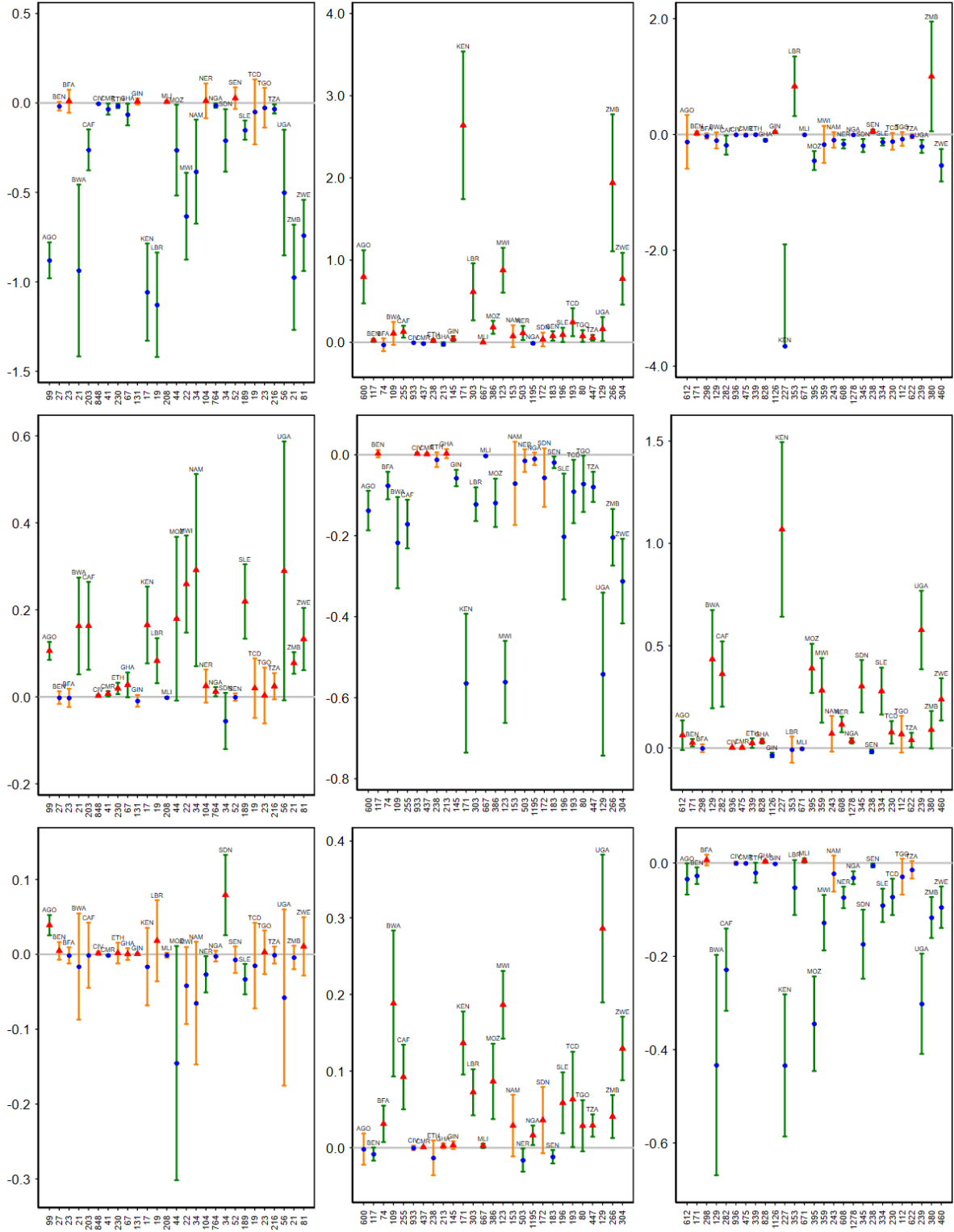


Online Appendix

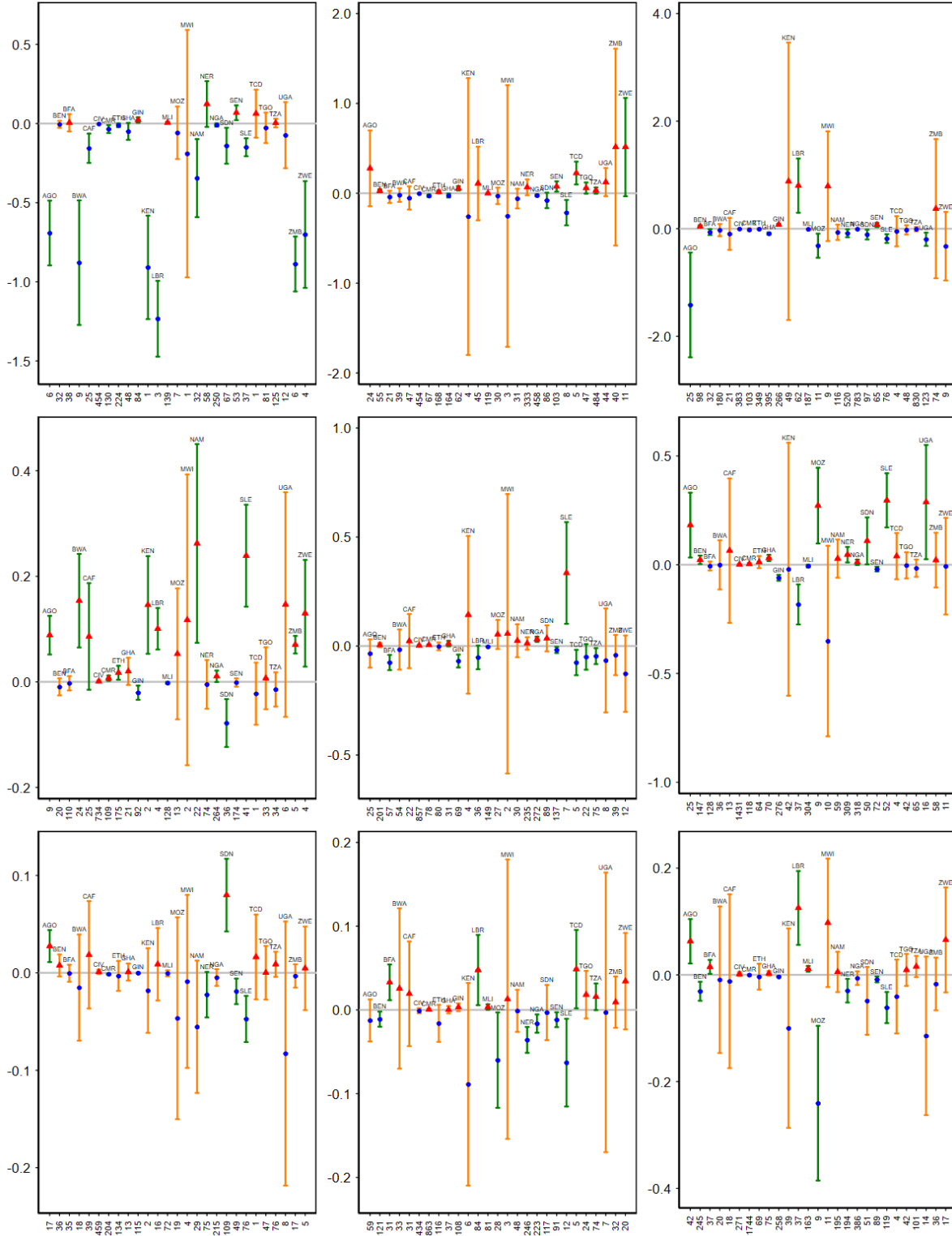
This online appendix showing robustness checks is subject to additions with time.

Figure 1: OLS coefficients by country code ($\tau = 300, \gamma = 0.64$)



