We say a Radon measure is uniformly optimally doubling if its doubling ratio converges uniformly to some function $f$. In this talk, we will prove that there exists $n$ (depending on the function to which the doubling ratios converge) such that away from a set of Hausdorff dimension $n - 3$, the measure is $n$-rectifiable. (Received January 20, 2019)