

Supplementary Table 2. Sensitivity analysis of $E(\pi_{irg})$, $[V(\pi_{irg})]^{1/2}$ and 95%CI of π_{irg} for different values of the noise level ($s_0 = 0.1, 0.2, 0.3$) and selected values of $\pi_{rg} = 0.1, 0.5$ and 0.99 . Values of $E(\pi_{irg})$, $[V(\pi_{irg})]^{1/2}$ and 95%CI of π_{irg} are obtained by stochastic simulation, generating 10^7 observations from the logistic-normal distribution $L(\pi_{rg}, s_0)$.

| | $\pi_{rg} = 0.1$ | | | $\pi_{rg} = 0.5$ | | | $\pi_{rg} = 0.99$ | | |
|------------|------------------|------------------------|------------------|------------------|------------------------|------------------|-------------------|------------------------|------------------|
| s_0 | $E(\pi_{irg})$ | $[V(\pi_{irg})]^{1/2}$ | 95%CI | $E(\pi_{irg})$ | $[V(\pi_{irg})]^{1/2}$ | 95%CI | $E(\pi_{irg})$ | $[V(\pi_{irg})]^{1/2}$ | 95%CI |
| 0.1 | 0.1036 | 0.0295 | 0.0564 0.1711 | 0.5000 | 0.0775 | 0.3499 0.6501 | 0.9895 | 0.0034 | 0.9816 0.9946 |
| 0.2 | 0.1072 | 0.0436 | 0.0442 0.2107 | 0.5000 | 0.1068 | 0.2937 0.7061 | 0.9890 | 0.0051 | 0.9763 0.9958 |
| 0.3 | 0.1107 | 0.0548 | 0.0366 0.2453 | 0.5000 | 0.1281 | 0.2548 0.7452 | 0.9884 | 0.0067 | 0.9713 0.9966 |