Appendix

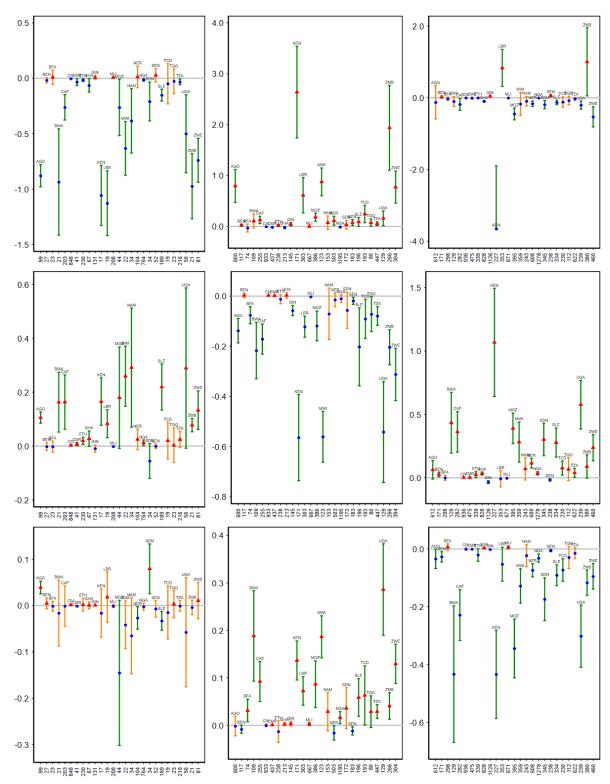


Figure 1: OLS coefficients by country $code(\tau = 300, \gamma = 0.64)$

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.

0.5 2.0 0.0 -0.5 0.0 -1.0 -1.0 -2.0 -1.5 1.0 0.5 0.4 0.5 0.0 0.2 -0.5 -0.2 0.2 0.2 0.1 0.1 -0.1 -0.2 -0.1 -0.2 -0.2 -0.4

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.

0.5 0.0 4.0 2.0 2.0 -0.5 0.0 -1.0 -2.0 -1.5 1.5 1.0 -0.5 0.5 0.5 0.0 -1.5 -0.5 0.2 0.6 0.0 -0.2 0.0 -0.4 -0.2 0.2 -0.6 -0.4 0.0 -0.8 -1.0 -0.6 6600 - 273 - 273 - 270 -

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

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.

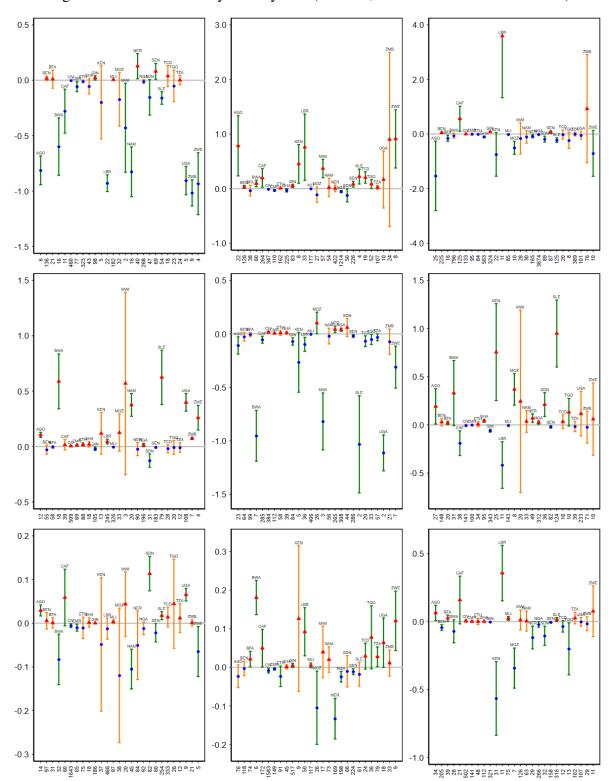


Figure 4: IV coefficients by country $code(\tau = 900, no constriant on tier structure)$

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.