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In this paper we present an affine two-factor dynamic term structure model for Treasury nominal and inflation-indexed bonds. The latter are formally referred to as TIPS. We present closed-form solutions for nominal bonds and inflation-indexed bonds. Two state variables that drive the dynamics of bond prices are nominal short rate and inflation. We estimate the model using 1997-2008 monthly prices of nominal Treasury bonds and TIPS. In particular, we compute the embedded option value in TIPS. This value arises from the fact that while nominal coupon payments vary with inflation rate during the TIPS life, the principal at maturity is protected against deflation. Our preliminary results show that this value has recently become positive. (Received September 01, 2009)