Economics 390
Topics in Macroeconomics
(11/4/2013)

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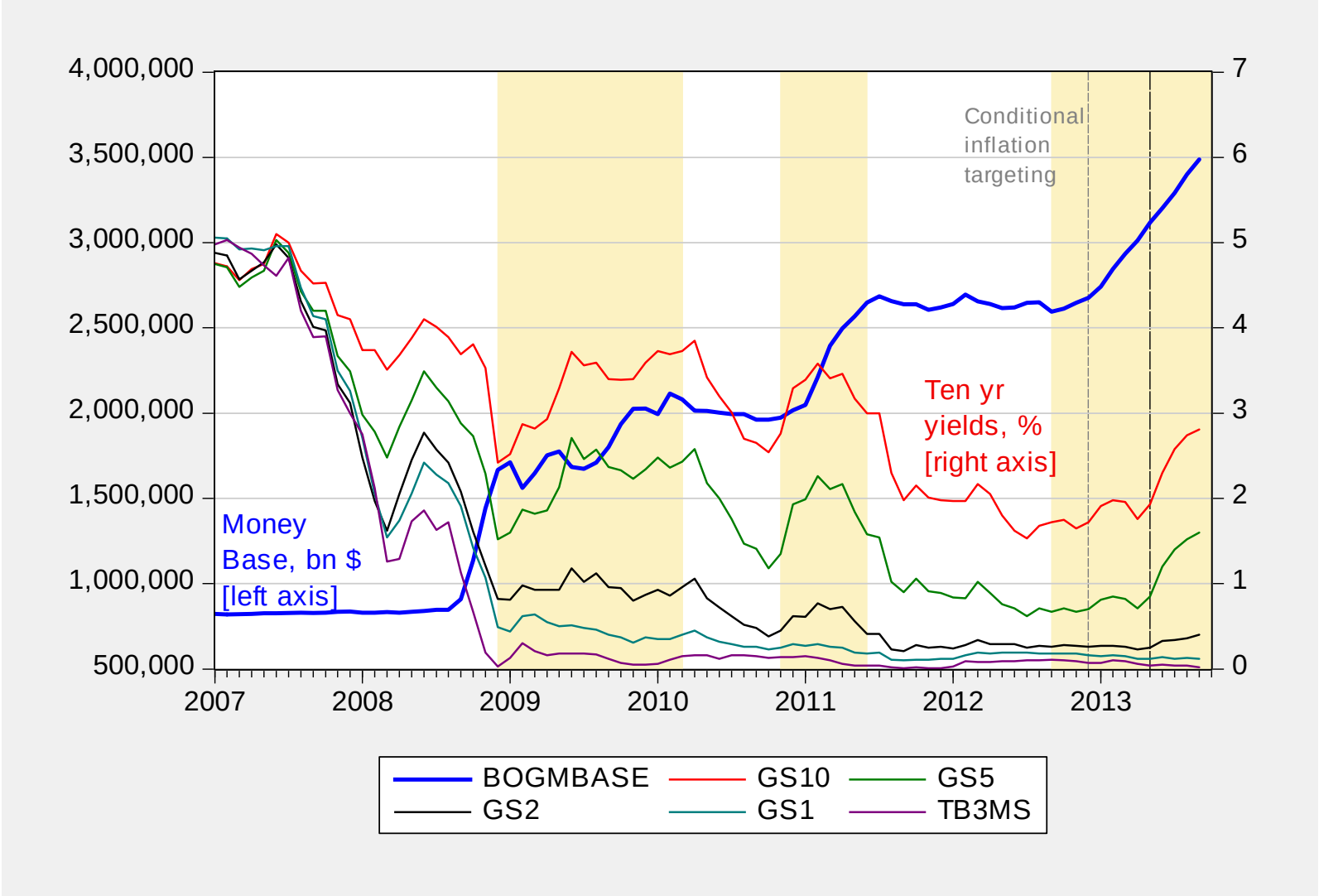
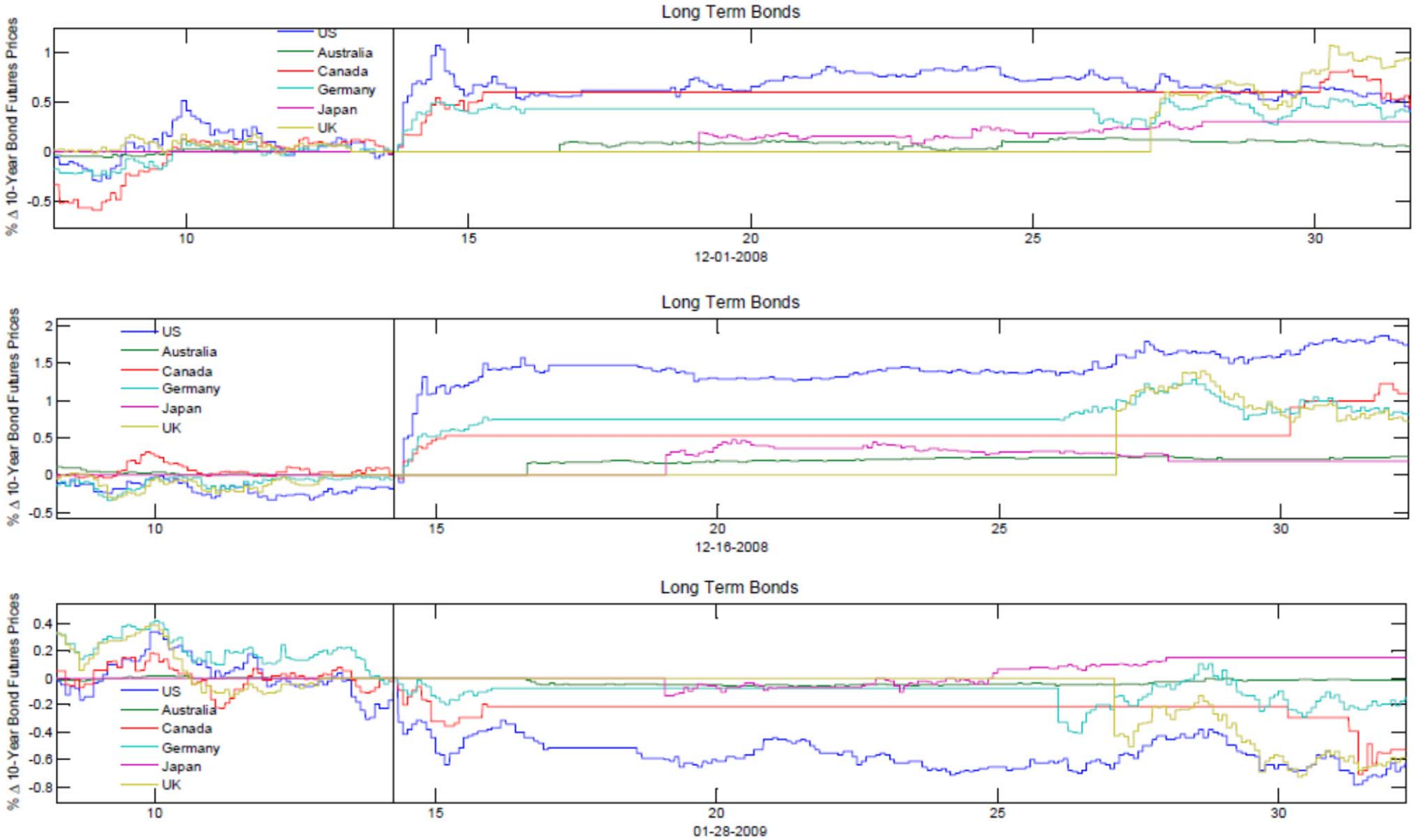
UW Madison
Fall 2013

