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

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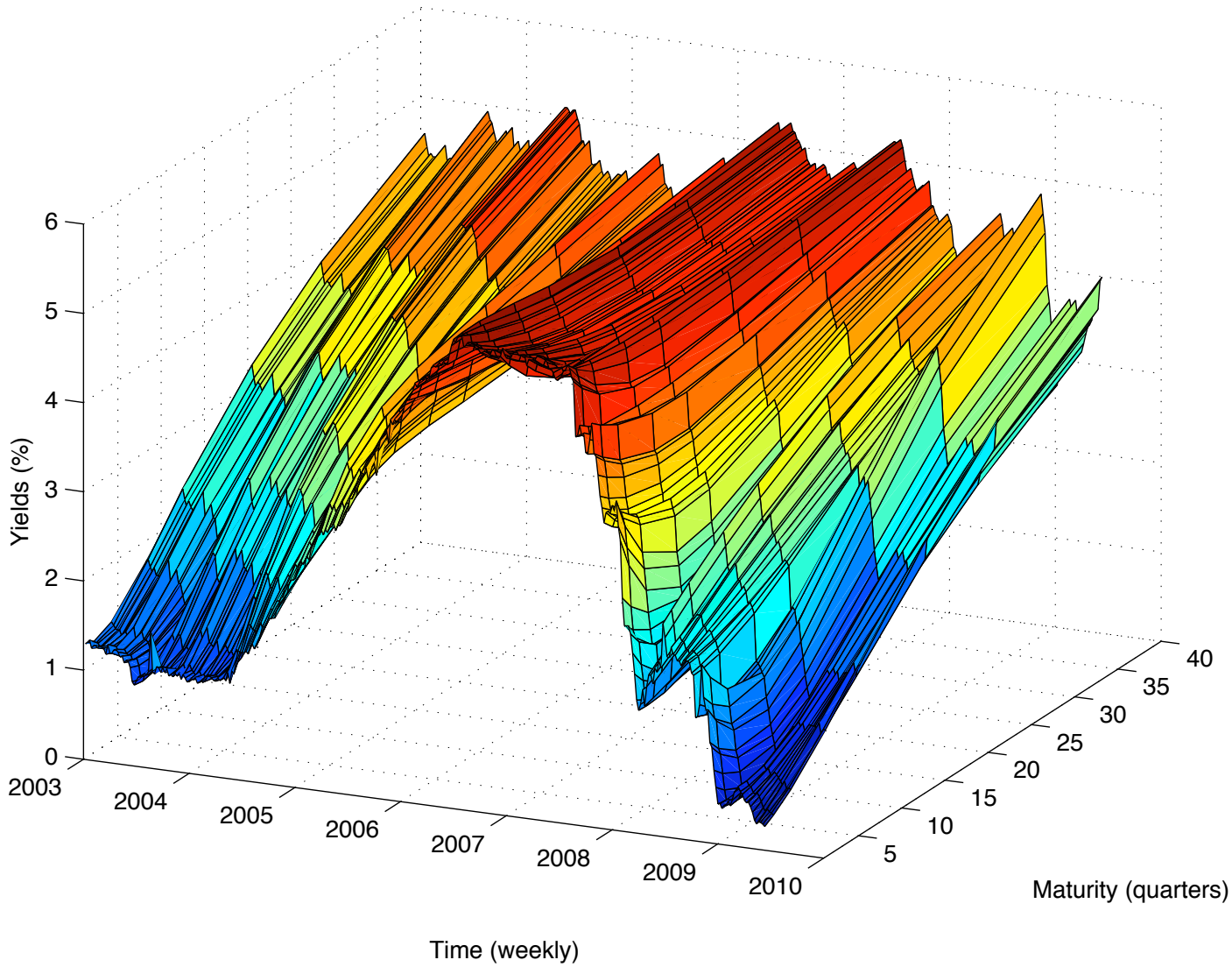
