

Preparing Draft for Susanto of Sept 15  
w/ estimation results

11 Sept 2020

Bob King meeting

Paper & show: will range & topics & tools

↳ challenging to outsiders

1. too many things going on → what are cool features?

↳ big challenge for JM → at getgo, ID key findings & results

2. graphs at beginning

SPF

behavior of relevant price indices

→ to make us believe that simple KF rules  
can't capture any richness → worrin!

! See recording in presentations > dissertation-workshops >  
feedback-sept 2020 > Bob King discussion

↳ Actually now it's just no BC-Research  
to/c GitHub had committing issues.

19 Sept 2020

- ① The key difference to Bordalo et al's diagnostic E is that  $\theta$  is static here
  - in other words, the extent to which expectations exaggerate the representative feature is a constant and is policy-invariant
  - vs. the key feature of the anchoring expectation is that the distortion in E away from RE is dynamic & depends on policy
  - an exeq gain scheme would be a closer analogue to Bordalo et al b/c policy invariant
- ② What we need to show in data is that the responsiveness to fe itself is time-varying.

## Ryan meeting

16 Sept 2020

- 1) Should I submit all materials and Casey submits references?  
Yes.
- 2) Should I always send you reminders of deadlines?  
No.
- 3) Should I always send you all the tailored materials?  
No.
- 4) Micro, mechanics, finance, business plans → no macro?
- 5) Hollowing out of the middle: nothing between Harrowd and Chengdu U
- 6) Go this year? Comparison of # to last year

- 1) Slippage: Casey is a designee → she submits the letters you do everything else

Some schools won't let you designate a designee → put down advisors' info

- They get the email, fwd to Casey
- Casey uploads letter.

Not confirmed that that's the approach this year.

- 2) Historically Ryan's letter is done Nov, first week.

Earlier deadlines need communication

- 3) Cover letter — only pro forma! No need to send CV can send. Research statement / Teaching statement  
→ send!

Numbers: not empty markets: not a little # of open posis.

Apply anywhere you would go. (in some state of the world)

Hertie - don't know → look at faculty: how big?

↳ quite large, few macro

• areas of expertise

↳ business schools: fewer macro

• std. (whether  
got edn?)

more teaching

pay more

Mannheim - doesn't know but pretty good

U B Paris - -11-

4) Baseline: heterogeneity tends to be the same as on my list.

5) Hollow out: seems right

6) About now is when you start paying a cost for pulling out  
of the market.

Real cost: when you get interviews from senior places  
and decline.

Carlos III Madrid good place

Dallas Fed good

Banks of Mex has hired interesting ppl

SF normally don't hire rookies (i.e. new Phds)

FNCB WIB

Check Carbondale (more than 6 contracts?) maybe not worth it.

CB Chile interesting

Alan Finkelman Shapiro is now at Tufts.  
ah yes, he is Ryan's mentor and  
has worked

U Surrey Postdoc → Alan Finkelman Shapiro w/  
several  
↳ Ryan knows so if you Blgpl  
could imagine it

Samford - serious place?

SSE postdoc interesting

Oxford-Nuffield interesting

He doesn't know the rest

Postdocs will help clear the market this year  
↳ pay attention to those!

Sanjay Chugh  
Fabio D'Amico  
Federico  
Mandelman

## Green Law - Miao Discussion

18 Sept 2020

- Today: why not  $\hat{A}_t, \hat{B}_t$ ?  $\rightarrow$  b/c You update based on  $f_t$  which is realized conditional on  $\hat{E}_{t+1}^2$
- Distortion?  
they coincide
- Would be good to state ass. on  $\hat{E}^1$  e.g. does it fulfill LIE etc?
- Claim: "Endogenous" — it's not, microfoundation??  
 $\hookrightarrow$  it allows the public to adapt its  $E$ -formation to environment
- "Anchored" def not clear in paper
- fc bad notation b/c one variable
- "Expected mean inflation" is "long-run  $E$ "  $\rightarrow$  confusing terminology

Main complaint: exposition  
notation  
structure  $\rightarrow$

Ryan: def: might be helpful to think of metric of anchoring (continuous quantity of anchoring)

Bob:

Fed policy need to be endogenous

Susanto:

Bob's question:  $\pi^*$  is fixed

Suppose Fed wants to change the target

Pablo:

PC flat

Fabian Windler GLMM feedback

22 Sept 2020

lot of work to do:

- endogenous gain: what is it exactly
  - Marat & Nicolini has done that

- 1)
- shouldn't be a detection story
    - too much intro (7 min is too much)
    - . what the paper does
    - . why it's interesting
    - . main results

↳ spp graph wasn't helping b/c E are above 2.5%

Maybe allude to volatile E being a bad thing in general

"Apparently the Fed cares about the stability of LR-E  
Here is a model that explains why."

Under RE it's fine

But here no.

↳ For an interview, way too long intro.

↳ 2 min: stability of LR-E.

## 2) Calibration

Need to spend time on it

especially if you wanna talk about welfare.

