plans for Italian hospitals. Health Policy. 2017 Jun;121(6):582-587. doi: 10.1016/j.healthpol.2017.04.003.	2017	Italy	discussion/policy paper
15	Moreira et al. 2017	Maria R. A. Moreira, Mădălina Gherman & Paulo S. A. Sousa (2017): Does innovation influence the performance of healthcare organizations?, Innovation	2017	Portugal	empirical study
16	Gainsbury 2017	Gainsbury S. The bottom line Understanding the NHS deficit and why it won't go away. Nuffield Trust 2017	2017	UK	technical/policy report
17	Thiel et al. 2018	Thiel A, Winter V, Büchner VA. Board characteristics, governance objectives, and hospital performance: An empirical analysis of German hospitals. Health Care Manage Rev. 2018 Oct/Dec;43(4):282-292. doi: 10.1097/HMR.0000000000000153.	2018	Germany	empirical study
18	Dombrádi et al. 2018	Dombrádi V, Margitai B, Dózsa C, Bárdos-Csenteri OK, Sándor J, Gáll T, Gódcény S. Investigation of the conditions affecting the joining of Hungarian hospitals to an accreditation programme: a cross-sectional study. BMJ Open. 2018 Feb 1;8(2):e019232. doi: 10.1136/bmjopen-2017-019232.	2018	Hungary	empirical study
19	Dalci & Ozyapici 2018	Dalci I, Ozyapici H. Working capital management policy in health care: The effect of leverage. Health Policy. 2018 Nov;122(11):1266-1272. doi: 10.1016/j.healthpol.2018.09.012.	2018	multicountry: Germany, United Kingdom, France, Spain, Poland, Romania, Portugal, Greece, Cyprus, Denmark, Sweden, Latvia	empirical study
20	WB 2018	Hospital deficits and arrears in Croatia and Poland : synthesis paper (English). Washington, D.C. : World Bank Group. 2018	2018	multicountry: Croatia and Poland	technical/policy report
21	Creixans & Arimany-Serrat 2018	Creixans, J., & Arimany-Serrat, N. (2018). Influential variables in the profitability of hospital companies. Intangible Capital, 14, 171-185.	2018	Spain	empirical study
22	Maślach et al. 2019	Maślach D, Markiewicz J, Warelis A, Krzyżak M. Importance of financial liquidity in hospital management. Przegl Epidemiol. 2019;73(3):369-381. doi: 10.32394/pe.73.30.	2019	Poland	empirical study

23	Bem et al. 2019	Bem A, Siedlecki R, Prędkiewicz P, Gazzola P, Ryszawska B, Ucieklak-Jeż P. Hospitals' Financial Health in Rural and Urban Areas in Poland: Does It Ensure Sustainability? Sustainability. 2019; 11(7):1932. https://doi.org/10.3390/su11071932	2019	Poland	empirical study
24	Krzeczewski et al. 2019	Krzeczewski B, Krzeczewska O, Pluskota A, Pastusiak R. Does the agglomeration effect occur in the hospital sector? The impact of agglomeration economies on the financial performance of hospitals-An evidence from Poland. Int J Health Plann Manage. 2019 Apr;34(2):553-571. doi: 10.1002/hpm.2716.	2019	Poland	empirical study
25	Duran et al. 2019	Duran A, Chanturidze T, Gheorghe A, Moreno A. Assessment of Public Hospital Governance in Romania: Lessons From 10 Case Studies. Int J Health Policy Manag. 2019 Apr 1;8(4):199-210. doi: 10.15171/ijhpm.2018.120.	2019	Romania	empirical study
26	Valls Martínez 2019	Valls Martínez, María del Carmen (2019). "Profitability, Corporate Social Responsibility and Gender in Private Healthcare in Spain". Revista Española de Investigaciones Sociológicas, 168: 111-128.	2019	Spain	empirical study