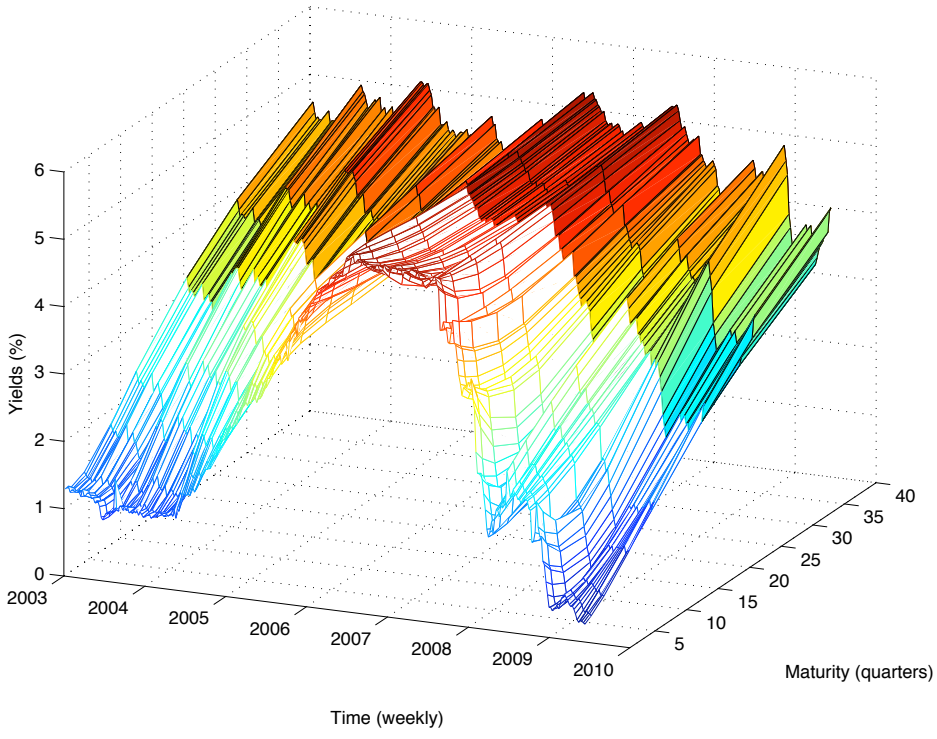
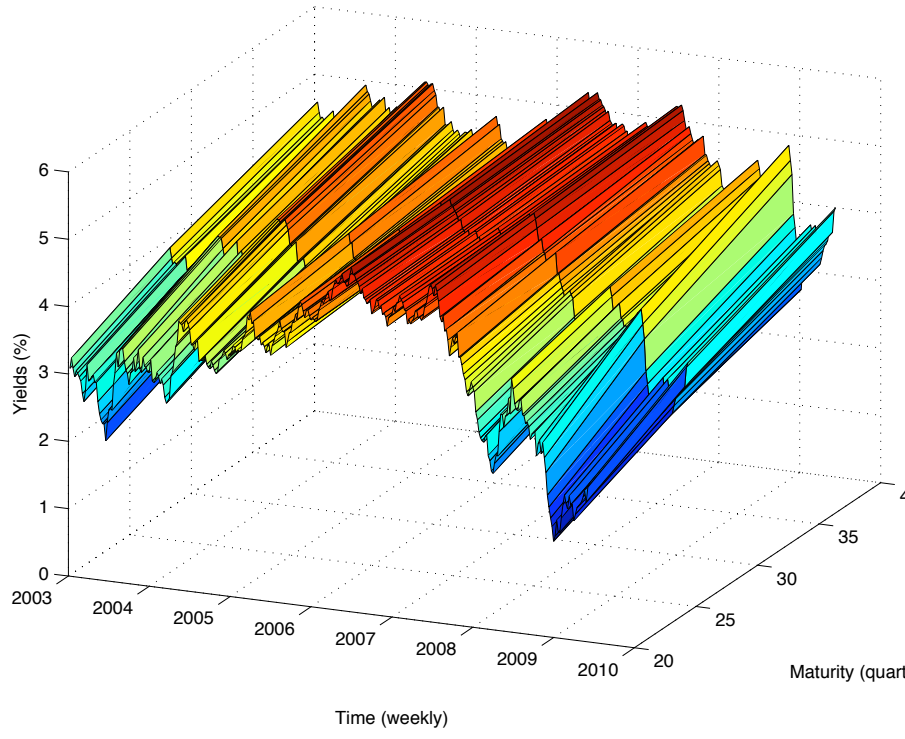
Nominal Yield Curves: 3 Factors?

