Quadro resumo comparando os principais estimadores:

MQ sobre r = M:

$$\hat{\bar{\mathbf{p}}} = \left[\bar{\bar{\mathbf{A}}}^{\mathrm{T}}\bar{\bar{\mathbf{A}}}\right]^{-1}\bar{\bar{\mathbf{A}}}^{\mathrm{T}}\bar{\mathbf{y}}^{o}$$

$$\hat{\bar{\mathbf{p}}} = \bar{\bar{\mathbf{V}}}_{\mathrm{M}}\bar{\bar{\mathbf{S}}}_{\mathrm{M}}^{-1}\bar{\bar{\mathbf{U}}}_{\mathrm{M}}^{\mathrm{T}}\bar{\mathbf{y}}^{o}$$

MQ SUB r = N:

$$\hat{\bar{\mathbf{p}}} = \bar{\bar{\mathbf{A}}}^{\mathrm{T}}\left[\bar{\bar{\mathbf{A}}}\,\bar{\bar{\mathbf{A}}}^{\mathrm{T}}\right]^{-1}\bar{\mathbf{y}}^{o}$$

$$\hat{\bar{\mathbf{p}}} = \bar{\bar{\mathbf{V}}}_{\mathrm{N}}\bar{\bar{\mathbf{S}}}_{\mathrm{N}}^{-1}\bar{\bar{\mathbf{U}}}_{\mathrm{N}}^{\mathrm{T}}\bar{\mathbf{y}}^{o}$$

RR:

$$\bar{\mathbf{p}}^{*} = \left[\bar{\bar{\mathbf{A}}}^{\mathrm{T}}\bar{\bar{\mathbf{A}}} + k\,\bar{\bar{\mathbf{I}}}\right]^{-1}\bar{\bar{\mathbf{A}}}^{\mathrm{T}}\bar{\mathbf{y}}^{o}$$

$$\bar{\mathbf{p}}^{*} = \bar{\bar{\mathbf{V}}}\left[\bar{\bar{\mathbf{S}}} + k\bar{\bar{\mathbf{S}}}^{-1}\right]^{-1}\bar{\bar{\mathbf{U}}}^{\mathrm{T}}\bar{\mathbf{y}}^{o}$$

IG:

$$\bar{\mathbf{p}}^{+} = \bar{\bar{\mathbf{V}}}_{r}\bar{\bar{\mathbf{S}}}_{r}^{-1}\bar{\bar{\mathbf{U}}}_{\mathrm{r}}^{\mathrm{T}}\bar{\mathbf{y}}^{o}$$

MQ sobre r = M:

$$\hat{\bar{\mathbf{p}}} = \sum_{i=1}^{M} \frac{\beta_i}{S_i} \bar{\mathbf{v}}_i$$

$$\hat{\bar{\mathbf{p}}} = \bar{\bar{\mathbf{V}}}_M \bar{\bar{\mathbf{S}}}_M^{-1} \bar{\bar{\mathbf{U}}}_M^T \bar{\mathbf{y}}^o$$

MQ SUB r = N:

$$\hat{\bar{\mathbf{p}}} = \sum_{i=1}^{N} \frac{\beta_i}{S_i} \bar{\mathbf{v}}_i$$

$$\hat{\bar{\mathbf{p}}} = \bar{\bar{\mathbf{V}}}_N \bar{\bar{\mathbf{S}}}_N^{-1} \bar{\bar{\mathbf{U}}}_N^T \bar{\mathbf{y}}^o$$

RR:

$$\bar{\mathbf{p}}^* = \sum_{i=1}^{M} \frac{S_i}{S_i^2 + k} \beta_i \bar{\mathbf{v}}_i$$

$$\bar{\mathbf{p}}^* = \bar{\bar{\mathbf{V}}} \left[\bar{\bar{\mathbf{S}}} + k \bar{\bar{\mathbf{S}}}^{-1} \right]^{-1} \bar{\bar{\mathbf{U}}}^T \bar{\mathbf{y}}^o$$

IG:

$$\bar{\mathbf{p}}^+ = \sum_{i=1}^{r} \frac{\beta_i}{S_i} \bar{\mathbf{v}}_i$$

$$\bar{\mathbf{p}}^+ = \bar{\bar{\mathbf{V}}}_r \bar{\bar{\mathbf{S}}}_r^{-1} \bar{\bar{\mathbf{U}}}_r^T \bar{\mathbf{y}}^o$$