VANISHING OF EXT AND REFLEXIVITY

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ABSTRACT. I will discuss a natural generalization of a question posed by Avramov, Buchweitz and Sega, that is: Given two semidualizing complexes B and C over a commutative Noetherian ring R does the vanishing of $\operatorname{Ext}_R^n(B,C)$ for $n \gg 0$ imply B is C-reflexive? The investigation of this question leads to a natural equivalence relation on the set of (isomorphism classes of) semidualizing complexes. I will describe some aspects of this relation. I will also discuss some results related to the core question, including some special cases.