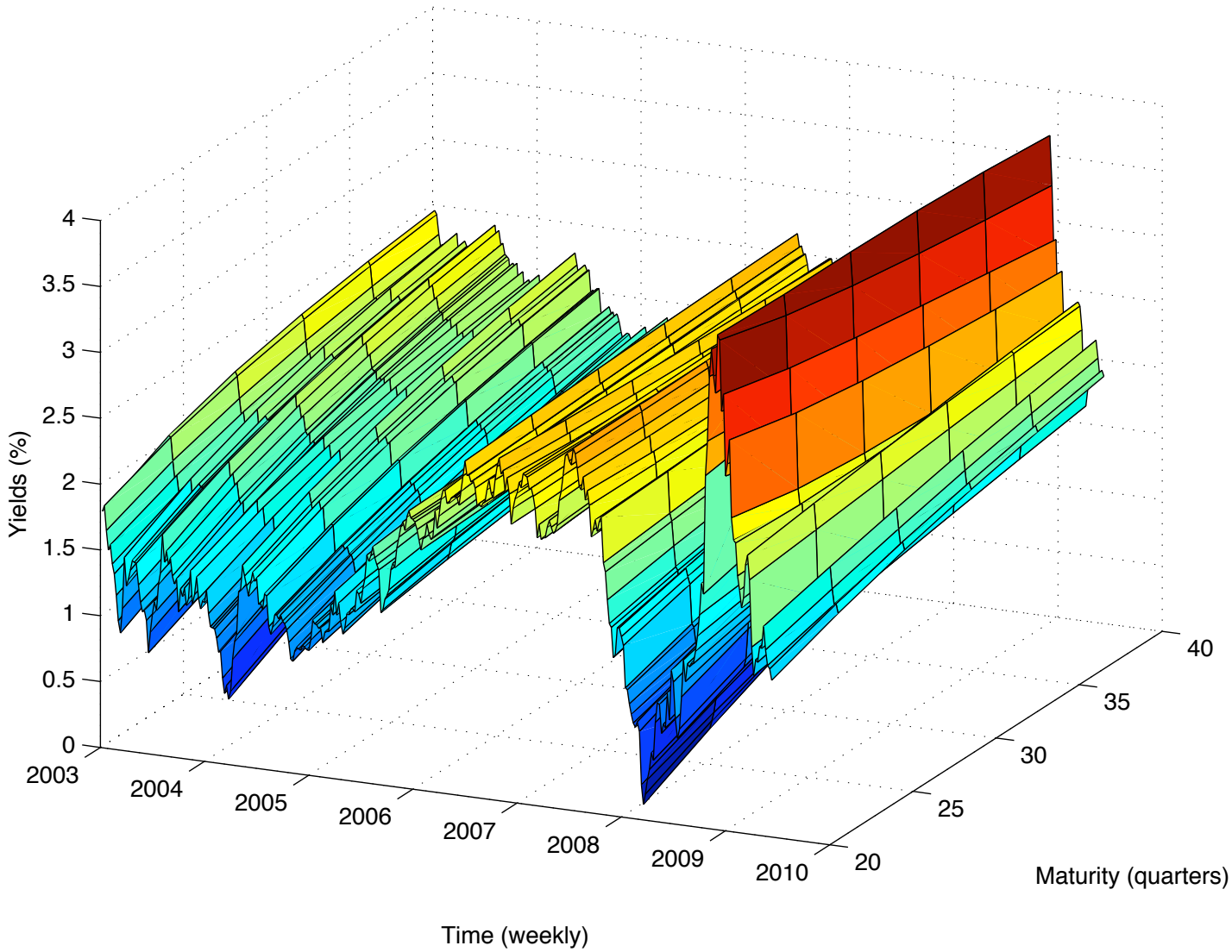


Long Nominal Curves: 2 Factors?

