

The Fed's Response to Economic News Explains the "Fed Information Effect"

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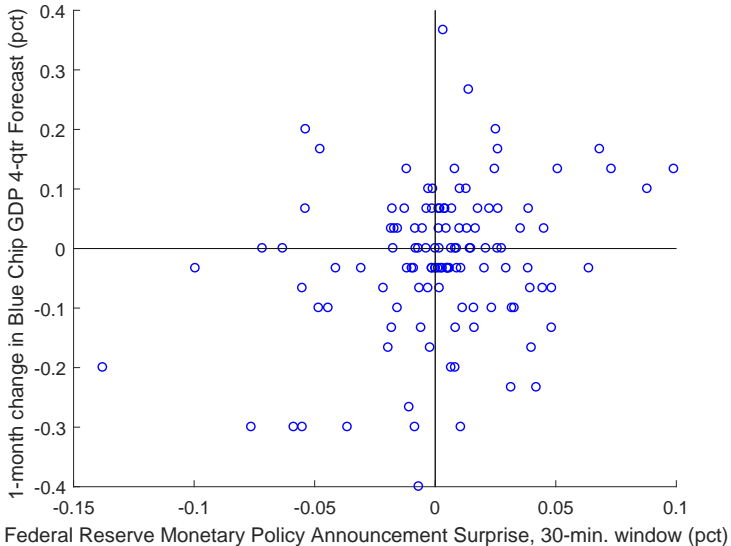
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- but empirical work sometimes estimates $\theta > 0$

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- the Fed is a better economic forecaster than the private sector
- when the Fed lowers interest rates, private sector infers that economy must be worse than they thought
- so private sector *lowers* rather than raises GDP forecast

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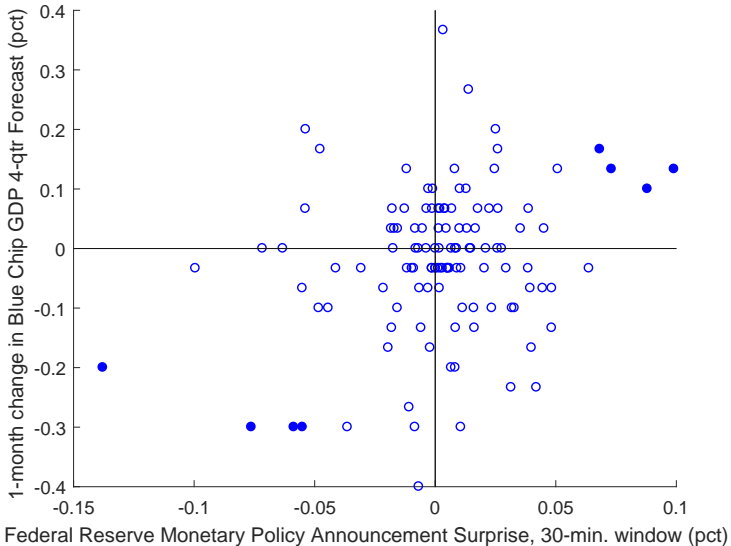
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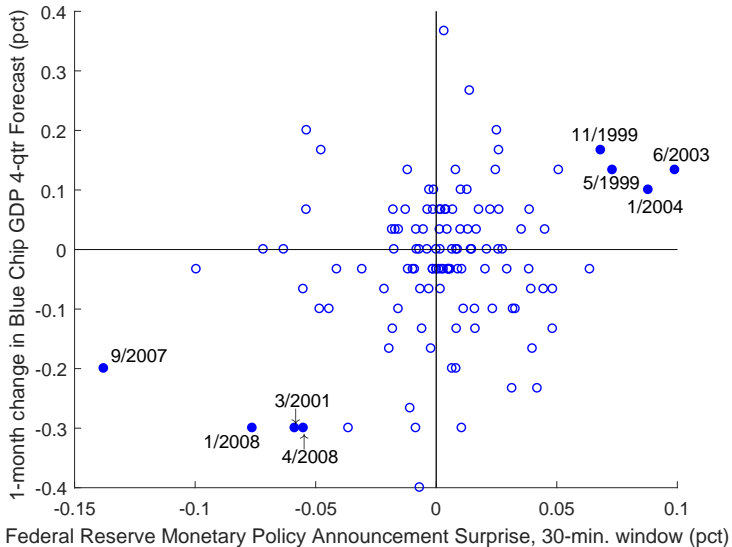
See:

- Romer and Romer (2000 AER)
- Campbell, Evans, Fisher, Justiniano (2012 BPEA)
- Nakamura-Steinsson (2018 QJE)

