## Rüdiger Frey, Kevin Kurt, Camilla Damian How safe are european safe bonds? An analysis from the perspective of modern credit risk models

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Abstract: Several proposals for the reform of the euro area advocate the creation of a market in synthetic securities backed by portfolios of sovereign bonds. Most debated are the so-called European Safe Bonds or ESBies proposed by Brunnermeier et al. (2017). The potential benefits of ESBies and other bond-backed securities hinge on the assertion that these products are really safe. In this paper we provide a comprehensive quantitative study of the risks associated with ESBies and related products, using an affine credit risk model with regime switching as vehicle for our analysis. We discuss a recent proposal of Standard and Poors for the rating of ESBies, we analyse the impact of model parameters and attachment points on the size and the volatility of the credit spread of ESBies and we consider several approaches to assess the market risk of ESBies. Moreover, we compare ESBies to synthetic securities created by pooling the senior tranche of national bonds as suggested by Leandro and Zettelmeyer (2019). The paper concludes with a brief discussion of the policy implications from our analysis. Keywords: European safe bonds; European monetary union; Securitization of credit risk; Markov modulated affine models

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