↳ <sup>show</sup> volatility of  $\alpha$  &  $x$  in model  
just a reality check.

- Degree of anchoring better than binary
- Clarity of concepts
  - forecast error

↳ Send him draft.

## BOS FED press

22 Sept 2020

- What
- Vaidhali : Cyclic planning vs anchoring  
↳ volatility due to non-RE
- → back out response in 10-year expectation from LR-E.
- Philippe : ↓ in LR-E not engineered by CB  
↳ consensus :  $\beta$  (LR-E to fe)  
met doesn't say that it was a policy mistake  
PCE is  $2\%$  then CPI is  $2.5\%$   
GSOE tend to anchor in CPI

## Ryan meeting after

- 1) 2 versions of talk
  - SLAE
  - Boston Fed
- 2) focus on making contribution clear early  $\Rightarrow$  comes too late

- 3) 3 candidate intros 2 pages
- Powell
  - anchored
  - Graph SPF & nothing reg
- $\Rightarrow$  can't do all

Need to do one to not take 75 min

SPF: if just new 2% frag,  
then  $E$  shouldn't respond to  
 $f_C$

Rolling reg: do overlapping windows  
and then plot it as a pic.

$\curvearrowleft$  If that works out, that's the best intro

Get to "this project is under 9 minutes"

### Slide 6. Interpretation of ( $\hat{\beta}$ )

If I put in  $\overline{W}$  on RHS?

What does the reg mean/say?

$\hat{\beta}_1$  isn't a structural coeff! It's a stylized fact.  
 $\hookrightarrow$  I'd put diff RHS vars depending on model  
of  $E$ -formation. In RE  $\hat{\beta}_1 = 0$ .

60% - 40% that the rolling thing belongs in the paper

- Philippe's question on unanch:
- $\pi^*$  has a shock on it
- w/incomplete info, since  $\pi^*$  moved, ppl look for interest rate etc to find out  $\pi^*$ 
  - ↳ look at Philippe's work
- ⇒ what they can't capture is the time-varying recognizability of beliefs to outcomes which those models can't answer
  - "and I know you've done some great work in that"
- Lit slide
  - point to headings
  - point to 2-3 papers
  - 45 sec
  - allow ppl to ask questions but get out fast
- "My model of expectations formation"
  - ↳ acknowledges that there are alternatives

- $\hat{E}$  instead of  $E$   
 $s_t$  are exog. states  $\rightarrow$  that's why  $h$  is known  
 Could be that (g) is on a separate slide
- RE  $a=0$  didn't get too much out of it  
 $\hookrightarrow$  don't post it : be ready to answer why  
 agents est. an intercept
- slide 18 - Getting to it is important, fast! (15 min)  
 $k_t = g(\cdot)$  is your paper.

Endog. gain models aren't all over the place

- my contrib is to think more generally  
 about  $g$  and analyze opt policy  
 in this context.

Slide 17: "Alternatives for the gain"

- my stuff is the third bullet point-
  - ppl have thought about MP for exog & endog gain
  - ppl have thoughts of endog / general gain  
 but not policy
- $\hookrightarrow$  maybe list them

- Calibration

no need to mention  $p_j$  at that point

0.98 "you're right it's on the high end. I can change that".

- Results presented nicely.

- Marketing:

"that's a good question"  $\rightarrow$  don't say it all the time

- Welfare effects

distance not units

$\rightarrow$  consumption equivalent

that's the one that's interpretable as a number

$\rightarrow$  it will be pretty small, connected

w) the magnitudes in the lit on

bns. cycle costs (Lucas)

- Last & most important:

unclear: 3 distinct policy disruptions

- 1) P. 31 "kill, kill, kill!"
- 2) lower Taylor rule
- 3) "giving markets what they expect" idea
  - ↳ they aren't contradictions but they don't overlap either.

Could use the same g in the TR-version  
 ↳ or: act as if ppl expect the TR & implement optimal policy.

- Miao:  $\hat{E}$ -heat → need to state that LIE holds  
 ↳ state in paper, not in prez  
 "This [it] is a little thin on the properties of  $\hat{E}$ , but I need LIE so I assume it"

Endog gain

"g isn't microfounded, but it's very generic  
 i.e. very flexible → says that people can  
 depend on environment → but  $g$  is endog.

Average inflation targeting

↳ not quite clear what model supports  
of 1% or more than RE.

Ryan comment on LATs:

29 Sept 2020

Hamilton College is the best liberal arts college in Con.

Consumption equivalents (CE) of welfare 29 Sept 2020

$\xi := CE$  = the amount of cons that would make an agent indiff between being in model a vs ap:

$$\xi := \underbrace{E[W_t^P(\xi)]}_{=} = E[W_t^{AP}]$$

$$E\left[W_t^P + \frac{1}{1-\beta} \ln(1+\xi)\right] \stackrel{!}{=} E[W_t^{AP}]$$

I guess this is the  
PV of  $\xi$  w/ log u

$$\Rightarrow \frac{1}{1-\beta} \ln(1+\xi) = E[W_t^{AP}] - E[W_t^P]$$

Dynar  
formm

$$\ln(1+\xi) = (1-\beta) E[W_t^{AP} - W_t^P]$$

$$\xi = \exp\{(1-\beta) E[W_t^{AP} - W_t^P]\} - 1$$

the interpretation seems to be "100.5 % of lifetime consumption"

## Andrea Vedolin meeting

28 Sept 2020

↳ finance fit miss mit was breakoren - Ti  
oder NK model isch

→ unklar xi was teil isch  
wieso , wichtig

↳ Shleifer wichtig bi infl expectations

behavioral NK model von A.