Thinking More about UMP



Some Events (LSAP1/QE1)



Source: Neely, 2010

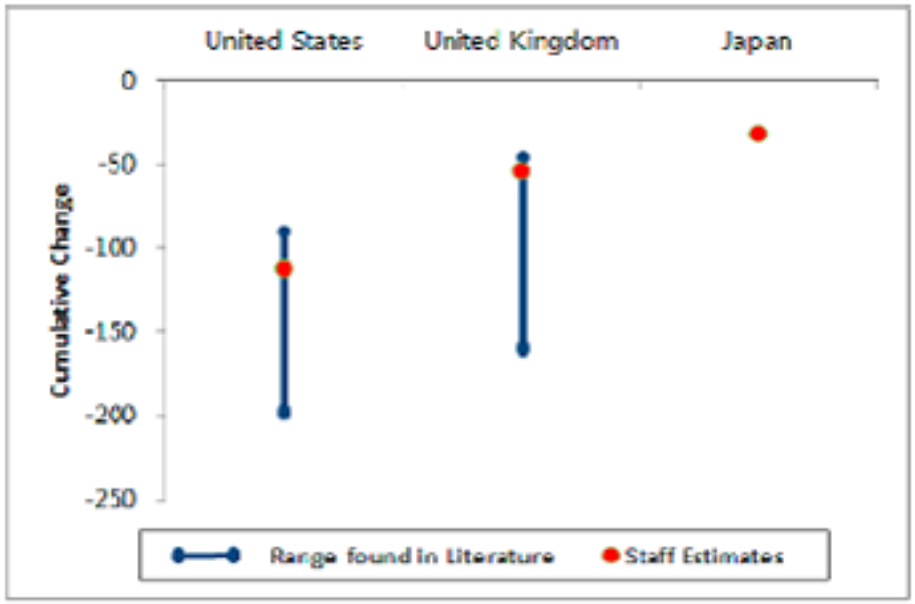
Effects Statistically Significant	Magnitude 1/ 2/	Main Channels	Events	Method	Authors
	U.S. LSAP1				
Yes	50–100 bps (10-yr)	Portfolio Rebalancing	LSAP1 (eight events) 2/	Model-based Event Study (1-day window)	Gagnon et al (2011)
Yes	22–48 bps (10-yr)	Portfolio Rebalancing		Regression Analysis	
Yes	20 bps (10-yr)	Signaling little importance Prepayment Risk Channel	LSAP1 (five events)	Event Study (2-day window)	Krishnamurthy and Vissing-Jorgensen (2012)
Yes	42–147 bps (MBS or agency debt) 199 bps (MBS or agency debt) cumulative				
Yes	37 bps (10-yr) 94 bps cumulative	Signaling	LSAP1 (eight events)	Model-based Event Study (2-day window)	Bauer and Rudebusch (2011)
	56 bps (10-yr)	Portfolio Rebalancing			

Source: IMF, “Unconventional…” (2013)

Effects Statistically Significant	Magnitude 1/ 2/	Main Channels	Events	Method	Authors
Yes	53 bps (10-yr) 89 bps cumulative	Signaling	LSAP1 (eight events)	Model-based Event Study (2-day window)	Christensen and Rudebusch (2012)
Yes	29 bps (10-yr)	Portfolio Rebalancing			
Yes	32 bps (10-yr)		LSAP1 and LSAP2	Model-based (weekly data)	Hamilton and Wu (2011)
	U.S. LSAP2				
Yes	8–10 bps (10-yr) 16–20 bps cumulative	Signaling	LSAP2 (three events) Jan 1990– Jan 2011	Event Study	Krishnamurthy and Vissing-Jorgensen (2012)
Yes	A fall in 10-yr yields of 8–10 bps	Safety Channel			

Source: IMF, “Unconventional…” (2013)

Figure 1. Cumulative Effects of Bond Purchases on 10-Year Government Bonds



Sources: Literature (see Appendix Table 2), Bloomberg and staff calculations. Note, some estimates for the range are derived visually from graphs. Some papers study changes in bond prices over a two-day window following announcements; staff estimates consider a one day window.

Source: IMF, “Unconventional…” (2013)

CE or Duration Commitment?

$$i_{nt} = \frac{(i_{1t} + i^{e}_{1t+1} + \ldots + i^{e}_{1t+n-1})}{n} + rp_{nt}$$

