posed to consider products of the observables to increase the number of equations in the system and analyzed conditions for identification; Ben-Moshe (2012) provided necessary and sufficient conditions under which this strategy leads to identification when there may be some dependence.

B. Error correlations with more observables.

The extension to non-zero $E(u_x|z)$ in model 3 is trivial if this expectation is a known function. A more interesting case results if the errors u_x and u are related, e.g.

$$u_x = \rho u + \eta; \eta \perp z.$$

With an unknown parameter (or function of observables) ρ if more observations are available more convolution equations can be written to identify all the unknown functions. Suppose that additionally a observation y is available with

$$\begin{aligned} y &= x^* + u_y; \\ u_y &= \rho u_x + \eta_1; \eta_1 \perp, \eta, z. \end{aligned}$$

Without loss of generality consider the univariate case and define $w_x = E(xf(z)|z); w_y = E(yf(z)|z)$. Then the system of convolution equations expands to