In this talk we consider polynomials $P_n$ satisfying a three-term recurrence relation of the form $zP_n = P_{n+1} + a_n P_{n-1}$, with random positive coefficients $a_n$. Assuming the coefficients $a_n$ are i.i.d., we study the mean zero asymptotic distribution and mean Padé asymptotic distribution of these polynomials, as well as relations between them. This is a joint work in progress with V. Prokhorov. (Received July 23, 2017)