Discussion of "Expectations and Investment"

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What the Paper Does

- Advocates for the use of survey data on expectations in macro modeling
- Deploys a nice data set on CEO profit expectation to study corporate investment in Q model
- Shows that the CEO profit surveys when input to the model track the investment cycle well
- Shows that the surveys fails conventional RE test
- Interprets rejection of RE restrictions for surveys as a rejection of RE not an indictment of surveys
- Suggests that understanding investment requires abandoning RE

Should macro economists use survey data to proxy for expectations? Yes

- The original critique against using survey data (Prescott) too extreme for many real world applications
- Ironically survey data can be most useful when actual or potential regime change/Lucas critique/Peso problem is important
- Remember 'model consistent' expectations require correct specification of the model!
- Statistical models to proxy for expectations don't work well with regime dependence (pre –post Volcker US inflation; Hamilton switching for gdp) and they are terrible if the regime is unobserved and must be inferred

Model and Specification

Textbook Q model with quadratic adjustment costs

$$\frac{I_t}{K_t} = \left(a - \frac{1}{b}\right) + \frac{\beta}{b} \frac{\mathbb{E}_t\left[\sum_{s \geq t+1} \beta^{s-(t+1)} \Pi_s\right]}{K_{t+1}}$$

Don't have data beyond year on expected profits so estimate instead

$$\frac{I_t^p}{K_t} \approx \theta_0 + \theta_1 \frac{\mathbb{E}_t(\Pi_t)}{K_t}$$

Can justify this if firms use rule of thumb that profits are AR(1) so entire present value is function of expected profits next year.

Have degree of freedom here since don't impose rational expectations. Θ_1 is treated as free parameter
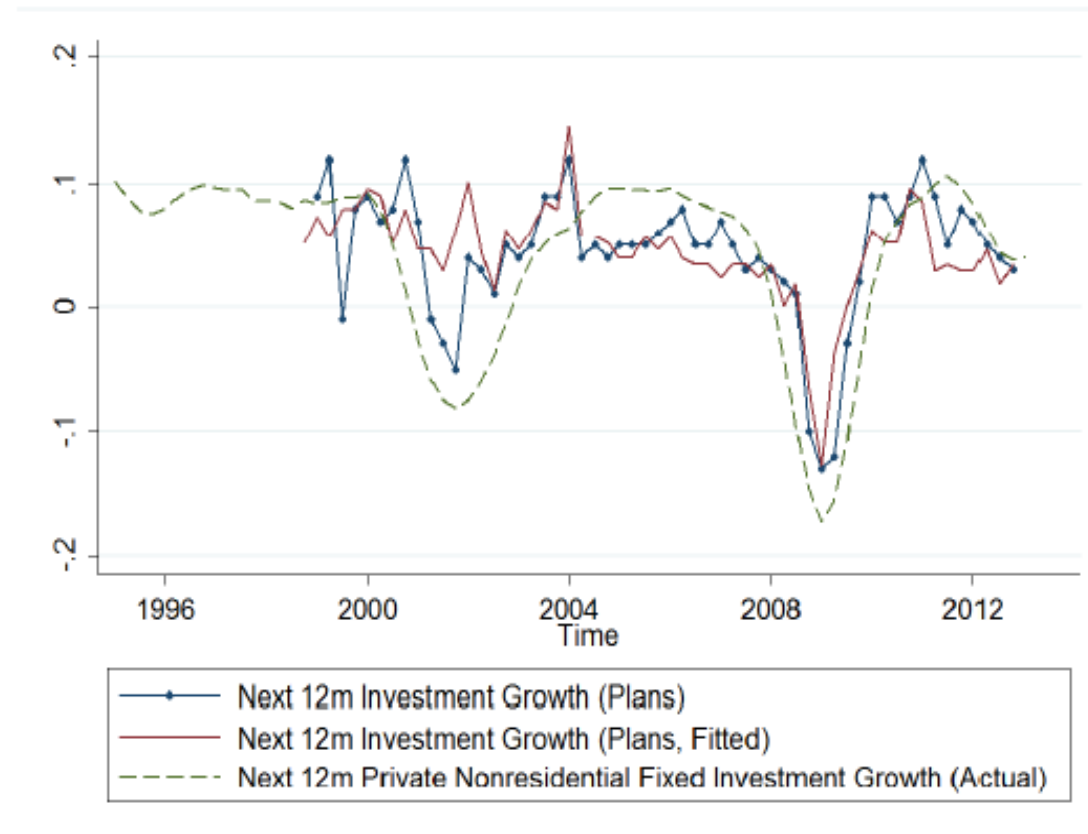
Who Needs Econometrics?