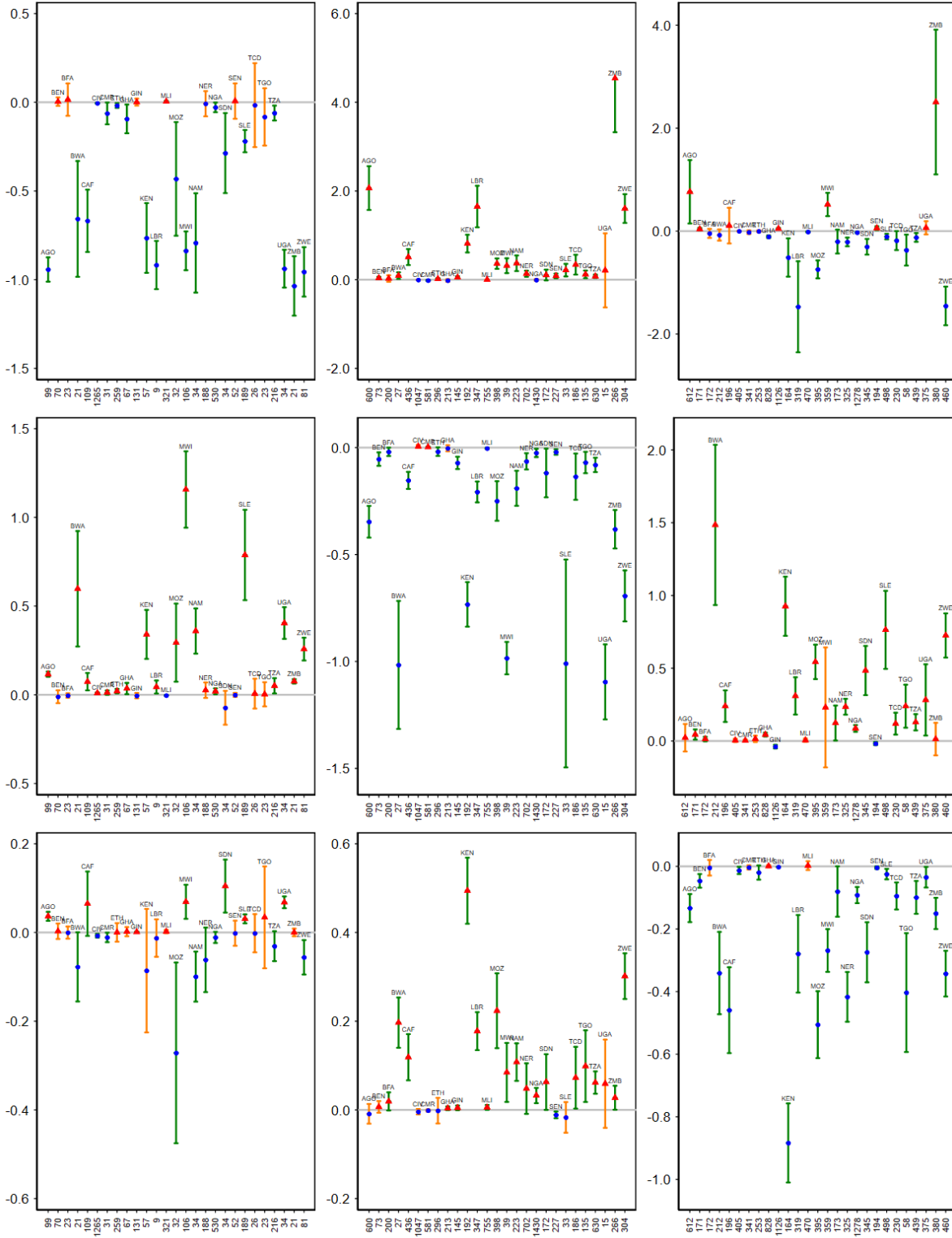
Note: Columns show coefficients for cities in tiers 1 to 3 from left to right. Rows are for tier 1, 2 and 3 (top to bottom) ΔMA effects on cities of each type. Points with green error bands show points that are significant at the 10% level, but error bands show 5% confidence intervals. Blue [orange] points are negative [positive]. Numbers on horizontal axis are degrees of freedom in estimation.

Figure 2: IV coefficients by country code ($\tau = 300, \gamma = 0.64$)



