Kawamata-Namikawa developed log deformation theory of normal crossing varieties. By using this, we can construct Calabi-Yau manifolds as smoothings of normal crossing varieties. I'll explain construction of non-Kähler Calabi-Yau 3-folds by this method. If time permits, I'll also mention recent results on smoothing of degenerate CY varieties and its application. This is based on joint work with Kenji Hashimoto.