Discussion of Hsu, Li, and Palomino "What Do Nominal Rigidities and Monetary Policy Tell Us about the Real Yield Curve?"

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Motivation for DSGE Bond Pricing

Why pursue DSGE models of the term structure?

- More robust to structural breaks in the economy
- More robust to changes in policy (monetary, fiscal, etc.)
- May be easier to model bonds at the zero lower bound
- Provide insight into *why* consumption and bonds comove
- Ensure preferences, consumption process are consistent
- Asset prices can discipline the macro model

Take U.K. Real Yield Curve Data More Seriously

U.S., Q1 2004 – Q3 2008 (Hsu, Li, and Palomino, 2013)

2-year	5-year	10-year	20-year	
1.27	1.62	2.02	2.19	
NA	2.27	2.64	2.79	(Q1 1999 – Q3 2008)

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U.K., Jan 1983 – Nov 1995 (Evans, 1998)

2-year	3-year	4-year	5-year	10-year
6.12	5.29	4.62	4.34	4.12

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U.K., Dec 1995 – Mar 2006 (Piazzesi and Schneider, 2006)

2.5-year	3-year	4-year	5-year	10-year	15-year	20-year
2.59	2.56	2.51	2.48	2.41	2.38	2.33

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In theory, the real yield curve should slope downward:

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But:

	U.S.	U.K.	
unionization rate	11.3%	18.8%	
job-finding rate	28.2%	5.6%	(Hobijn and Şahin, 2007)

Why Does the Nominal Yield Curve Slope Up?

Growing consensus the answer is countercyclical inflation risk:

- Piazzesi-Schneider (2006)
- Rudebusch-Swanson (2012): supply shocks
- Hsu-Li-Palomino (2013): permanent productivity shocks

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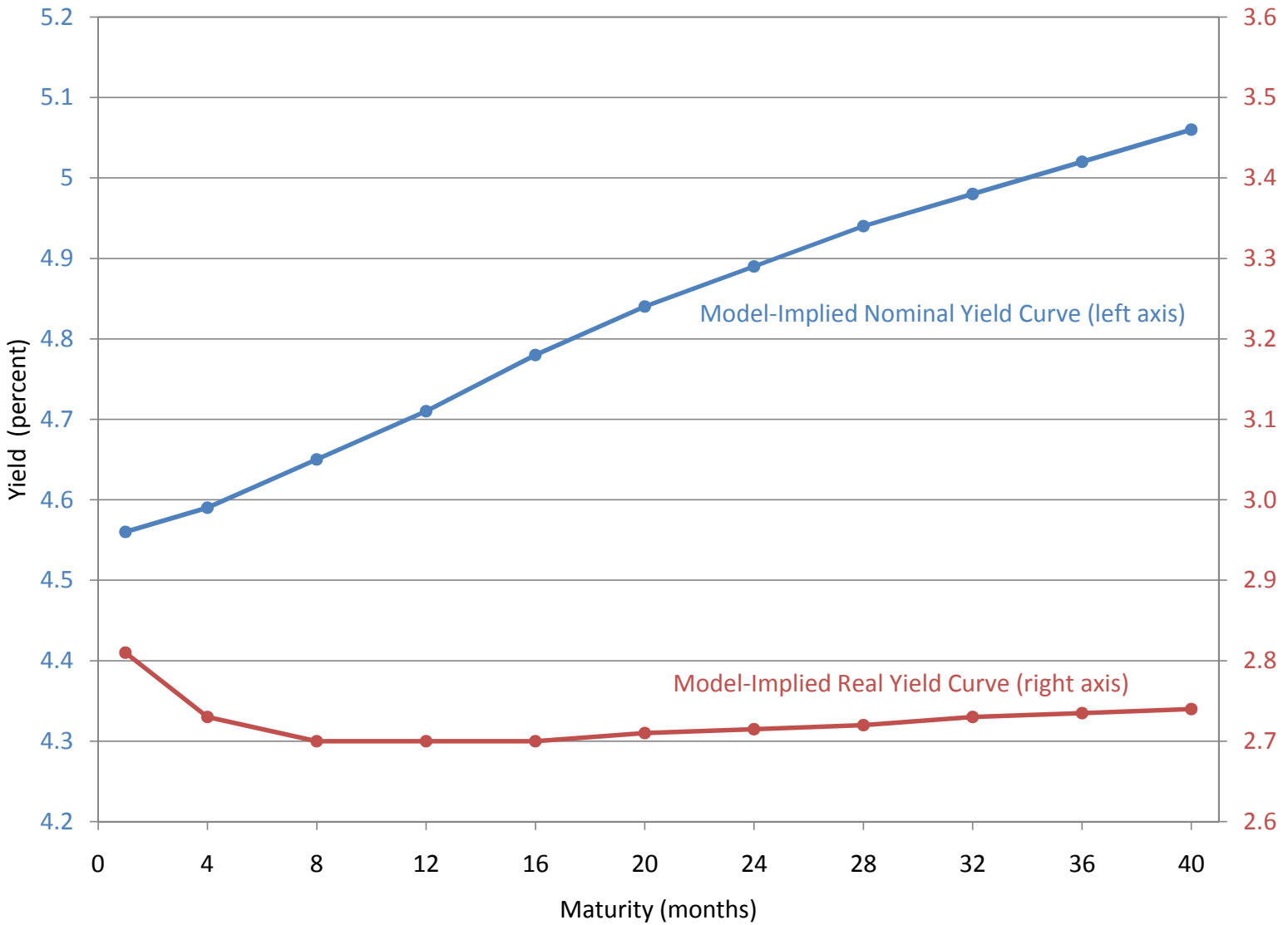
Intuitively:

- Yield curve was much more upward-sloping in the 1970s than in the 1950s or 2000s

Why Does the Nominal Yield Curve Slope Up?

Nominal and real yield curves from Rudebusch-Swanson model:



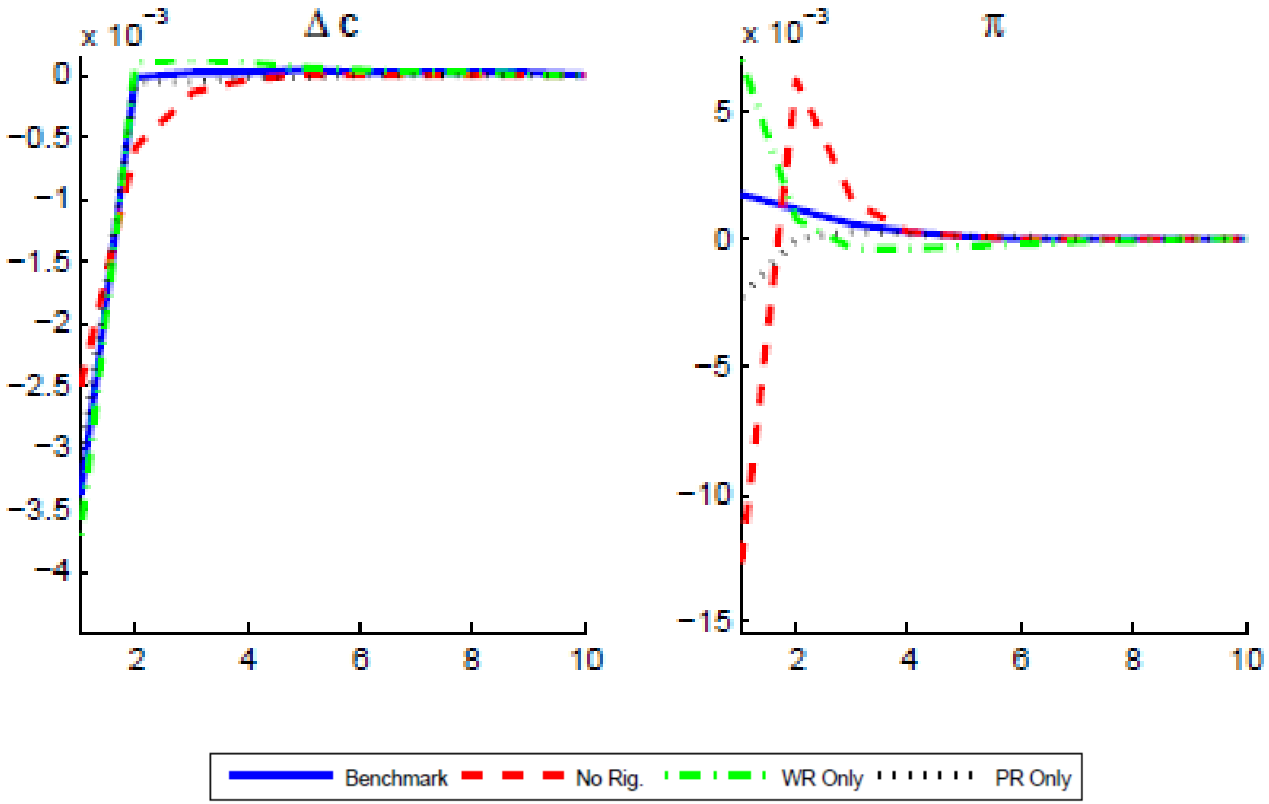
Model Is Relatively Complicated for Macro-Finance