↳ over & underreaction bei mitffragt.

Framework CB's use to set i ass RE. By which  
(mean ...). But survey data shows this isn't  
true. In particular.

↳ lit on anchoring E via communication.

Reach out to her when you want to try the 5 min  
Spiel for finance people.

# Vaishali Garga meeting

29 Sept 2020

Mengdi at TBB - fiscal exp.

Control for things in reg

even tho not causal

- inflation uncertainty

- high/low levels of  $\pi$

- break the sample or add dummies post-

2012

→ try this w/ buttons in the slides

or title of slide: "time-varying" since that's  
the focus

emphasize correlation not causation

other comment:

IRF: decompose into constant gain learning  
vs. anchoring

alt: RE model v/ anchoring as an alternative

→ take an avg of  $\sin(k)$  as gain, constant gain  
IRF

1) diff b/wn AP & PCE

↳ check blog Banque de France

composition of underlying basket  $\rightarrow$  housing  
scores

$\rightarrow$  not definite evidence

Simple way to handle: "fine-structure in the set of  $\pi$   
and sometimes this is corr w/  $\pi$  or  $\rho$ "

$\rightarrow$  motivates the use of my model

be cautious not to say the fed has to be  
symmetric

2) RE vs non-RE.

2 things

A) Emphasize: fine-varying Kullback gain for ppl who  
get the fit  $\rightarrow$  & why is this an important  
feature for monetarist: gain vs. varying gain

B) if DGP has fine-variance: e.g.  $r^*$  and  $\pi^*$   
changes

3) Compose results to "Units" in presentation

Intro: debate on consequences for model of  
these trends in L-E

Some people say you have to  
be more aggressive  
Opportunities

Others say it looks wrong  
→ "Units"  
→ my contnb.

Other notes:

- Forming leads to  $\pi^* > 0 \rightarrow$  question: which NK model?  
Is st. st. iff  $= 0 \rightarrow$  deviations from what st. st.?  
→ Maybe just mention quickly a baseline b/c  
a 0 st. st. in NK vs.  $> 0$  at reality.
- CEMP:
- EE:  
Imperfect info  $\swarrow$  can be used to mitigate expectations channel  
vs here: excess volatility in E.  
↳ looking at imperfect info from another window

→ debate is empirical lit on under-correlation  
vs news

Opposite story to lit!

Maybe a downside: forward guidance in my model

↳ interesting

Send updated slides in Oct (2nd half and  
we can talk again in late Oct)

Vaishali barga meeting

30 Sept 2010

- Bridge TFP in RE NK  
Demand for R&D  
Demand shock → growth

↳ fully optimal policy under RE would be a good  
benchmark

- Two-axes for RE vs. TR.

- RE,  $\gamma^A$  = e.g. as a fourth column.  
↳ put numbers on graph as lines  
↳ easier to visualize

- Same for slide 37 : one graph w/ several values  
also use  $\frac{V}{\pi} = 2.2$  and  $\frac{V}{\pi} = 1.1$  as values.
- Slide 34: put in a button to clarify RE IS-  
leaving LH-E & why more volatile.

Button on loss to IS & PC curve why so volatile.

Our Barbican meeting

1 Oct 2020

presentation:

→ JMC curse: answer every question too long  
 → need to be sharper, quicker  
 so ppl don't drag you out of flow  
 especially in beginning.

- graphs / fig. in beginning → if they ask questions  
 that brings you out then move on & go straight  
 to point

Sometimes you need to let them go → first 3 slides.

Content-wise: good.

2 things: 1. Why should I use your system?  
 ↳ Not easy model / paper → is that

a way to convince me why I should use it?

2. Result counterintuitiveness  $\rightarrow$  like more discussion on it!

(B) so volatile  $\rightarrow$  would that be desirable b/c it's so volatile & time-varying

$\hookrightarrow$  prof will ask you this: do you really believe one should do it?

ppl don't care about the answer they wanna hear that you've thought about it.

# Cardin Pflueger meeting

1 Oct 2020

RW in  $\pi$  ( $\rightarrow$  and in  $i$ )

$\hookrightarrow$  breakeven  $\pi$  moves a lot around  
marginal announcements

Stock, Swanson et al  $E(\pi)$  corr w/  $i$

$\rightarrow \text{corr}(i, E(\pi)^{\text{LR}}) < 0$  what they  
predict

Eric Pfleiderer et al

Croen, Charles  $\rightarrow$  document distrib of skills  
vs - professions

Peter meeting

1 Oct 2020

↳ likely not likely to change

• Lucas (1987) models of B.C.

