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For any ring R , Daniel Bravo Vivallo introduced the stable derived category of R by putting an appropriate model structure on the category of chain complexes of R -modules. The fibrant objects are the exact chain complexes of injective R -modules. We look at the dual approach. That is, there is a model category structure on chain complexes of R -modules having exact complexes of projective R -modules as the cofibrant objects. We believe the two approaches lead to two different homotopy categories in general. So there is an injective stable derived category of R and a projective stable derived category of R as well as an adjunction between them which comes from a Quillen adjunction between the model structures. But in some cases, such as when R is Gorenstein, this adjunction is in fact a Quillen equivalence between the model structures, which means the associated homotopy categories are equivalent in this case. (Received September 20, 2011)