Panel A. CFO Earnings Expectations and Investment Plans
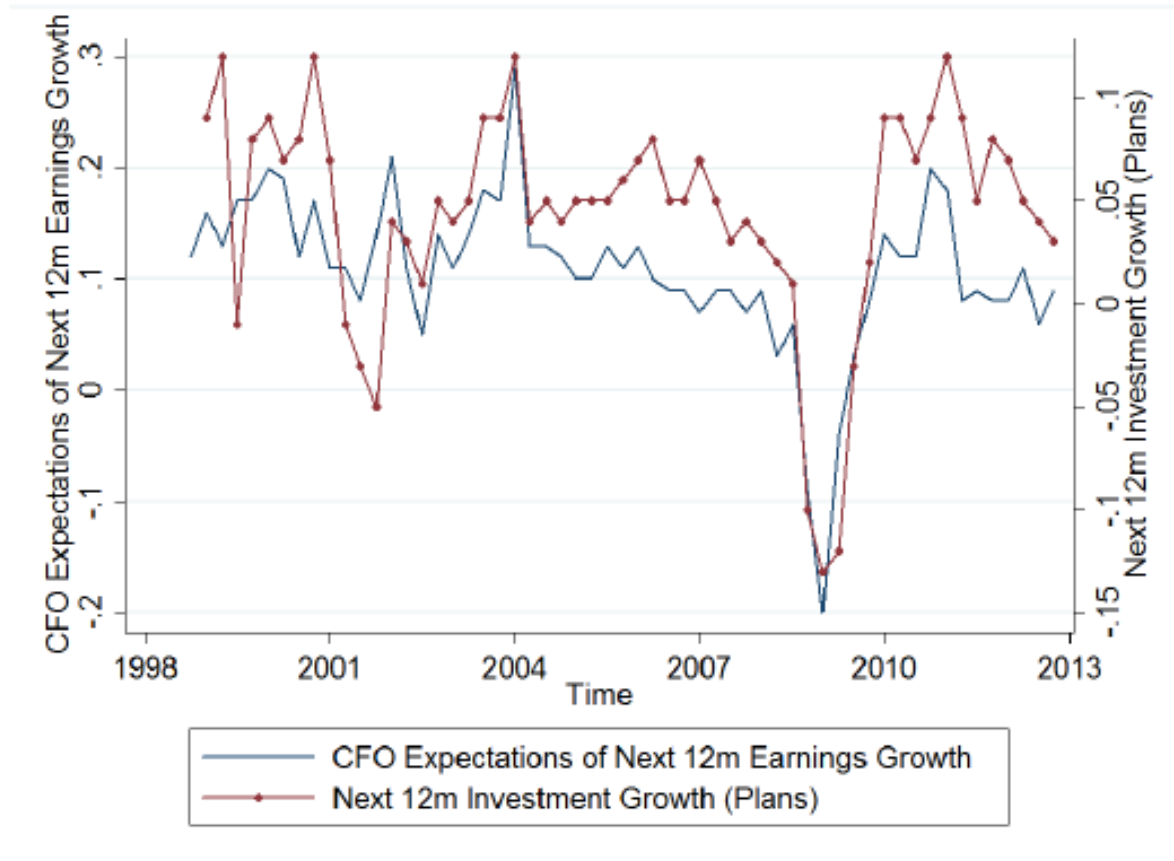
Investment Plans Track Investment

Panel B. CFO Earnings Expectations, Investment Plans, and Realized Investment

Next 12m Investment Growth (Plans)
Next 12m Investment Growth (Plans, Fitted)
Next 12m Private Nonresidential Fixed Investment Growth (Actual)

For those Who Need Econometrics

	Planned Investment Growth in the Next Twelve Months						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
CFO Expectations of	0.6313	0.5959	0.5869	0.4235	0.4853	0.5997	0.5435
Next 12m Earnings Growth	(9.39)	(11.65)	(11.40)	(7.21)	(12.83)	(11.79)	(9.78)
Q			0.0532				
			(1.68)				
Past 12m Agg. Stock Returns				0.1082			
				(3.64)			
Past 12m Credit Spread Change					-0.0352		
					(-2.26)		
Log(D/P)						0.0271	
						(0.62)	
cay							-0.9700
							(-1.86)
Past 12m Asset Growth		0.2181	0.1461	0.0784	0.2643	0.2481	0.2536
		(3.97)	(2.39)	(1.89)	(5.88)	(2.97)	(3.92)
Observations	56	56	56	56	56	56	56
R-squared	0.616	0.660	0.672	0.741	0.685	0.663	0.674