↳ welfare comparison diff b/c both policy & E  
are changing at the same time

→ change one thing at a time!

Econ A & Econ B

w/ one rule replaced by another

# Carolin Pflueger talk

1 Oct 2020

Romer & Romer (2000) "Fed info effect"  
10Y Breakeven  $\pi$   $\rightarrow$  S&P 500  $\uparrow$

$$i_t = \text{smoothed TR} + v_t^* + v_{ST,+}$$

$$v_t^* = v_{t-1}^* + v_{LT,+} \quad \leftarrow \text{Long-term } \pi \text{ shock}$$

↑ news about LR  $\pi$

$\hookrightarrow$  permanently higher  $\pi$  is good news  $\Rightarrow$  expansionary

$\rightarrow$  "Fed info effect"  $\rightarrow$  Ryan: Schmidt-Grohé & Mankiw

called this the "Neo-Fisherian effect"

# Maria Luengo meeting

2 Oct 2020

- PhD in Applied Econ  
ID & labor only

5-6 years : 90% research Fed  
↳ Minneapolis Fed → no policy work  
Philly Fed → more research  
Chicago Fed →

Dallas & St Louis are ok  
The others are more policy-intensive

The Board is insane → hierarchical

Interview: ask them what their job involves  
% policy & research & over time  
how it's concentrated in the year

E.g. Philly Fed: assigned to particular  
FOMC rounds → 100% policy  
otherwise 100% research  
→ Boston Fed doesn't work like that

Uni or regional Fed: you can ask about the interview  
Board or large insti: don't worry.

## UK system: Research Evaluation Framework (REF)

every 5 years they do an eval of insti based on research of faculty → then they kindle the funding based on that

↳ junior market is 50-80 in those years

↳ hcl friend

Wiki: the next iteration of REF was to be in 2021, but it's been delayed b/c COVID-19.

## Carlos III

one of newest unis (& Pompeu Fabra)

→ created to end an insidious hiring

Not general: Carlos III specializes in  
Engineering, business (con  
& law)

↳  
Econ Dept. → Need top 5 for full prof  
Business Dept. not for Ass. Prof.

CEMPI → best place in Spain to get a job

↳ comes from Bank of Spain → money

Master & PhD program

Lots of research

#2 Barcelona: consortium of unis  
(Pompeu Fabra, Autonoma ...)

"Good School of Economics"

#3 Carlos III

#4 Alicante Dept of Econ very good dept!  
all → teaching in English  
→ ask her about Spanish openings!

Talk:

Time use → need to get more fast  
& have time to repeat the message!

Answer questions quicker & better if necessary!

Substandard methods should come across  
that it was hard!

↳ Send a new draft later or a newer version  
of my slides.

↪ Nov!

## Chris Cotton meeting

2 Oct 2020

- Core inflation → recession w/ time to clean out oil shocks
- faster at the start
- 1.5 years ago he was on the market

Advisor vs. "Senior Advisor"

Anything below "Chair" / "Chair" isn't overwhelming w/ policy work.

Jenny Tang meeting

2 Oct 2020

GD min job talks? On Zoom they might be shorter.  
→ have a shorter version!

Procs outside your dept are slower.

clickable buttons!

, analytical results for simple version

↳ quantitative results for full version: learn  $\binom{\pi}{x}$

- if E look like a TR, then opt. policy will look like TR
- the pic of reg :
  - if we were in FIRE, the line should be zero
  - if we were in a gain world, it should be flat at k.
- important point: the other point you're not making forcefully is that they're not about long-run expectations.

"Knowing the model but not seeing the SR shades vs. seeing the SR shades but not knowing the model (me)"

→ my way is more powerful b/c in noisy info their beliefs are only as persistent as the shock.

Noisy info: responses to shocks muted

(but they do generate more persistence  
but the overall effect on unconditional  
variance is unclear)

↳ here instead ppl learn about permanent objects  
which is why the policy responses are large  
→ makes it more palatable to ppl b/c  
they know that in NK, policy responds more  
to persistent shocks.

Either: Jimmy can attend Macro lunch → don't meet  
on Oct 16 but meet after talk

Or if she can't attend, can meet on Oct 16 to  
go thru slides.

# Slavik Sheremiror meeting

6 Oct 2020

(See his comments from his email saved in the BosFed prez folder.)

- Balance item theory & empirics really depends
  - ↳ JMP is nice if you compare policy inst's proper data work
- Reward for this kind of work
- size of effect  $\Rightarrow$  very hard to convince don't break, but present w/ explanation  
don't say "take it or leave it"

Similar to first guidance puzzle:

small anchoring will persist for  $\infty$  time

↳ discounted EE fit  $\Rightarrow$  downplays future fluctuations  
Nakamura, Steinsson & McKay "Discounted EE"  
& whom they cite  
↳ kills off the first guidance puzzle

↳ If there's a way to make anchoring matter only in the immediate future

- Rigoristic

normally a good motivation

but my test is a little counterproductive

It's one way to test for anchoring  
but it is the only one?

