A commutative Banach algebra where 0 is the only nilpotent.

A $C^*$-algebra is commutative if and only if it has 0 as its unique nilpotent element. This is due to I. Kaplansky (cf. [I. Kaplansky, Ring isomorphisms of Banach algebras, Canada. J.Math. 6 (1954), 374-381,]).