t-statistics in parentheses. Standard errors are Newey-West with twelve lags.
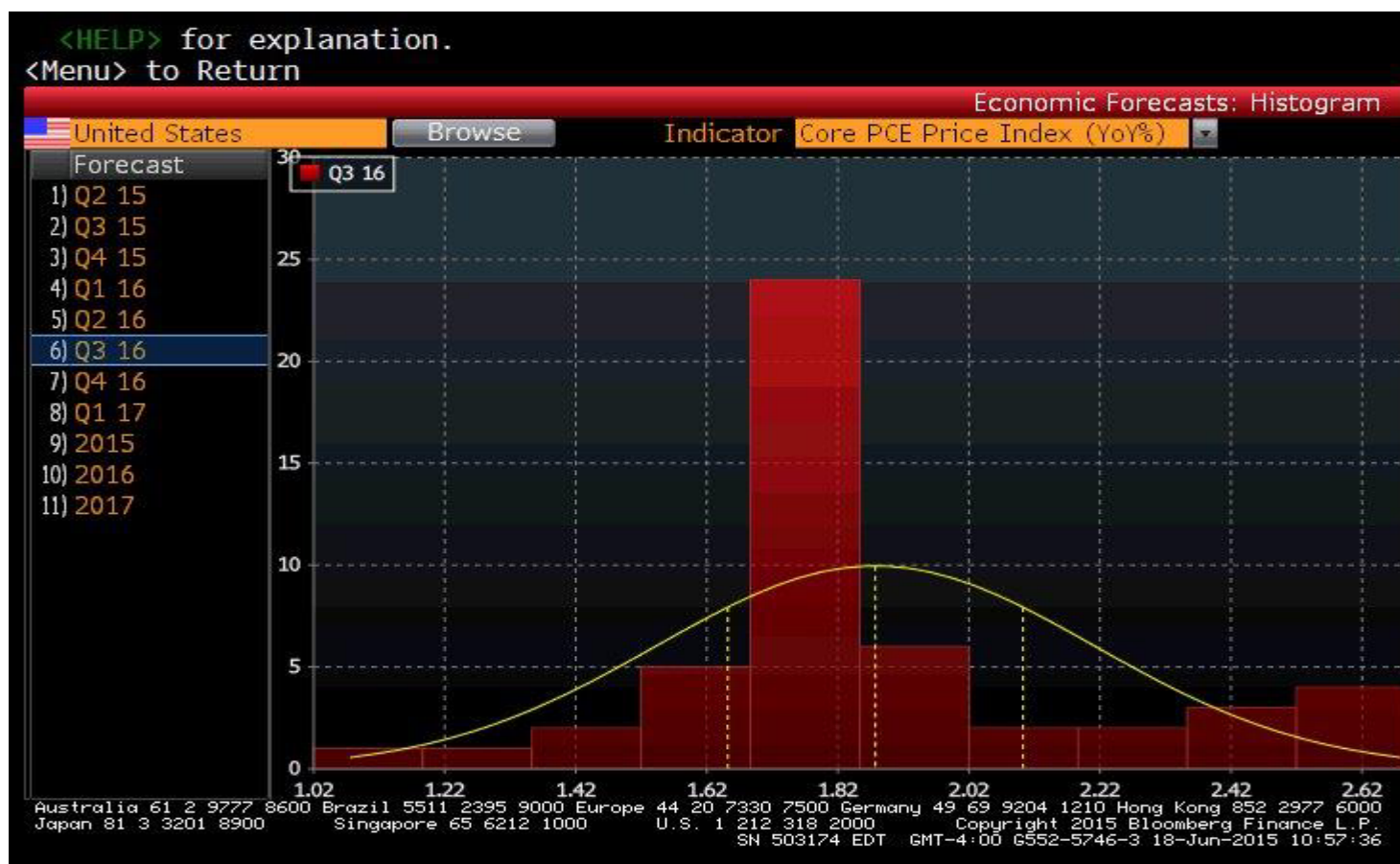
Index of US Macro Surprises and Change in Bond Yields
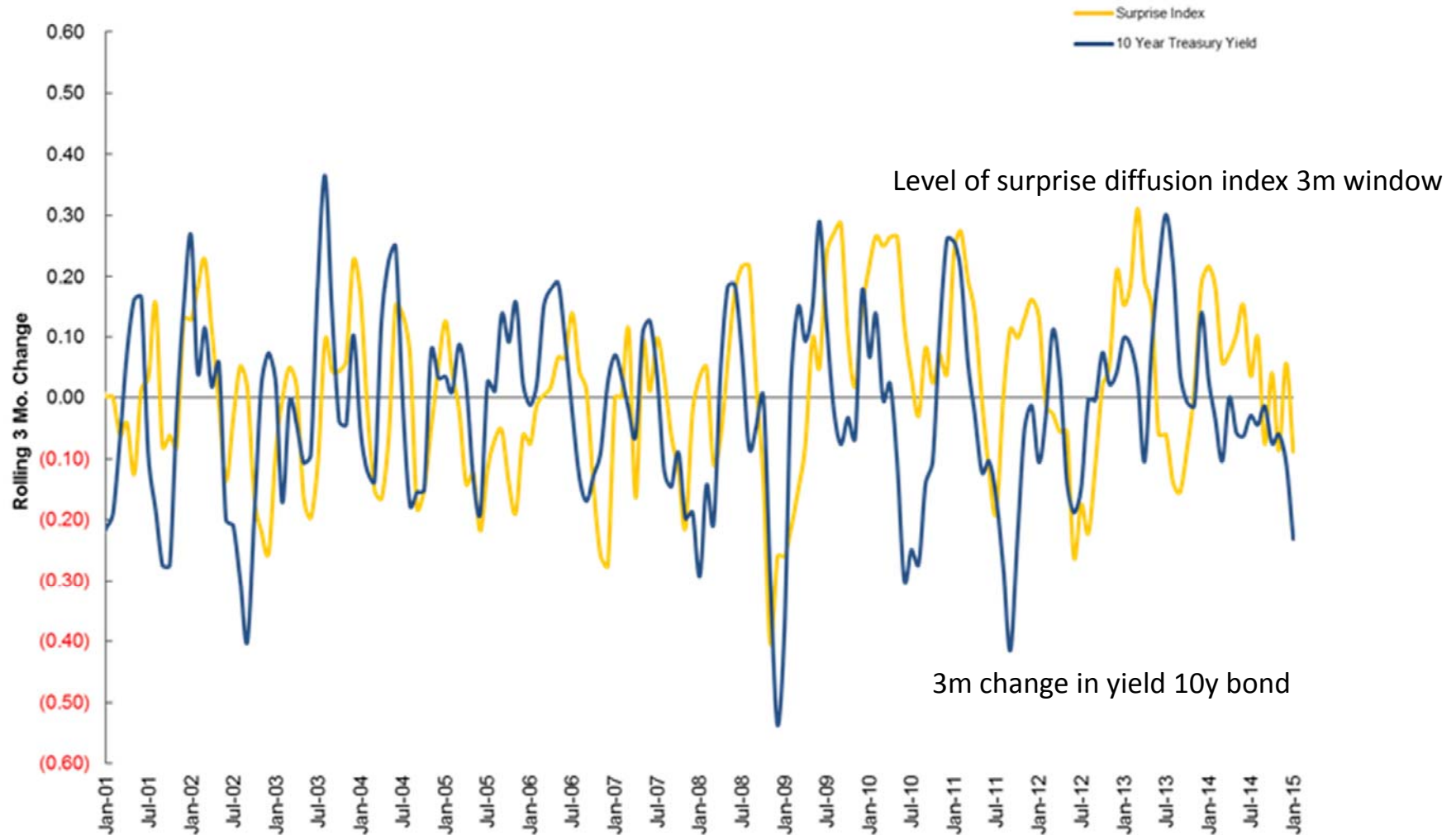
Clarida, "Eyes on the Prize" The International Economy, Winter 2012

