Appendix related to: Mazur A., 2026. Sectoral development or vintage-year thermal conditions? An exploratory analysis of Polish wine-sector indicators, 2009/2010–2024/2025. Agron. Sci., online first, 1–15. https://doi.org/10.24326/ as.2026.5726

Appendix A. Input data

Table A1. Analytical dataset, 2009/2010–2024/2025 (KOWR, IMGW-PIB)

Wine year	Harvest year	Registered entities	Area (ha)	Production (m^3)	Output intensity ($dm^3\ ha^{-1}$)	Harvest ($Mg\ ha^{-1}$)	IMGW-PIB thermal class (ordinal value)	Thermal-class group	Development stage
2009/2010	2009	21	36.01	41.25	1146	1.661	normal (6)	N/C	early
2010/2011	2010	20	37.02	43.71	1181	1.921	extremely cool (1)	N/C	early
2011/2012	2011	26	51.28	42.85	836	1.334	normal (6)	N/C	early
2012/2013	2012	35	96.87	90.31	932	1.487	slightly cool (5)	N/C	early
2013/2014	2013	49	99.49	197.90	1989	3.170	normal (6)	N/C	early
2014/2015	2014	76	134.35	273.71	2037	3.363	very warm (9)	W	early
2015/2016	2015	103	194.24	513.54	2644	4.179	very warm (9)	W	trans.
2016/2017	2016	150	221.23	699.38	3161	4.925	warm (8)	W	trans.
2017/2018	2017	201	331.38	520.71	1571	2.423	slightly warm (7)	W	trans.
2018/2019	2018	230	394.84	1275.05	3229	4.748	anomalously warm (10)	A/E	trans.
2019/2020	2019	294	475.35	1436.13	3021	4.550	extremely warm (11)	A/E	trans.
2020/2021	2020	329	564.34	1422.79	2521	3.902	extremely warm (11)	A/E	new
2021/2022	2021	380	619.42	1844.18	2977	4.715	normal (6)	N/C	new
2022/2023	2022	530	811.64	2567.51	3163	4.776	very warm (9)	W	new
2023/2024	2023	626	951.02	2870.01	3018	4.679	extremely warm (11)	A/E	new
2024/2025	2024	703	1068.49	2142.36	2005	2.862	extremely warm (11)	A/E	new

Note. N/C = normal/cool; W = warm; A/E = anomalously/extremely warm; trans. = transition. “Registered entities” counts producers through 2021/2022 and growers from 2022/2023 (definitional break). Production is total wine production; output intensity is production divided by registered area; harvest is the grape harvest per hectare. The value in parentheses after the thermal class is the position of that class on the eleven-point IMGW-PIB ordinal scale (temp _ord). Source: KOWR, “The Wine Market in Figures”; IMGW-PIB thermal classification (assigned by harvest year)

Appendix B. Regression diagnostics

Table B1 reports the influence diagnostics for the control regression of output intensity on the centred time trend and the centred thermal class, together with the leave-one-out estimates of the thermal-class coefficient. Reference values are 0.375 for leverage (2k/n), 0.250 for Cook's distance (4/n), and 0.866 for the absolute value of DFFITS (2√(k/n)); values above these are shown in the text of Section 3.4. The final column gives the p-value of the thermal-class coefficient when the year in that row is omitted from the model.

Table B1. Influence diagnostics and leave-one-out sensitivity of the control regression

Wine year	Leverage	Studentized residual	Cook's distance	DFFITS	p, year omitted
2009/2010	0.262	−0.35	0.016	−0.21	0.332
2010/2011	0.492	0.35	0.044	0.35	0.349
2011/2012	0.156	−1.25	0.092	−0.54	0.291
2012/2013	0.138	−1.07	0.060	−0.43	0.415
2013/2014	0.101	0.44	0.008	0.15	0.345
2014/2015	0.171	−0.05	0.000	−0.02	0.374
2015/2016	0.127	0.82	0.033	0.31	0.471
2016/2017	0.065	1.77	0.063	0.47	0.344
2017/2018	0.085	−1.05	0.034	−0.32	0.426
2018/2019	0.109	1.21	0.058	0.42	0.475
2019/2020	0.158	0.52	0.018	0.23	0.455
2020/2021	0.146	−0.49	0.015	−0.20	0.314
2021/2022	0.391	1.01	0.219	0.81	0.190
2022/2023	0.180	0.57	0.025	0.27	0.312
2023/2024	0.189	−0.14	0.002	−0.07	0.356
2024/2025	0.228	−2.63	0.469	−1.43	0.273