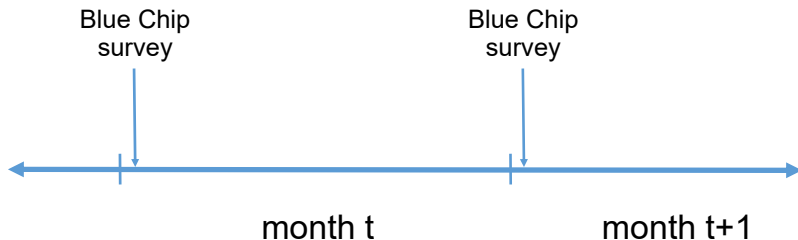
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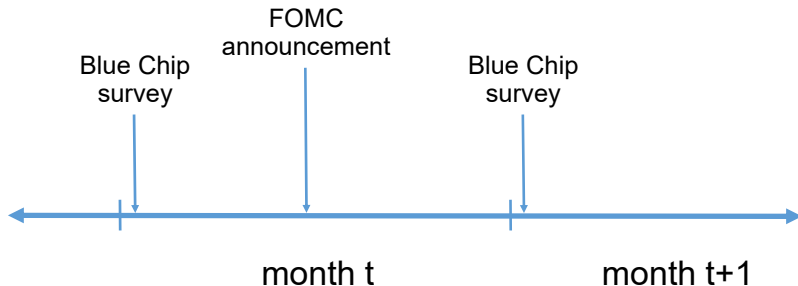
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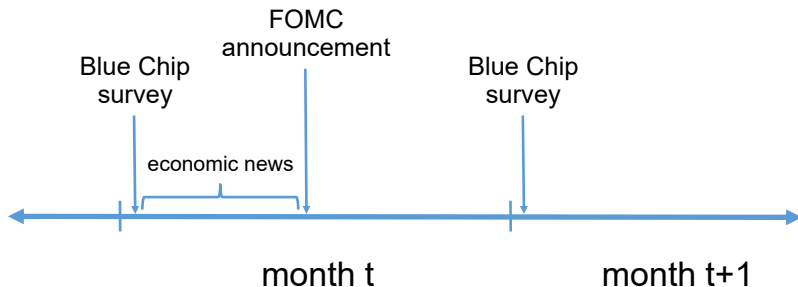
The “Fed Response to News” Channel



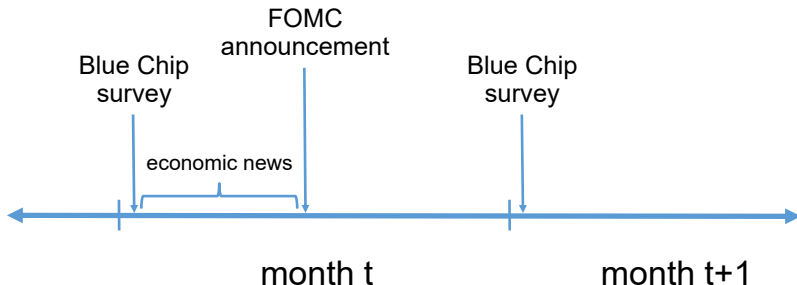
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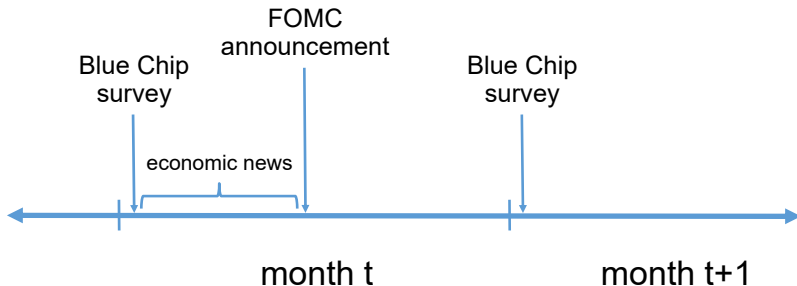
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Estimates of θ are biased if economic news is correlated with mps_t

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 - nonfarm payrolls
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- under standard FIRE assumption, mps_t should be unpredictable: $\alpha, \beta = 0$ (even if Fed Information Effect is true)
- but if markets don't know Fed's monetary policy rule, then mps_t can be correlated with economy *ex post*, resulting in $\beta \neq 0$ (see also Cieslak, 2018 RFS; Schmeling et al., 2020)

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Economic news measure:

MP Surprise measure (1) Nonfarm payrolls (2) Brave et al. index (3) $\Delta \log$ S&P500

Full sample: 1/1990–6/2019, including unscheduled announcements

fed funds rate	.095*** (.035)	.017** (.0067)	.217*** (.084)
fwd guidance path	.024 (.024)	.013*** (.0046)	.187*** (.058)
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Bottom line:

- $news_t$ is correlated with mps_t
(which will cause omitted variable bias in "Fed Information Effect" regressions)

Economic News Drives Out “Fed Information Effect”

Repeat “Fed Information Effect” regressions with omitted news variable included:

Campbell et al. (2012):