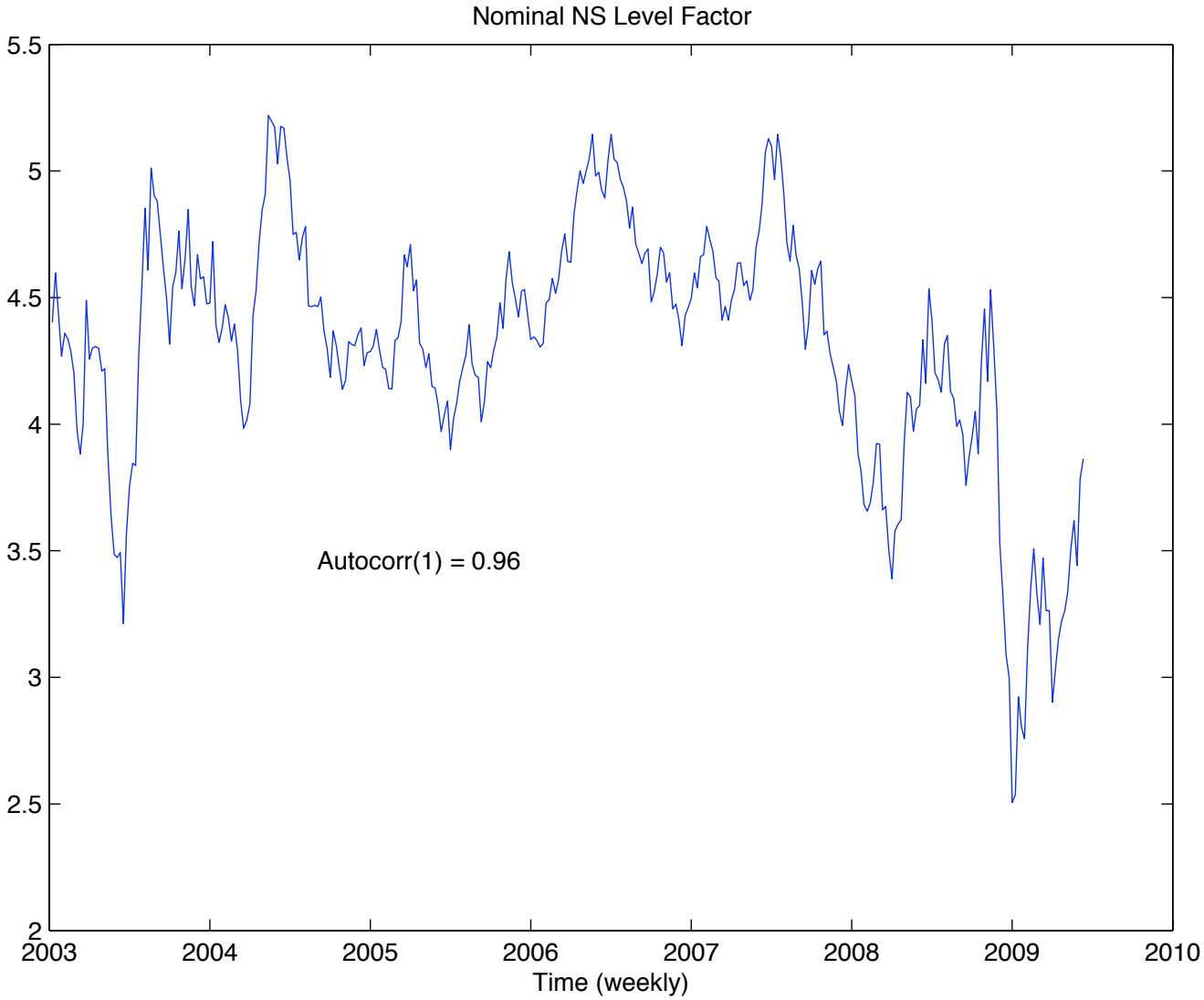