27	Aguiar-Díaz et al. 2019	Inmaculada Aguiar-Díaz, María Victoria Ruiz-Mallorquí & Beatriz González López-Valcárcel (2019) Insurance company as dominant shareholder and financial performance in for-profit hospitals, Spanish Journal of Finance and Accounting / Revista Española de Financiación y Contabilidad, 48:3, 306-340	2019	Spain	empirical study
28	Coates & Mofidi 2019	Coates RS, Mofidi R (2019) Financial sustainability of NHS Foundation Trusts in England five years after the enactment of the Health and Social Care Act of 2012. Br J Healthc Manage [online] 25(6):1-9. https://doi.org/10.12968/bjhc.2019.0017	2019	UK	empirical study
29	Nagendran et al. 2019	Nagendran M, Kiew G, Raine R, et al Financial performance of English NHS trusts and variation in clinical outcomes: a longitudinal observational study BMJ Open 2019;9:e021854. doi: 10.1136/bmjopen-2018-021854	2019	UK	empirical study
30	Kaiser et al. 2020	Kaiser F, Schmid A, Schlüchtermann J. Physician-leaders and hospital performance revisited. Soc Sci Med. 2020 Feb 5;249:112831. doi: 10.1016/j.socscimed.2020.112831. Epub ahead of print. PMID: 32087485.	2020	Germany	empirical study
31	Dubas-Jakóbczyk et al. 2020	Dubas-Jakóbczyk K, Kocot E, Kozieł A. Financial Performance of Public Hospitals: A Cross-Sectional Study among Polish Providers. International Journal of Environmental Research and Public Health. 2020; 17(7):2188. https://doi.org/10.3390/ijerph17072188	2020	Poland	empirical study
32	Sielska 2020	Sielska A. Stability of hospital rankings. Operations Research and Decisions 2020 30 4 95-112	2020	Poland	empirical study
33	Miszczyńska et al. 2020	Miszczyńska K. IMPROVING MANAGERIAL DECISIONS IN THE HEALTH CARE SECTOR. APPLICATION OF PROMETHEE II METHOD TO PUBLIC HOSPITALS. OPERATIONS RESEARCH AND DECISIONS 2020 No. 4 D	2020	Poland	empirical study

34	Dubas-Jakóbczyk & Kozieł 2020	Dubas-Jakóbczyk K, Kozieł A. Towards Financial Sustainability of the Hospital Sector in Poland—A Post Hoc Evaluation of Policy Approaches. Sustainability. 2020; 12(12):4801. https://doi.org/10.3390/su12124801	2020	Poland	discussion/policy paper
35	Jovanović 2020	Jovanović T. Challenges of the Slovenian Healthcare System Exposed in Hospitals' Recovery Plans. Stud Health Technol Inform. 2020 Jun 26;272:354-357.	2020	Slovenia	discussion/policy paper
36	Creixans-Tenas et al. 2020	Creixans-Tenas J, Gallardo-Vázquez D, Arimany-Serrat N. Social Responsibility, Communication and Financial Data of Hospitals: A Structural Modelling Approach in a Sustainability Scope. Sustainability. 2020; 12(12):4857. https://doi.org/10.3390/su12124857	2020	Spain	empirical study
37	Simovic et al. 2021	Hrvoje Simovic & Maja Mihelja Zaja & Marko Primorac, 2021. "Fiscal (un)sustainability of the Croatian healthcare system: additional impact of the COVID-19 crisis," Public Sector Economics, Institute of Public Finance, vol. 45(4), pages 495-515.	2021	Croatia	discussion/policy paper
38	Miszczyńska & Miszczyński 2021	Miszczyńska K, Miszczyński P. Debt, Ownership, and Size: The Case of Hospitals in Poland. Int J Environ Res Public Health. 2021 Apr 26;18(9):4596. doi: 10.3390/ijerph18094596.	2021	Poland	empirical study
39	Jaworzyńska 2021	Jaworzyńska M. Financial liquidity and profitability of polish self-governing public health care institutions for the years 2016-2018. Przegl Epidemiol. 2021;75(2):277-287. doi: 10.32394/pe.75.26.	2021	Poland	empirical study
40	Szewieczek 2021	Szewieczek, A. (2021). Financial situation and challenges for management of SME hospitals: Evidence from Poland. Serbian Journal of Management 16 (1) (2021) 231 - 250	2021	Poland	empirical study
