Discussion of
Inflation Expectations and Risk Premiums
in an Arbitrage-Free Model of
Nominal and Real Bond Yields

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Nominal Yield Curves: 3 Factors?
Long Nominal Curves: 2 Factors?
TIPS Curves: 2 Factors?
NS Nominal Level Factor: Unit Root?

Autocorr(1) = 0.96
Average Yield Curves

![Average Yield Curves graph](image-url)
Standard Deviations of Yields

Maturity (quarters)

Nominal

TIPS
Equilibrium Inflation and Nominal Bond Pricing

Nominal Pricing Kernel:

$$\log(m^S_{t+1}) = \log(m_{t+1}) - p_{t+1}$$
Equilibrium Inflation and Nominal Bond Pricing

- Nominal Pricing Kernel:
  \[ \log(m^\$_{t+1}) = \log(m_{t+1}) - p_{t+1} \]

- Endogenous Inflation: “Taylor Rule”
  \[ i_t = \bar{\tau} + \tau_x x_t + \tau_p p_t + s_t \]
Equilibrium Inflation Process and Nominal Bond Pricing

\[ i_t = \bar{T} + \tau_x X_t + \tau_p \left( \bar{\pi} + \pi_x X_t + \pi_s S_t \right) + S_t \]

\[ \text{guess for } p_t \]

\[ \log m_{t+1} = -\log E_t \left[ \exp \left\{ \log m_{t+1} - (\bar{\pi} + \pi_x X_{t+1} + \pi_s S_{t+1}) \right\} \right] \]

\[ \text{guess for } p_{t+1} \]

- How many factors will inflation have?
- How many factors will \( m^$ have?
- How many factors will nominal yields have?
Inflation Measurement

- Using DAPMs has to be a big advance over 19th century static index numbers!
- Statisticians that construct price indices and agents and policy makers that use them are not naive about the limitations of these measurements.
- Financial data, when filtered through a DAPM and a theory of endogenous monetary policy, will provide better inflation measurements.