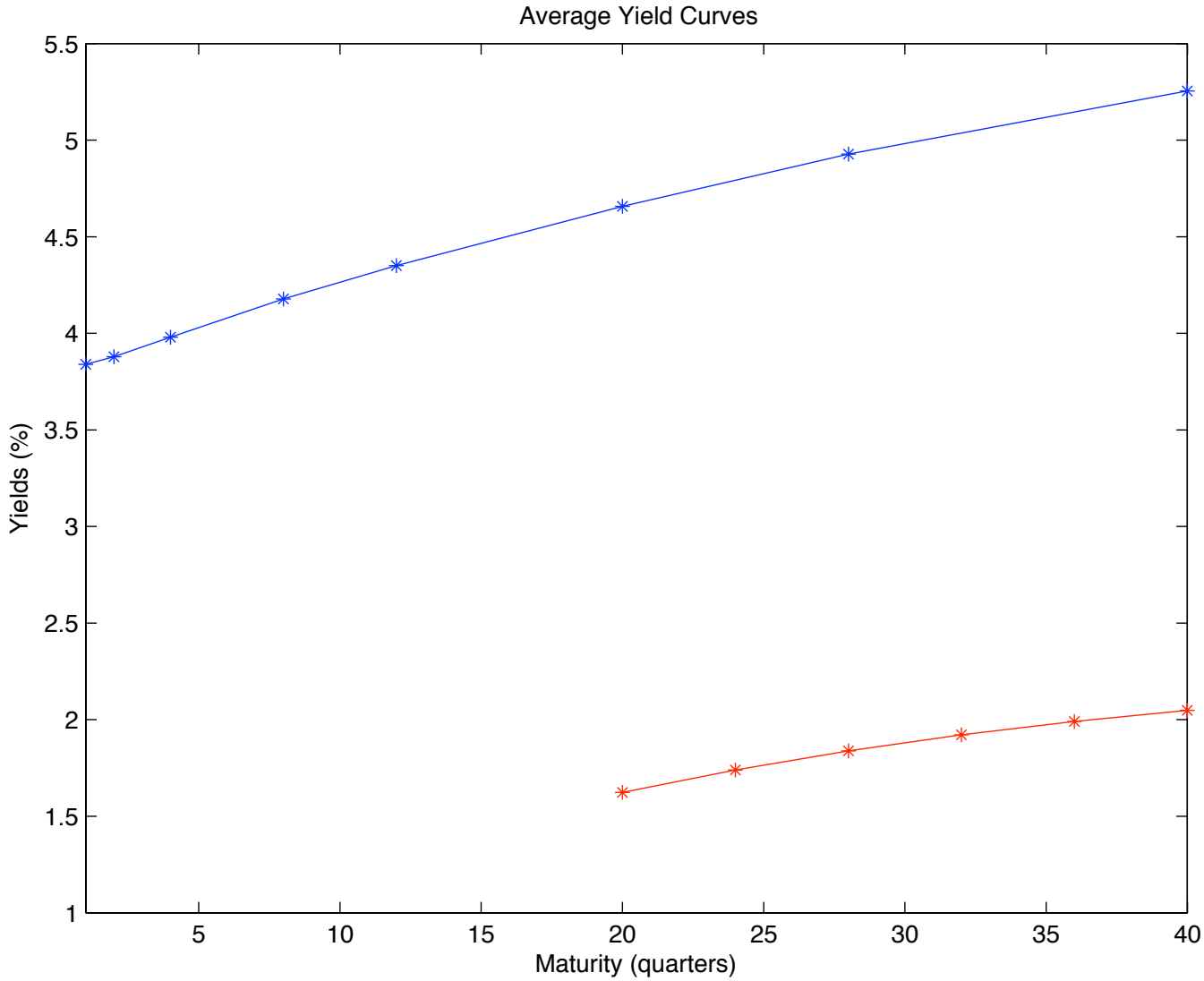
TIPS Curves: 2 Factors?



