

# Robust Replication of Default Contingent Claims

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## Abstract

We show how to replicate the payoffs to a class of default-contingent claims by taking static positions in a continuum of credit default swaps (CDS) of different maturities. Although we assume deterministic interest rates and a constant recovery rate on the CDS, the replication is otherwise robust in that we make no assumptions on the process triggering default. In particular, we can robustly replicate the payoff to an Arrow Debreu security paying one dollar at a fixed date if a given entity survives to that date. As a consequence, we can determine risk-neutral survival probabilities from an arbitrarily given yield curve and CDS curve.