↳ + discussion on: is it D-cl?  
→ misleading!

Maybe say that it will come out of the model  
provide intuition

Show knowledge of problem → say that  
it needs a model

Show the PCE Inflation vs. 2% target

→ "Why would anyone believe that the  
target will be reached?" → or look to evidence  
in other papers

Could show CEMF result too to protect yourself.

Or say: I'll have a model & I'll come back to that.

Don't feel you have to answer the question exactly.

- $\hat{E}^m$  vs  $E_{firms}$   $\rightarrow$  b/c firms have small costs to learn and high benefits especially large firms!

$\hookrightarrow$  PC would incorporate  $\hat{E}^m$

Gibson & bord: firms act <sup>as</sup> ~~instead of~~ as consumers in NZ.

Set up stuff w/ the other fellows!

Reach out to him & other BasEd ppl later!

Shaowen Liu meeting (Virginia Tech isn't 6 Oct 2020 hiring)

Singapore & HK best

1. NUS best  
2. Nanyang Tech U

3. NUS - fall LAC

4. Int'l business school

1. HK U

2. Chinese U of HK

3. HK U of Science & Tech

4. City U of HK

5.

Mianyang China

1. PKU Peking

2. Tsinghua

3. Fudan Shanghai

Peking

-1-

tough to get in

4. Tsinghua Transportation U Shanghai

Beijing:

Finance & Econ Schools :

- University of Int'l Business & Econ
- Central U of Finance & Econ

Shanghai:

- Shanghai U of Finance & Econ

Also good:

Xiamen U

Jinan U (Guangdong)

Wuhan U

# Ryan meeting : Comments on Sept 21/25 draft 7 Oct 2020

- Content:

disconnected from TR & other results  
*in periods*

1. Agents expect st. st. after a certain horizon in the future. If st. st. is like TR, then you can benefit by picking an  $n$ .

↳ Intro: careful to cite a magnitude that might change.

2. Cons. equivalent:

Welfare from 2 stochastic worlds

→ get st. st. cons for those & compare  
for those

- Schmidt-Grothe & Knebe: comparing non-lin  
it doesn't make sense when model is a  
linear approx.

Woodford tends to rescale the welfare term as he likes.

Valid: use utility function & the properly scaled loss function

1. take st. st welfare

2. take loss function to find dev from st. st. loss.

↳ Then it's a 2nd order approx from the st. st.

$$\underbrace{\sum \beta^t u(c_t) - \sum \beta^t u(c_t)}_{\text{dev. from some nonstochastic st. st.}} \approx -\Psi L^W \left( \left\{ \hat{y}_t, \hat{\pi}_t \right\} \right)$$

Woodford tells you how to get 2nd order approx of this

but he doesn't tell you the scales of (figure out!)

You can compute  $L^W$  vs  $L_2^W$  ↗ alternative policy

Steady-state consumption equivalents:

$$\sum \beta^t u(c_1) = \left( \sum \beta^t u(c_t) - \Psi L^W \right)$$

$$\sum \beta^t u(c_2) = \left( \sum \beta^t u(c_t) - \Psi L_2^W \right)$$

→ compare  $c_1$  &  $c_2$

2nd order approx for welfare under policy 1

Steady-state consumption:  $c$  needs to come from the nonlinear model

Maybe  $\frac{u'}{u''}$  w/o look  $c^*$

May require additional commitments

## thinking aloud

14 Oct 2020

2 points content:

- large interest rate response
- consumption equivalents

3 points presentation

- ✓ draft: conclusion
- ✓ make it snappy
- ✓ emphasize what you will do

• presentation = update from

• what to do w/ opt i? draft

• impulse? ✓ compile a FAQ

• %? ✓  $\hat{f}$ -plot: put % on x-axis label!

No need! ~~X upload draft again to EIM~~

## Peter meeting

15 October 2020

Goodfriend's paper has examples where the Fed raised the int rate more than it wanted to in response to an  $\pi$ -scare!

→ could cite that paper! 50-75 or 100 bp vs. Fed's "de facto policy" to move: 25 bp at a time

Also in developing countries 100s of bp moves have been seen.

## Goodfriend 1993's aggressive int-rate response

- Sept 1979 - April 1980 : 6.2 pp ↑
- Sept 1979 - Oct : 2.3 pp ↑ in one month!
- March 1980 : 3 pp ↑
- July - Dec 1980 : 10 pp ↑

Jenny meeting

16 Oct 2020

~~✓~~: Overlay SPF-E on second axis? → No

✓ S.1: Anchored  $E$ : tighten! "E stay where they are regardless of how actual  $\pi$  moves around"  
Important b/c long-run  $E(\pi)$  determine how firms set prices → if LR-E stable, prices are stable.

✓ S. 5 "ANCHORING EXPECTATION FORMATION" → pol won't get it.  
How to conduct policy when  $E$  can become madworld?  
or when policy affects anchoring?  
How does a potential unwind affect mon pol?

5.16.

Don't give "overest" a full bullet point.