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	(1) Campbell et al.		(2) Nakamura-Steinsson
Blue Chip forecast	fed funds rate “target factor”	fwd. guidance “path factor”	first princip. comp. “MP surprise”

Full sample: 1/1990–6/2019, including unscheduled announcements

Excluding omitted news variable:

Real GDP growth	0.16 (.171)	0.14 (.223)	0.33 (.296)
Unemployment rate	-0.16 (.109)	-0.24* (.142)	-0.39** (.188)

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Stock Market Response to FOMC Announcements

Consider high-frequency stock market response regressions:

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- information effect prediction is ambiguous for β, γ, θ
 - but Jarocinski-Karadi (2019), Cieslak-Schrimpf (2019) argue β, γ, θ should be > 0 if information effect is substantial

Stock Market Regression Results

(1) Campbell et al.

fed funds rate
“target factor”

fwd. guidance
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(2) Nakamura-Steinsson

first princip. comp.
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Full sample: 1/1990–6/2019, including unscheduled announcements

$\Delta \log \text{S\&P500}$

−4.37***
(0.45)

−2.52***
(0.54)

−7.82***
(0.72)

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Replication samples: 1/1990–6/2007 for CEFJ, 1/1995–3/2014 for NS

$\Delta \log \text{S\&P500}$	-4.24*** (0.46)	-2.05*** (0.65)	-5.95*** (1.03)
------------------------------	--------------------	--------------------	--------------------

Full sample: 1/1990–6/2019, excluding unscheduled announcements

$\Delta \log \text{S\&P500}$	-3.11*** (0.64)	-3.14*** (0.51)	-6.53*** (0.82)
------------------------------	--------------------	--------------------	--------------------

Full sample: 1/1990–6/2019, excl. unsched. announcemts. and 7/2008–6/2009

$\Delta \log \text{S\&P500}$	-2.81*** (0.64)	-3.02*** (0.51)	-6.03*** (0.78)
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Survey of Blue Chip Forecasters

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- emailed them a survey asking how they revised their GDP, unemployment, and inflation forecasts in response to:
 - federal funds rate decision
 - FOMC statement
 - interest rate “dot plot”
 - Summary of Economic Projections (SEP) forecasts for GDP, unemployment, and inflation

Results from Our Survey

36 responses out of 52 possible:

	Response to hawkish surprise in:		
	fed funds rate	FOMC statement	“dot plot”
Do not revise GDP forecast	13	16	14
Revise GDP forecast downward	18	15	18
Revise GDP forecast, but direction depends on other factors	5	5	4
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- The last row contradicts “Fed information effect”

Results from Our Survey

	Response to FOMC's Summary of Economic Projections (SEP)
Do not revise GDP forecast	24
Revise GDP forecast towards SEP forecast, if substantially different	4
Use SEP to help forecast fed funds rate, effect on GDP standard	3
Use SEP to help forecast fed funds rate, effect on GDP depends on other factors	1
Revise GDP, but revision depends on multiple factors	2

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Use SEP to help forecast fed funds rate, effect on GDP depends on other factors	1
Revise GDP, but revision depends on multiple factors	2

- If there was a Fed information effect, we ought to see it here

Typical Quotes from Our Survey

“I trust my outlook more than the Fed’s. . . Their forecasting ability is pretty poor.”

“My view is that the Fed does not have superior information. . . The FOMC forecast tends to be off by a lot.”

“We tend to find that the Fed has no better information advantage over economists like myself. . . In fact, what we have found many times is Fed forecasts (per the SEP) tend to be somewhat stale.”

“I would be responding to the change in the policy outlook, not to the possibility that the Fed ‘knew’ something that I did not.”

“We would not be updating our forecasts because we think the SEP forecasts are good. But if we think they signal something about future policy and portend a market shock then we might change some forecasts in anticipation of that.”

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Also in the Paper

In the paper, we also:

- 1 show Blue Chip and Fed Greenbook forecasts are very similar
- 2 conduct extensive robustness analysis of empirical results
- 3 provide simple model of private-sector learning about Fed's monetary policy rule to model "Fed Response to News" channel
- 4 using model, show high-frequency monetary policy surprises can be used:
 - in high-frequency regressions to estimate effects of monetary policy
 - in high-frequency identification of VARs (but some adjustment here can be necessary)

Conclusions

- 1 Economic news is an omitted variable in “Information Effect” regs.
 - “Fed Information Effect” regressions suffer from omitted variable bias
 - including the omitted variable drives out “Fed Information Effect”
- 2 Stock market responses to FOMC announcements do not support “Fed Information Effect”
- 3 Our survey of Blue Chip forecasters contradicts “Fed Information Effect”
- 4 Evidence for “Fed Information Effect” is weak
- 5 We propose alternative “Fed Response to News” channel that can explain all of the empirical findings