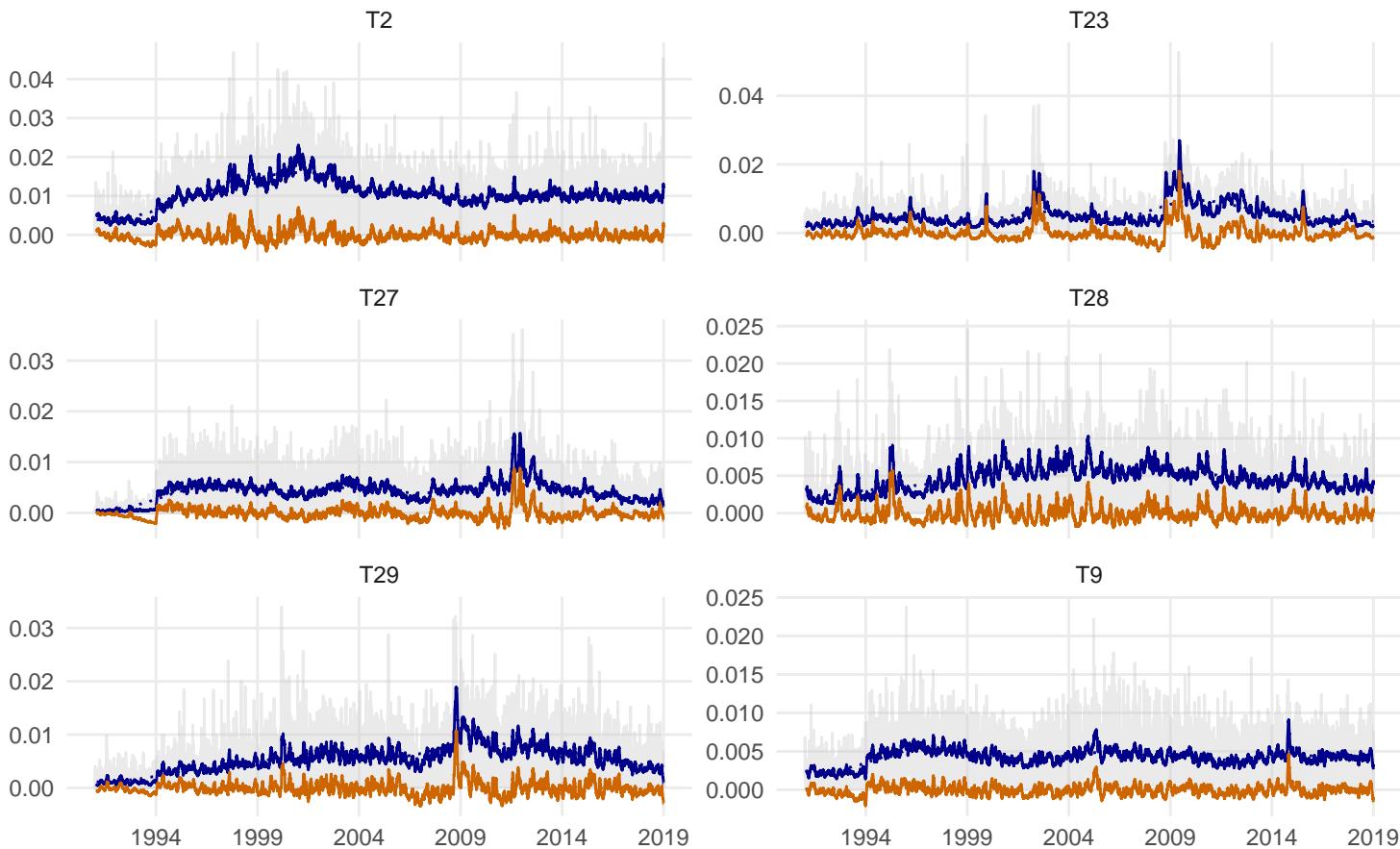


Transformation of topics series

original smoothed filtered final



smoothed = 30 day trailing moving average, filtered = biweight filter with bandwidth 1200, final = smoothed minus filtered series.