41	Siedlecki et al. 2021	Rafał Siedlecki & Paweł Predkiewicz & Agnieszka Bem & Aleksandra Szpulak, 2021. "Working Capital Management in Hospitals: Evidence from Poland," European Research Studies Journal, European Research Studies Journal, vol. 0(Special 1), pages 836-850.	2021	Poland	empirical study
42	Matos et al. 2021	Matos R, Ferreira D, Pedro MI. Economic Analysis of Portuguese Public Hospitals Through the Construction of Quality, Efficiency, Access, and Financial Related Composite Indicators. Soc Indic Res. 2021;157(1):361-392. doi: 10.1007/s11205-021-02650-6.	2021	Portugal	empirical study
43	Ruiz-Mallorquí et al. 2021	Ruiz-Mallorquí MV, Aguiar-Díaz I, González-López Valcárcel B. Arrangements with the NHS for providing healthcare services: do they improve financial performance of private for-profit hospitals in Spain? Health Econ Rev. 2021 Mar 10;11(1):9. doi: 10.1186/s13561-021-00304-4.	2021	Spain	empirical study
44	Bubas 2022	Bubas Z. The Croatian Hospital System: Insight into a Case of Financial Unsustainability. Interdisciplinary Description of Complex Systems : INDECS, Vol. 20 No. 5, 2022.	2022	Croatia	empirical study
45	Wójtowicz et al. 2022	Wójtowicz, K., Wójtowicz, J., & Ujazda, D. (2022). The Impact of the COVID-19 Pandemic on the Financial Performance of Polish Public Hospitals Owned by Local and Regional Governments. Annales Universitatis Mariae Curie-Skłodowska, sectio H – Oeconomia, Vol. 56, No. 3.	2022	Poland	empirical study

46	Naruć 2022	Naruć W. The Impact of the COVID-19 Pandemic on the Financial and Asset Situation of Polish Infectious Diseases Hospitals. WSEAS TRANSACTIONS on BUSINESS and ECONOMICS. E-ISSN: 1109-9526 / 2224-2899, Volume 19, 2022, Art. #49	2022	Poland	empirical study
47	Maile et al. 2022	Maile, E.J., Mitra, M., Ovseiko, P. and Dopson, S. (2022), "Merger and post-merger integration at Oxford University Hospitals: mixed-methods evaluation and lessons learned", Journal of Health Organization and Management, Vol. 36 No. 4, pp. 503-520. https://doi.org/10.1108/JHOM-01-2021-0024	2022	UK	empirical study
48	Csolák et al. 2023	Csolák, E. H., Musinszki, Z., Lipták, K. (2023). Regional differences in the management and financial performance of hospitals in Hungary/ Regionalne różnice w zarządzaniu i wynikach finansowych szpitali na Węgrzech. Economic and Regional Studies, 16(2), 257-274. https://doi.org/10.2478/ers-2023-0017	2023	Hungary	empirical study
49	Perger & Hecker 2023	Perger, P., & Hecker, A. Measurement and predictors of the financial performance of public health enterprises in Italy. J Health Soc Sci 2023, 8, 4, 337-356. Doi: 10.19204/2023/MSRM7	2023	Italy	empirical study
50	Valls Martínez et al. 2023 - chapter	Valls Martínez, M., Soriano Román, R., Grasso, M.S., Martín-Cervantes, P.A. (2023). Corporate Social Responsibility and Profitability in Spanish Private Health Care During the COVID-19 Period. In: Idowu, S.O., Idowu, M.T., Idowu, A.O. (eds) Corporate Social Responsibility in the Health Sector. CSR, Sustainability, Ethics & Governance. Springer, Cham. https://doi.org/10.1007/978-3-031-23261-9_7	2023	Spain	empirical study
51	Valls Martínez et al. 2023	Valls Martínez MDC, Santos-Jaén JM, Valls-Úbeda RF, Soriano Román R. COVID-19 and Public Health Spending; Effects on the Economic Sustainability of the Spanish Private Healthcare System. Int J Environ Res Public Health. 2023 Jan 15;20(2):1585. doi: 10.3390/ijerph20021585.	2023	Spain	empirical study