↳ instead put b/c ppl think it matters for theory (while it doesn't)

⇒ take out this bullet

Take out 3rd bullet point b/c you're not arguing for a constant gain

⇒ don't take out but highlight that for theory you focus on #1.

✓ 5.15 Reads too much like "I'm throwing all these empirically relevant elements together"

put 1 & 2 up together & take out 3  
Attude back to motivation slide: gain function is fine-varying in a non-deterministic sense  
take out (1) & (2) as not true in the least → maybe patterns  
the (3) is true in the least ⇒ that's why it's  
sample mean b/c ppl don't need that  
↳ this is what you say.      ↳ Like to motivation slide [un]

Silently Carrasco et al → should give the example → do it here  
say:  
May the Great Inflation is still ppl remember  
↳ gets the point across that indeg. gain important.

✓ Gain: noisy info looks like this  
(Goro & Gordon) (Can say one sentence)

✓ S.18 calibrate variances  $\rightarrow$  don't put on slide b/c confusing

✓ S.19 -  $\lambda_x$  take out here  
this isn't Smets & Wouters

✓ S.20 put all params in one table

-✓ S.21. Put this and procedure thing in appendix  
instead: "I estimate a functional form of the  
flexible form

expectations process"

✓ ↳ Repeat eq (18) instead

and plot  $\underbrace{g(f) \cdot f}$

spoonfeeds audience

"ala nonlinear"

Avoids nodes discussion

✓ S.22 2015 stay might be going on w/ oil prices  
 $\rightarrow$  check!  $\rightarrow$  In line w/ other work: Goro et al  
Cons. E very sensitive to oil prices b/c gasoline

S. 25 & 26 make it one slide Ramsey,  $\alpha = 0.05$   
make slide look usually like slide 26

1. empty slide :  $\pi_t = -\frac{\alpha}{K} x_t$  Only  $\pi_t$

2. add on the other pieces

And simplify  $\frac{\alpha}{K} \frac{(1-\alpha)\beta}{1-\alpha\beta}$  some simple coefficient

• same for the product  
w/ button for full expression

S. 26: move big RHS term to LHS.

$$\pi_t + ( ) = -\frac{\alpha}{K} x_t$$

↳ Now this new term can move too  
↳ a new term that can absorb  
the cost-push shock

In RE<sup>+</sup>: opt. thing to do is to have  $\pi_t$  &  $x_t$  absorb  
cost-push shock.

Here, a new thing is  $E_{T+1}$ , you can push some of  
the shock to the future.

• highlighting is off.  $f_{T+1} g_{\pi_T}$  should also show only  
in the third

✓ 2nd bullet shows just a single constant multiplying  
 $\sum x_{t+i}$

$$\begin{array}{l} \downarrow \\ O(k) \text{ or } O(n) \\ \cancel{O(kn)} \end{array}$$

✓ S.27 put as feedback slide

✓ S.30 RE version of plot?

Don't do TR-E  $\rightarrow$  you have good reason  
to speculate that w/ reasonably  
adjusted E you can squeeze magnitude

↳ Is  $\bar{\pi}$  stable? Is 0.1 pp a large  
movement in  $\bar{\pi}$ ?  $\rightarrow$  Show variations  
in  $\bar{\pi}$  (or stdder)

↳ The CB can stabilize  $\bar{\pi}$  w/ its  
Model spends most of its time close to  $\bar{\pi}$   
of 0.

✓ S.31 Emphasize: only diff b/w yellow & blue is  
the gain  $\rightarrow$  so if policy lets gain be high, you  
get yellow.

~~S. 34~~ for TR. Solution of  $\gamma_{\text{gain}}$ ?  
→ maybe you can compare  $\gamma_a$  and  $\gamma_{\pi}^{\text{gain}}$

~~S. 35 - 36~~ Is TR Confusing more than it's answering?

↳ doesn't seem to work b/c  $\gamma_a^{\text{and},*} \neq \gamma_{\pi}^{\text{gain},*}$

✓ Asymmetry should be there b/c  $\gamma_{\pi}$  is diff when  $k$  is  $\geq 0$ .

If you plot against  $k$  it's there,

It's not there b/c you're plotting against  $\bar{\alpha}$ .

General audience: diff will be whether some slides are in app or not.

✓ Technical audience: maybe show present but you don't go into detail b/c you want that ppl don't think the detail matters just to show fancy things you did.  
↳ App. slides!