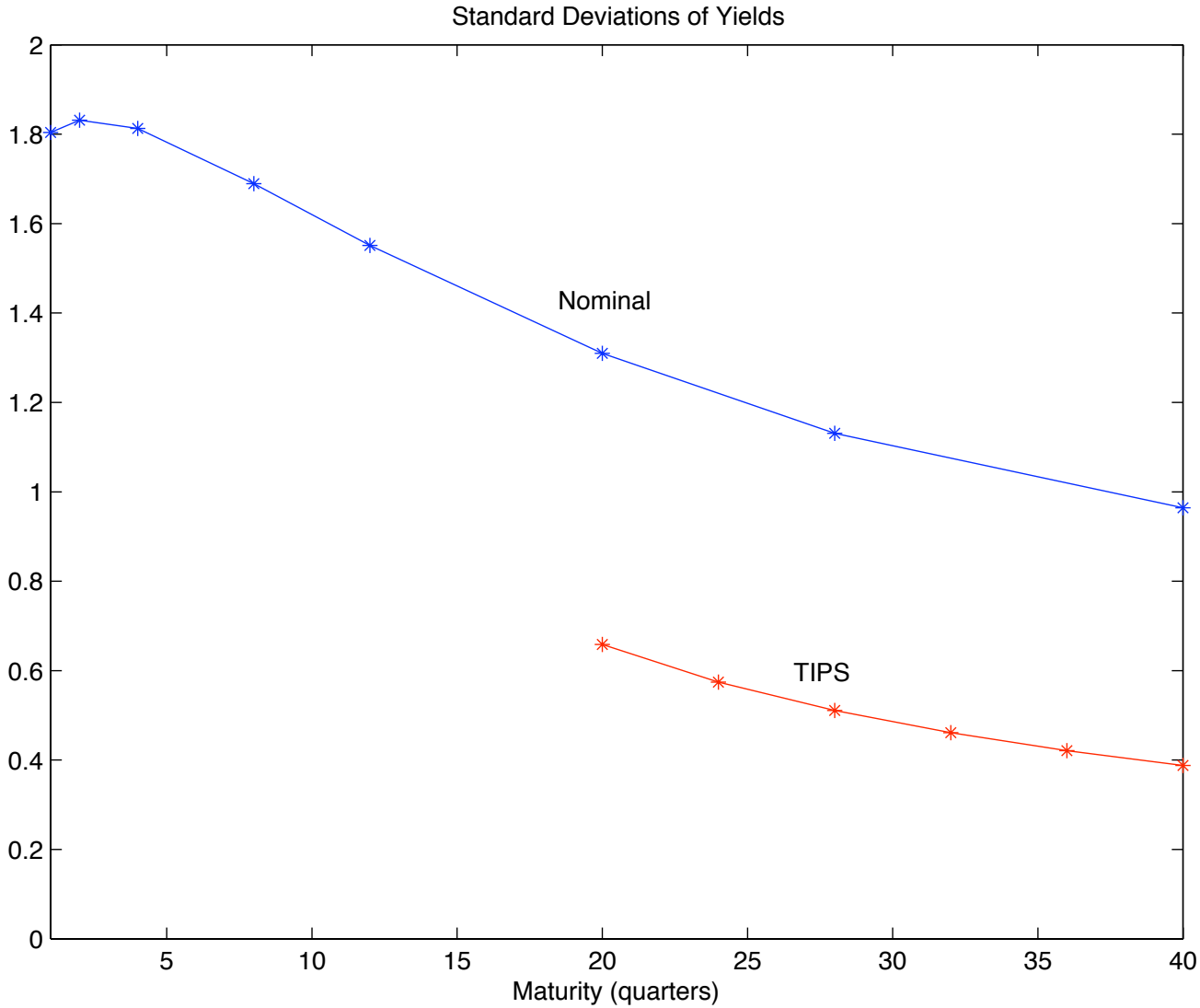
NS Nominal Level Factor: Unit Root?



Average Yield Curves



Standard Deviations of Yields



Equilibrium Inflation and Nominal Bond Pricing

- Nominal Pricing Kernel:

$$\log(m_{t+1}^{\$}) = \log(m_{t+1}) - p_{t+1}$$

Equilibrium Inflation and Nominal Bond Pricing

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$$\log(m^{\$}_{t+1}) = \log(m_{t+1}) - p_{t+1}$$

- 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

$$\overbrace{\bar{\tau} + \tau_x x_t + \tau_p \underbrace{\left(\bar{\pi} + \pi_x x_t + \pi_s s_t\right)}_{\text{guess for } p_t} + s_t}^{i_t}$$

$$= -\log E_t[\exp\{\overbrace{\log m_{t+1} - \underbrace{\left(\bar{\pi} + \pi_x x_{t+1} + \pi_s s_{t+1}\right)}_{\text{guess for } p_{t+1}}}^{\log m^{\$}_{t+1}}\}]$$

- 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.