Potentially Useful Information in cross sectional distribution of survey expectation

Histogram of Bloomberg panel expectations for 2016 Core PCE Inflation

Mankiw, Reis, Wolfers, "Disagreement about Inflation Expectations",
NBER Macro Annual 2003

State of the Art

Expectations as a Source of Macroeconomic Persistence: Evidence from Survey Expectations in Dynamic Macro Models

Jeff Fuhrer

"Overall, the results suggest that much of the persistence in aggregate data is better accounted for by slow-moving expectations, rather than by habits, indexation and auto correlated structural shocks."

Abstract:

This paper finds that persistence intrinsic to expectations may explain a sizable fraction of the persistence in aggregate macroeconomic time series. The paper endogenizes survey expectations in an array of standard macroeconomic relationships and in a DSGE model. The use of survey measures of expectations—for near-term inflation, long-term inflation, near-term and long-term unemployment, and short-term interest rates—improves performance along a variety of dimensions. Survey expectations exhibit strong correlations to key macroeconomic variables. Using a minimal set of assumptions, those correlations may be given a structural interpretation in a DSGE context. Including survey expectations helps to identify key slope parameters in standard relationships, and nearly eliminates the need for lagged dependent variables in structural models that is often motivated by indexation for prices and habit formation for consumption. Including survey expectations also obviates the need for autocorrelated structural shocks in the key equations. The paper discusses the modeling complications that arise once the rational expectations assumption is abandoned, and proposes methods for endogenizing survey expectations in a general equilibrium macro model. Overall, the results suggest that much of the persistence in aggregate data is better accounted for by slow-moving expectations, rather than by habits, indexation and autocorrelated structural shocks.

Forthcoming JME