Nor is next meeting

Email about Webinars

## Work after

- ✓ Statement of RE in  $\hat{E}$  (in draft)
- ✓ Varshali comment (29 Sept 2020)
  - Control for things in reg even tho not causal  $\rightarrow$  App.
  - Inflation level, infl. uncertainty, break sample in 2072
  - The two look the same?
- ✓ Philippe (29 Sept 2020) can refer to Orphanides vs Posen in "IR less aggressive" part  $\Rightarrow$  emph "my contrib"
- Varshali (29 Sept 2020)
  - ✓ - CB loss plot: put  $Y_t^*$  on there as a line /
    - maybe I should put Mankiw/Susanto stuff in to clarify why the model is more volatile than RE (at last in app)
- ✓. Carsten Pflueger (1 Oct 2020) Gürkaynak, Sack, Swanson 2005 AER  
Stock Swanson et ... (might be Sack, Swanson Gürkaynak)
  - found that  $\text{corr}(i, E(\pi)^{LR}) < 0$
- ✓. Chris Colton (2 Oct 2020)
  - do reg w/ PCE core to clean out oil shocks
- Jerry (2 Oct 2020)
  - X - hideable buttons
- ✓ - add to opt policy specification: if they could learn  $\binom{\pi}{x}$
- ✓ - She also made some really nice interpretation points (should write up  $\Rightarrow$  write a "neat interpretations" collection!)

• Slavik (6 Oct 2020)

- Nakamura, Steinsson & Mckay "Discounted EE"

✓ App: PCE Inflation against 2% → why would anyone believe target will be reached?

✓ Jenny's comments today (first priority)

Note: Core PCE = excl. food & energy

- Change core banknotes
- Change portfolio h-rng.

- Plot in robustness checks in paper
- Rewrite intro/abstract analysis of opt pol

✓ S.3 SOF write out.  
Δπ def

✓ S.4.  $\hat{\beta}$

✓ S.12  $g_t = (\tau_t, x_t, i_t)'$   
Et  $S_{t+1}$

✓ S.18 (Lit prob here) or sources.

✓ S.21 Motivation plot? → argue that it fits the general features (simple model)

✓ S.24  $b_1$  was defined before. Endogenous gain!

$$\frac{K}{P}, \gamma_x$$

- ✓ S. 27 % of  $\Delta \hat{d}$  that results in  $< 75$  bps : movements  
 ✓ Add good/bad to inhibitions  $\hookrightarrow \approx 60\%$  of time  
 ✓ S. 28 oscillatory button  
 ✓ S. 31 pause (maybe highlight  $\bar{r}_{t+1}$ ) in  $< 100$  bps movements  
 ✓ add this in LaTeX

✓ S. 32 put Preston (Chm73)

$$\hat{E}_t \hat{X}_{t+1}$$

✓ S. 33. anch. determines extent of  $\hat{E} X_{t+1}$

$E_t^i x_{t+k}$  in IS-curve

20 Oct 2020

Preston (2005) p. 16 (Mac) IS-curve

$$x_t = \hat{E}_t \sum_{T=t}^{\infty} \beta^{T-t} \left[ (1-\beta)x_{T+1} - \gamma(i_T - \pi_{T+1}) + r_T^n \right] \quad (6)$$

Lead one period:

$$(1) \hat{E}_t x_{t+1} = \hat{E}_{t+1} \sum_{T=t+1}^{\infty} \beta^{T-t-1} \left[ (1-\beta)x_{T+1} - \gamma(i_T - \pi_{T+1}) + r_T^n \right]$$

(2) Take RE at + on both sides (apply LIE)

$$E_t x_{t+1} = E_t \sum_{T=t+1}^{\infty} \beta^{T-t-1} \left[ (1-\beta)x_{T+1} - \gamma(i_T - \pi_{T+1}) + r_T^n \right]$$

(3) Now take (6) and pull out the  $t+1$  terms:

$$x_t = E_t \left[ (1-\beta)x_{t+1} - \gamma(i_t - \pi_{t+1}) + r_t^n \right] + \beta E_t x_{t+1} \quad \text{IS (RE).}$$

→ I think it must be that  $\hat{E}_t$  doesn't satisfy L.I.E. while  $\hat{E}_t^i$  does

It must be b/c it's step (2) that is different between RE and learning. → Yes, I think it's fair to say that  $\hat{E}^i$  satisfies LIE while  $\hat{E}$  doesn't.

Anticipated utility (Kreps) → is a way of saying that LIE holds for  $\hat{E}^i$ .

Ok - but why does for RE, where recursive & non-recursive formulation coincide, simply no role for  $E_{t+1}^i$ ? ⇒ it's not that it doesn't, but it's that  $E_{t+k}$  is fully rational, while  $\hat{E}_{t+k}^i =$  partly non-rational and so it moves more.

S. 21 phe apart

- ✓ Paper: put in robustness checks for regression
- ✓ Paper: rewrite optimal policy section ( $\rightarrow$  intro & abstract)  
w/ big results & explanation
- ✓ Cover letter: change templates (concise, avoids numbers)
- ✓ Change tracking portfolio numbering.
- ✓ Website: add "on market"

## Macro lunch

21 Oct 2022

- 3. Reg slide: Robert: Coibion & Goro  $\rightarrow$  J: answer not crisp
- Mario: add i index
- 5. Pablo: LR-E money isn't relevant now
- $\hookrightarrow$  the right answer is that this is a timeless question & model: history teaches us that LR-E can move, so it can happen again
- Fabio: "Paper" not "Project"
- 5.7. Rosen: lacking motivation why admissible E?
- Robert: Show me most imperfect info can't give you this if uncertainty declines over time

