# Inflation Linked Bond Curve Introduction

# Inflation Curve

- Inflation indexed bonds are bonds whose principal and coupons are indexed to inflation or deflation on a daily basis.
- Inflation index, such as consumer price index (CPI), measures the average price change of most representative consumer goods.
- Inflation bonds pay coupons indexed to an inflation index. That means that both the coupons and the principal are adjusted to take account of accrued inflation.
- It can be modeled by a fixed rate bond except for the notional is indexed to some inflation index.

# Inflation Curve

- An inflation bond is designed to hedge the inflation risk. It allows investors hose liabilities indexed to changes in inflation or wages.
- Inflation bond has higher coupon than regular bond and lower volatility compared to other risk assets.
- It is attractive to retirement planning and pension funds for its inflation protection.

# Inflation Curve

- Compounding will occur on coupon dates. Coupon dates are the dates on the frequency cycle defined by the maturity date, irrespective of whether cash flows occur on those dates.
- A coupon period is defined as the period between two consecutive coupon dates.
- For inflation linked bond, cash flows and coupon dates that are due to occur on non-business days are not adjusted.

# Inflation Curve

- Most inflation models are based on foreign currency analogy that models the evolution of the instantaneous nominal (domestic) and real (foreign) rates and of CPI (exchange rate between the nominal and real economies). The real rates are interest rates in the real (foreign) economy.
- Bond interest is adjusted to the inflation index. Interest consists of an inflation compensation component and a cash entitlement.

# Thank You

You can find more details at

https://finpricing.com/lib/EqCppi.html