Extreme Value Analysis – Tmax

Metric	Value
Distribution	Generalized Extreme Value (GEV)
GEV Type	Weibull-type (bounded upper tail)
Number of Blocks	80
Observations per Block	365
μ (location)	37.665
σ (scale)	2.441
ξ (shape)	-0.198

GEV Fit to Annual Block Maxima

Annual Block Maxima Time Series

POT Shape Parameter Stability

POT Scale Parameter Stability

POT Time Series with Selected Threshold

Rolling POT Shape Parameter
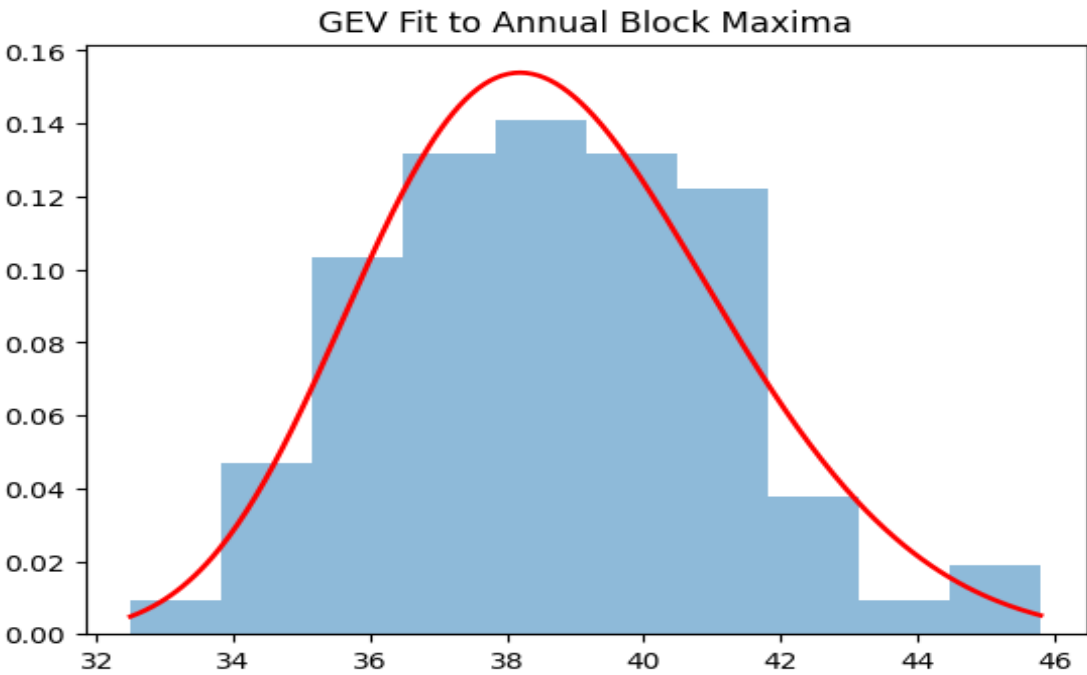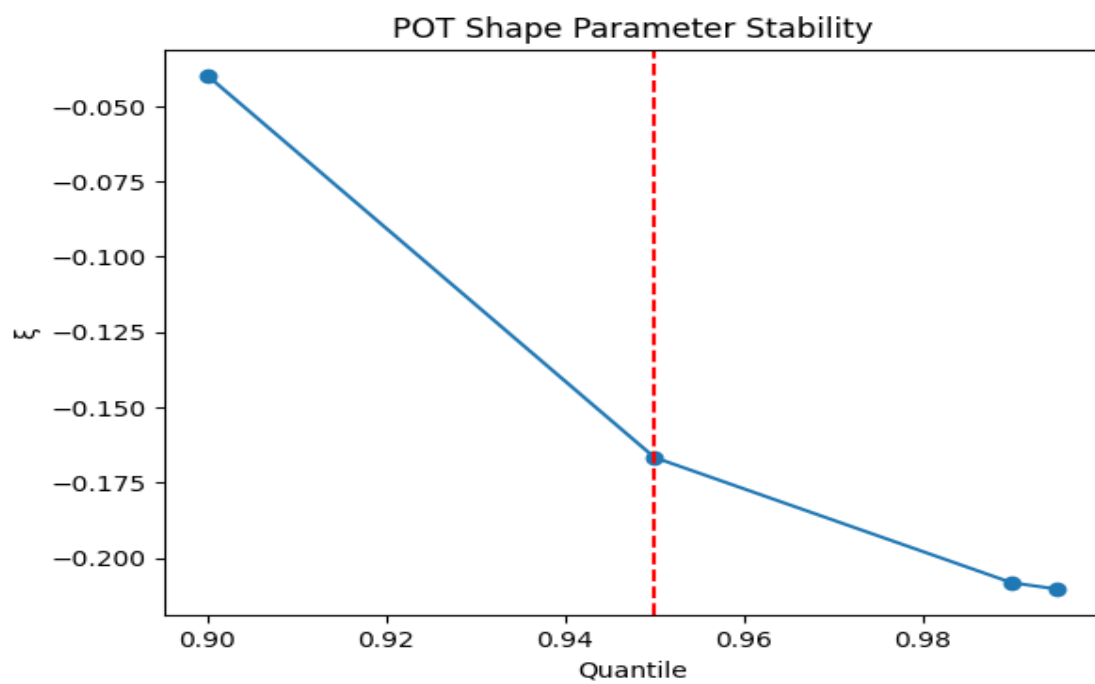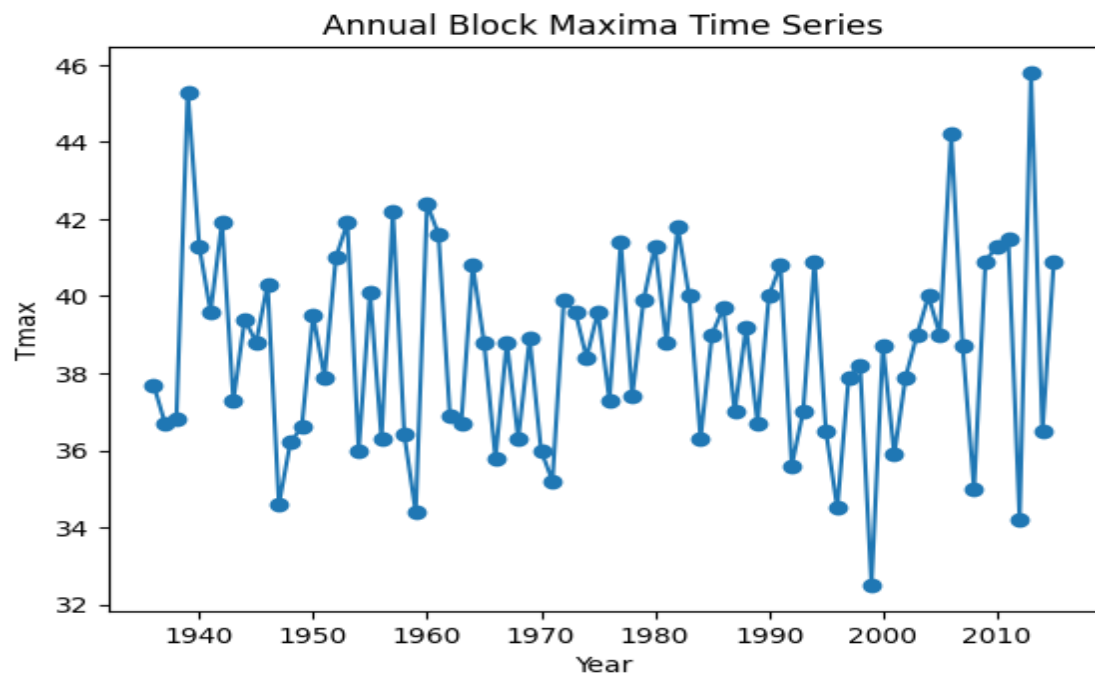