# Abstract

An economy is in a liquidity trap when monetary policy cannot influence either real or nominal variables of interest. A necessary condition for this is that the short nominal interest rate is constrained by its lower bound, typically zero. The paper considers two small analytical models, one Old-Keynesian, the other New-Keynesian possessing equilibria where not only the short nominal interest rate, but nominal interest rates at all maturities can be stuck at their zero lower bound.

When the authorities remove the zero nominal interest rate floor by adopting an augmented monetary rule that systematically keeps the nominal interest rate on base money (including currency) at or below the nominal interest rate on non-monetary instruments, the lower bound equilibria are eliminated, thus allowing an economic system to avoid the trap or to escape from it. This rule will involve paying negative interest on currency, that is, imposing a 'carry tax' on currency, an idea first promoted by Gesell. The administration costs associated with a currency carry tax must be set against the benefits of potentially lower shoe-leather costs and lower menu costs which are made possible by the its introduction. There are also output-gap avoidance benefits from eliminating the zero lower bound trap.

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