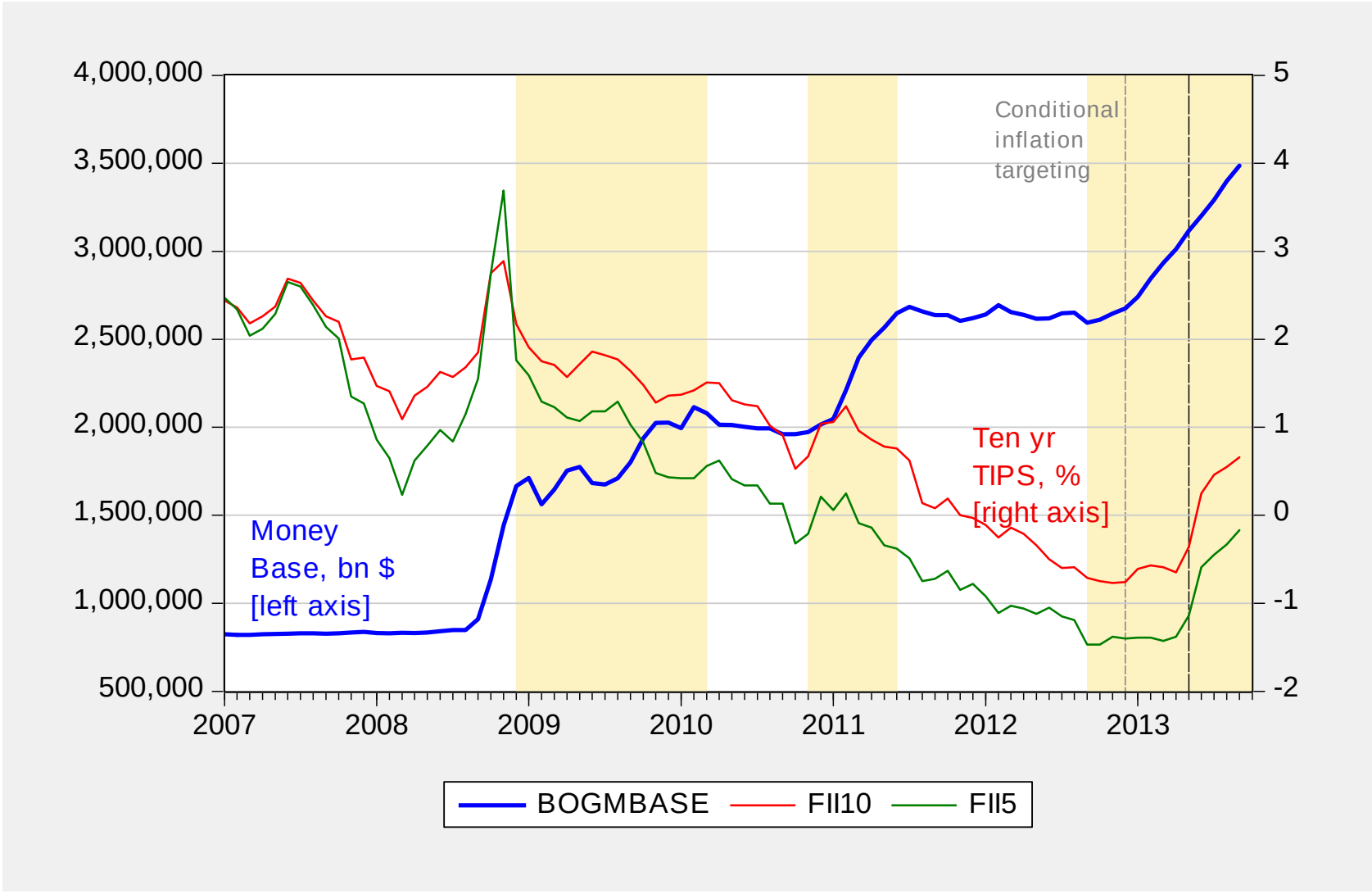
- Purchases of long term (Credit Easing) Treasurys should drive down rp_{nt}
- Alternatively, Duration Commitment can over the short to medium affect i^{e}_{1t+i} over short to medium term
- The above is partial equilibrium – what if inflation expectations rise? Then i^{e}_{1t+i} might rise over longer term

Real Interest Rates

$$r_{1t} \equiv i_{1t} - \pi^{e}_{t+1}$$

$$i_{1t} \equiv r_{1t} + \pi^{e}_{t+1}$$

- If QE/CE signals/causes future higher inflation, then the future nominal short rate could rise
- Higher future nominal rates could then cause higher nominal long rates
- Check by inspecting real yields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2007
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2010
2011
2012
2013
Conditional
inflation
targeting
Money
Base, bn $
[left axis]
Ten yr
TIPS, %
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BOGMBASE
FII10
FII5