

TABLE 3.4. Estimators of β_j in the case of orthonormal columns of \mathbf{X} . M and λ are constants chosen by the corresponding techniques; sign denotes the sign of its argument (± 1), and x_+ denotes “positive part” of x . Below the table, estimators are shown by broken red lines. The 45° line in gray shows the unrestricted estimator for reference.

Estimator	Formula
Best subset (size M)	$\hat{\beta}_j \cdot I(\hat{\beta}_j \geq \hat{\beta}_{(M)})$
Ridge	$\hat{\beta}_j / (1 + \lambda)$
Lasso	$\text{sign}(\hat{\beta}_j)(\hat{\beta}_j - \lambda)_+$