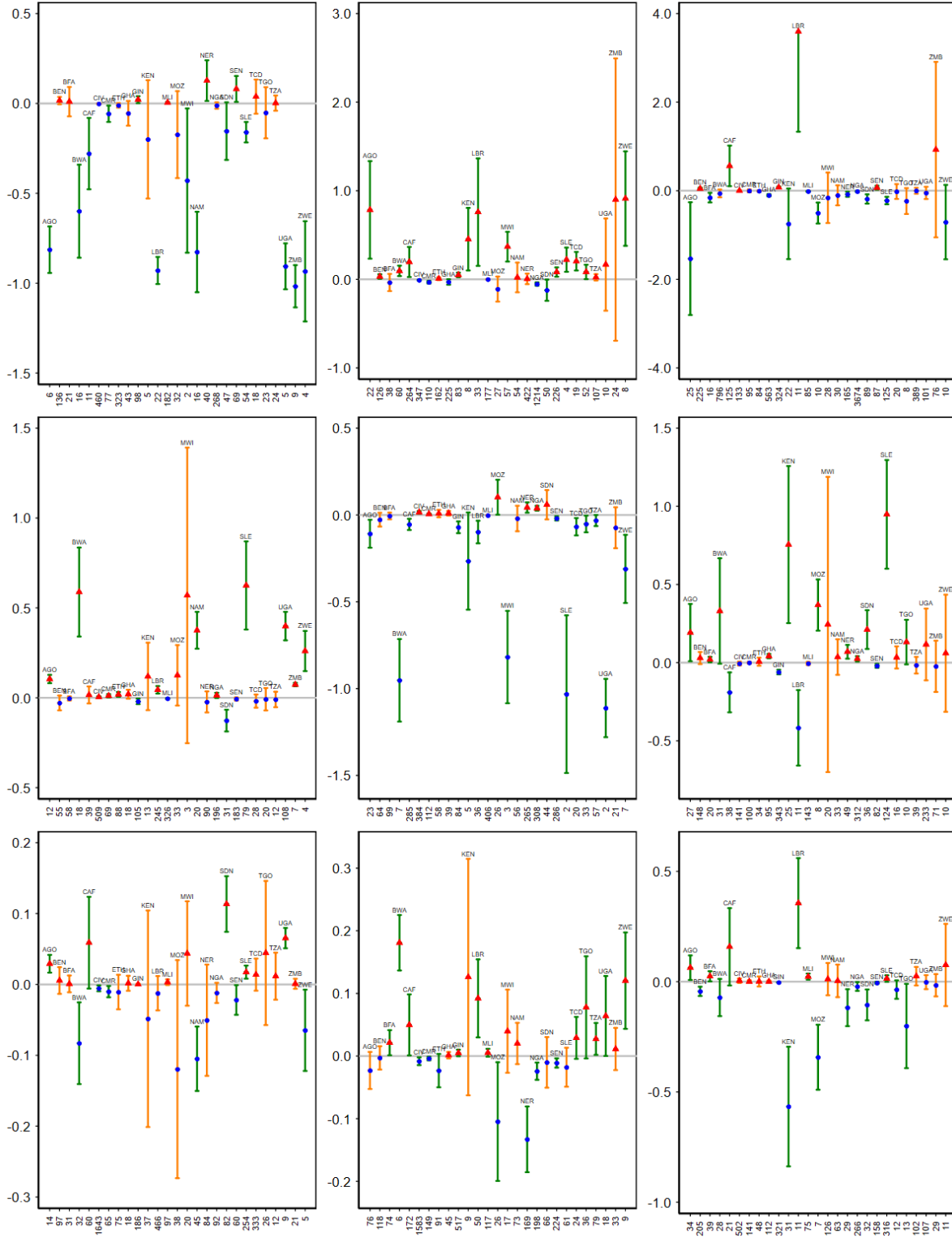
Note: Columns show coefficients for cities in tiers 1 to 3 from left to right. Rows are for tier 1, 2 and 3 (top to bottom) ΔMA effects on cities of each type. Points with green error bands show points that are significant at the 10% level, but error bands show 5% confidence intervals. Blue [orange] points are negative [positive]. Numbers on horizontal axis show 1st stage partial Sanderson-Windmeijer F-stats.

Figure 3: OLS coefficients by country code($\tau = 900$, no constraint on tier structure)



Note: Columns show coefficients for cities in tiers 1 to 3 from left to right. Rows are for tier 1, 2 and 3 (top to bottom) ΔMA effects on cities of each type. Points with green error bands show points that are significant at the 10% level, but error bands show 5% confidence intervals. Blue [orange] points are negative [positive]. Numbers on horizontal axis are degrees of freedom in estimation.

Figure 4: IV coefficients by country code ($\tau = 900$, no constraint on tier structure)



Note: Columns show coefficients for cities in tiers 1 to 3 from left to right. Rows are for tier 1, 2 and 3 (top to bottom) ΔMA effects on cities of each type. Points with green error bands show points that are significant at the 10% level, but error bands show 5% confidence intervals. Blue [orange] points are negative [positive]. Numbers on horizontal axis show 1st stage partial Sanderson-Windmeijer F-stats.