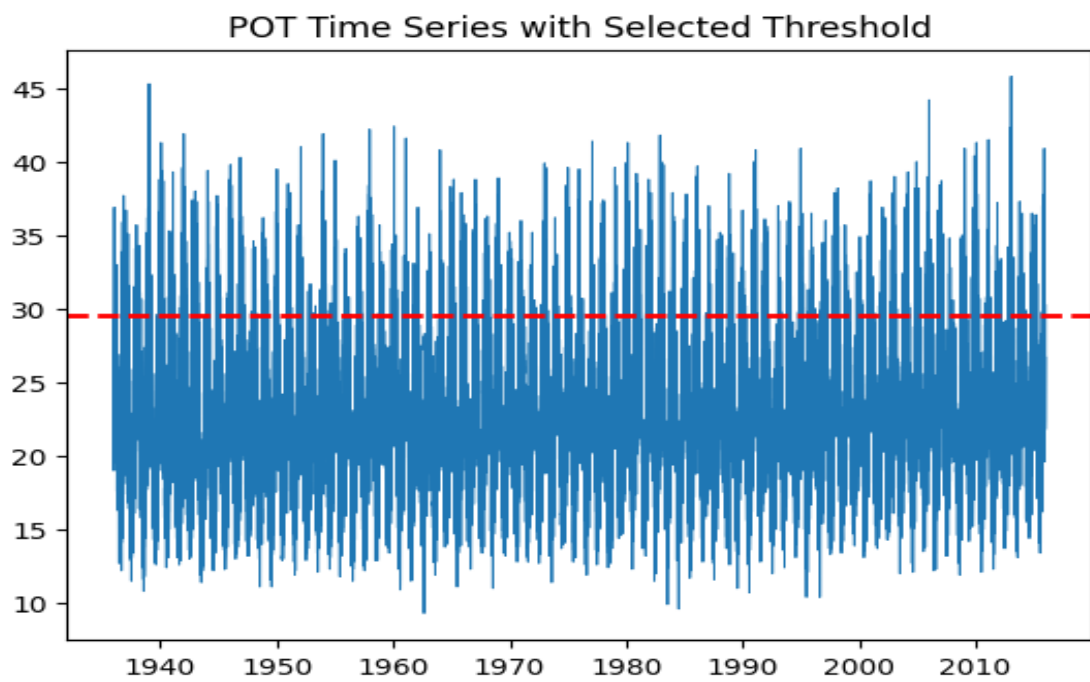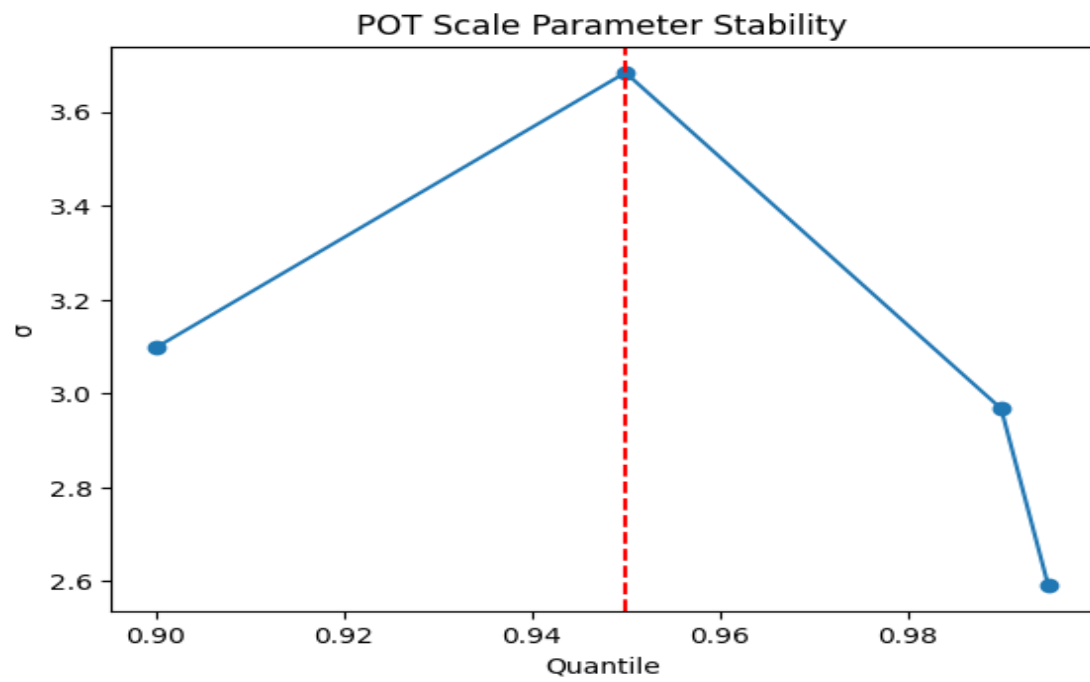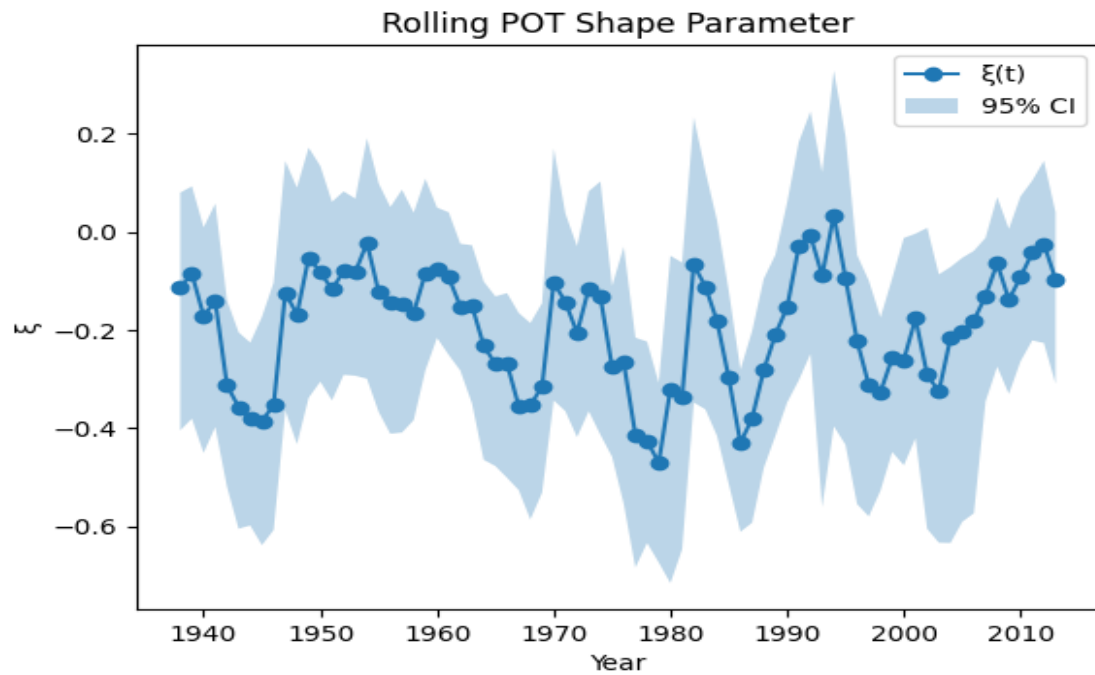
Return Period (yrs)	Return Level
50	44.30
100	45.03

Interpretation: The **GEV** distribution fitted to annual block maxima indicates a **Weibull-type (bounded upper tail)** behavior. Optimal POT threshold q=0.95 based on minimum bootstrap uncertainty. Rolling POT shows no significant trend in ξ(t) (slope=0.0002). Mann-Kendall p=0.872, Pettitt p=1.329. Return levels for [50, 100] yrs calculated.