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**Tree size inequality as a driver of growth dominance across climatic
gradients in managed silver fir forests in Europe**

Supplementary Material

Model specification

Gini_BA ~ FAI + TBA
GrowthD ~ Gini_BA + FAI
TBA ~ FAI

Model fit

AIC: -305.642

Tests of directed separation

Test Type	DF	Crit. Value	P-Value
Coefficient	109	0.9871	0.324

Global goodness-of-fit

Chi-squared = 0.974, df = 1, P = 0.324
Fisher's C = 2.257, df = 2, P = 0.324

Path coefficients

Response	Predictor	Estimate	Std. Error	DF	Crit. Value	P-Value	Std. Estimate
Gini_BA	FAI	-0.0381	0.0142	109	-2.6782	0.0074**	-0.3243
Gini_BA	TBA	-0.0375	0.0188	109	-2.0010	0.0454*	-0.2152
GrowthD	Gini_BA	0.3789	0.0404	109	9.3731	<0.0001***	0.6350
GrowthD	FAI	-0.0226	0.0081	109	-2.7734	0.0055**	-0.3214
TBA	FAI	-0.2722	0.1170	109	-2.3270	0.0200*	-0.4037

Significance codes: P < 0.001 '***'; P < 0.01 '**'; P < 0.05 '*'.

Individual R² values

Response	Marginal R ²	Conditional R ²
Gini_BA	0.09	0.11
GrowthD	0.57	0.60
TBA	0.17	0.27