52	Wackers et al. 2023	Wackers E, Dulmen SV, Berden B, Kremer J, Stadhouders N, Jeurissen P. Improving Performance in Complex Surroundings: A Mixed Methods Evaluation of Two Hospital Strategies in the Netherlands. Int J Health Policy Manag. 2023;12:7243. doi: 10.34172/ijhpm.2023.7243.	2023	The Netherlands	empirical study
53	Aly et al. 2023	Doaa Aly, Muath Abdelqader, Tamer K. Darwish & Katarzyna Scott (2023) The impact of healthcare board characteristics on NHS trust performance, Public Money & Management, 43:6, 594-601	2023	UK	empirical study
54	Seraina & Stavropoulou 2023	Seraina C. Anagnostopoulou & Charitini Stavropoulou (2021): Earnings management in public healthcare organizations: the case of the English NHS hospitals, Public Money & Management,	2023	UK	empirical study
55	Vogel et al. 2024	Vogel J, Hollenbach J, Haering A, Augurzky B, Geissler A. The association of hospital profitability and digital maturity - An explorative study using data from the German DigitalRadar project. Health Policy. 2024 Apr;142:105012. doi: 10.1016/j.healthpol.2024.105012.	2024	Germany	empirical study

56	Miszczyńska & Antczak 2024	Miszczyńska, K., & Antczak, E. (2024). Financial and non-financial determinants of the indebtedness of hospitals. The case of Poland. <i>Journal of Management Analytics</i> , 11(1), 26–44.	2024	Poland	empirical study
57	Achiro et al. 2024	Achiro, L.O., Tauringana, V. and Alta'any, M. (2024), "Corporate governance and financial performance: the case of English NHS hospitals", <i>International Journal of Public Sector Management</i> , Vol. 37 No. 7, pp. 896-912.	2024	UK	empirical study
58	Giese et al. 2024	Giese, A., Khanam, R., Nghiem, S. et al. Patient-reported experience is associated with higher future revenue and lower costs of hospitals. <i>Eur J Health Econ</i> 25, 1031–1039 (2024). https://doi.org/10.1007/s10198-023-01646-y	2024	Switzerland	empirical study
59	Karakolias & Polyzos 2024	Karakolias, S. and Polyzos, N. (2024), "Should women continue to be less preferred for managerial positions? Evidence from Greece based on public hospitals' financial performance", <i>Corporate Governance</i> , Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/CG-06-2024-0346	2024	Greece	empirical study
60	Terzoudis et al. 2024	Terzoudis, S., Kontodimopoulos, N. and Fanourgiakis, J. (2024), "Relationship between profitability and financial factors of hospitals after a period of austerity and health care reforms: evidence from Greece", <i>Journal of Health Organization and Management</i> , Vol. 38 No. 4, pp. 512-527. https://doi.org/10.1108/JHOM-05-2023-0147	2024	Greece	empirical study
61	Dąbrowski et al. 2025	Dąbrowski, D., Kukier, W., & Tybińska, A. (2025). Responsive and proactive market orientation and hospital financial performance: The mediating effect of service program innovativeness. <i>Journal of Entrepreneurship, Management and Innovation</i> , 21, 5-23. https://doi.org/10.7341/20252111	2025	Poland	empirical study
62	Neves et al. 2025	Neves, M.E. and Carolina, A. (2025), "Financial challenges in Portuguese hospitals: debt influences", <i>International Journal of Health Governance</i> , Vol. 30 No. 1, pp. 72-88. https://doi.org/10.1108/IJHG-05-2024-006	2025	Portugal	empirical study