In addition to textbook New Keynesian equations, model includes:

- Epstein-Zin preferences
- Calvo staggered wage setting
- Wage indexation
- Price indexation
- Time-varying inflation target π_t^*
- Both permanent and transitory productivity shocks
- Monetary policy shocks
- Inflation target shocks

Model Has Some Unusual Behavior

Without wage rigidities, inflation in the model *falls* in response to a negative productivity shock:



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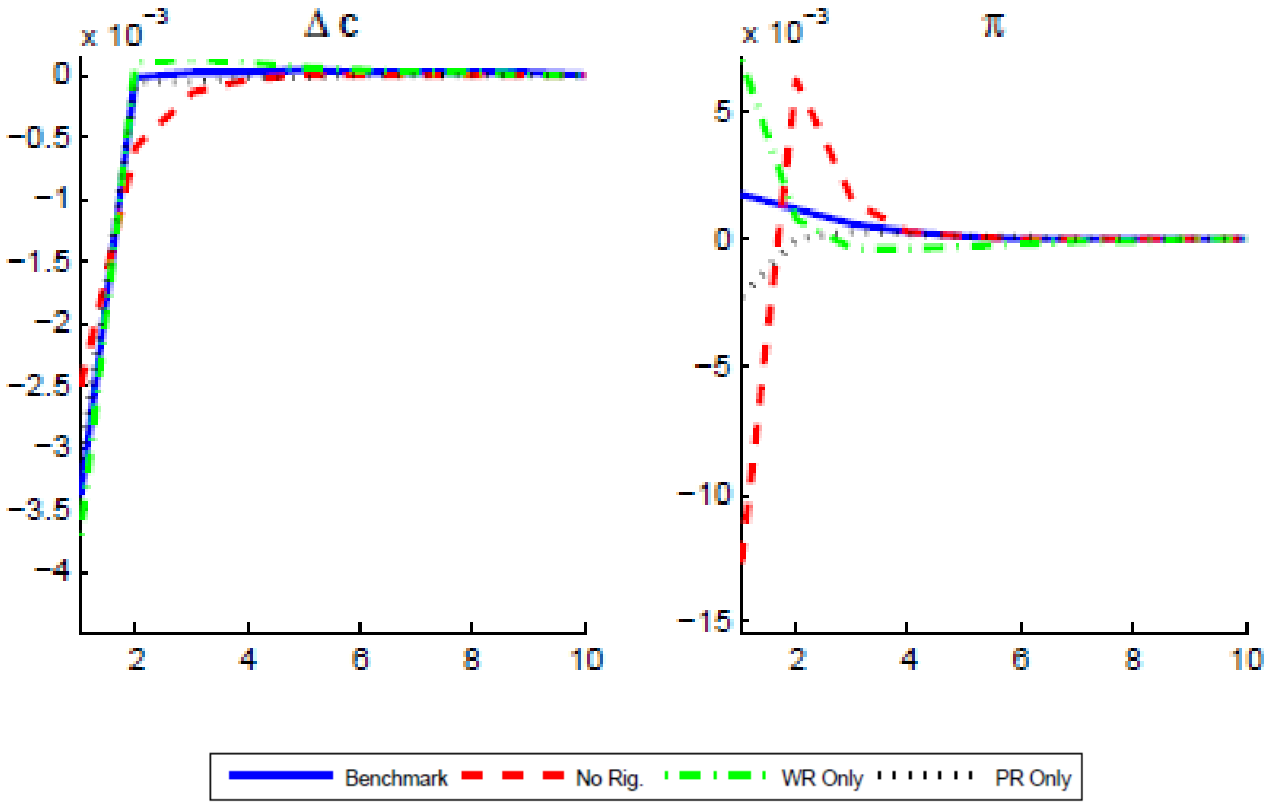

Can only happen if monetary policy is too tight.

How Robust Are the Conclusions?

Authors draw four main conclusions:

1. Wage rigidities are crucial for upward-sloping yield curve
2. Risk premia are due to *permanent* productivity shocks
3. More reactive policy rule increases inflation risk premium
4. Nominal rigidities increase correlation between real, nominal bonds

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But results in Rudebusch and Swanson (2012) contradict the first three of these.

Summary of Comments

1. Give more motivation for DSGE bond pricing
2. Take U.K. real yield curve data more seriously
3. Model is relatively complicated for macro-finance
4. Many of the conclusions seem to be model-specific