Rosen: can sidestep this discussion

Fabio: you lost control

s.14 - 15 Rosen: Dn3 13-4 OLS

□ Ryan: only again learning is RLS

s.16 Jarrowir: since E behavioral, you can't do optimal policy

s.20 Ryan: Can run motivating reg in a non-parametric

□ way and obtain the same thing?

s.26. Pablo:  $\lambda_x$  is chosen by mon pol optimally?

s.27 Pablo: large response in policy

□  $\hookrightarrow$  compute equivalent TR coefficient  
and see how large it is

□  $\hookrightarrow$  show histogram of  $x_t \rightarrow$  polynomials  
use

s.28 □ Pablo: size of stock / what's on Y-axis

- report unconditional volatilities

- or

- use RE-benchmark and show relative to that

### After talk

Rosen

- intro doesn't work too well

- set the table for why not RE

- estimate  $g$  from reg directly, very straightforward

- downward trend dominates first graph  $\rightarrow$

- State-dependent not just time  
anch. dep. needed
- behavioral agents, mon. pol. exploits that  
↳ ass. that CB knows a lot (model &  $\hat{E}^t$ )  
is very strong

Jaronne: Lucas-critique

- Rosen:
- write down what  $g(\cdot)$  looks like
  - Answer to Jaronne: "relax full info ass  
in a way that's 'adjacent to optimal'  
(if uncertainty about the world). So instead  
of ass-ing something, I use adaptive  
learning which is robust."

Luca:

- $\square$  if  $\pi^L$  is nonstationary in the data  
then  $\text{Corr}(\pi^L, \bar{a}_t) > 0$  and therefore under  
RE  $\bar{\pi}$  should be corr w/  $\pi_t$

- Mario:
- a reg. is dangerous b/c ppl ask too many questions
  - maybe cite 2-3 papers as an intro
  - Stop fighting: just say "you're right" & move on
  - Lucas critique: lots of papers don't worry about  
it like Sims & Zha (2006).

## Ryan meeting

- went off in ways that plausibly can go wrong in a summary
- send Ryan the list of FAQ and send Ryan
  - Introduction doesn't work  
Supp. we just kept the quote slide  
maybe not read the whole quote  
"CB-ers have been talking about E-moder.  
for a very long time & now  
Problem: we don't have a good concept  
of what anch is. So my goal is  
to show you a model ~~that~~ based on  
a realistic description of E-information  
that provides that notion and helps  
analyze how policymakers should respond  
to it."  
→ Don't worry too much that ppl. say  
COMP already had a model.  
→ If ppl say "why don't we see the data?"  
→ "Other authors have shown that this works well,  
let me defer to my estimation & you'll see

it captures the data well.

↳ Early January we can do a test w/  
both Intro's

Pablo: LRE isn't moving why worry?

1. Fact that policymakers are talking about it shows it's a concern
2. The model can talk about both anchored & when unanchored  
→ all the more reason to consider this model.

Preview of results:

- ☒ • Nonlinear effects of  $f_L$   
(Even constant coefficients matter more when  $f_L$  is large)

s. 15 good at making connection to Lit.

If who stretches too long: "Lots of good lit talks about it, I'll describe the connections in detail (→ s. 15) " to postpone

↳ Then you can "skip" the lit review w/o saying that you'll skip it.

Jaronir: Lucas critique

Goal: take critique seriously

Acknowledge there's no perfect sol  
but you see value in the exercise

"The Lucas-c. is important whenever we  
do econ.

But my view is we need a structural  
model of E-formation. Domestically is  
RE. Argyle (it says that it's not a great  
model. I'm offering an alternative model.  
While it offers a behavioral rule,  
there's evidence (in fact & in data)  
it also incorporates a channel that  
captures what I'm interested in  
(unanch) so that's why it's a valuable  
exercise.

Maybe one can argue that the model  
captures well  $E \Delta$  across pre- &  
post-Volcker.

$\tilde{R}$   
consistent  
w/

↳ There was a structural change  
in policy (and RE doesn't fit how E changed).

→ f: What's optimal about it?

"I agree. My model is a good struct. model of how behavior works. It's not derived as an outcome of optimization. It would be interesting to see whether it can be derived from an opti problem."

s. 20 absolute value  $\rightarrow$  take it out.

- functional form - say it for  $g$  but don't put in slide
- intro shades in calibration

s. 21. Good pic:

- fe & gain on one plot
  - ↳ plot separately the implied  $\bar{v}$  against the SFF but that won't do what you want
  - but it's a trap
  - take it out
  - ↳ polish like Ryan: can you estimate the reg. directly (do it in DCC.)

Find the form  $q(\cdot)$

Isognomism  $\rightarrow$  make  $Cg(\theta) = 0$

choosing 5 params w/ 600 moments  
Use avg SFF and idiv SFF to see if it makes sense.

Fabio:  $\lambda_x$  optimality

Ryan: Is RE necessary for  $\lambda_x$  to be what it is (i.e. is the di-quadr. objective dependent on E-formation?)

↳ check the adaptive optim. pr.

We don't know, so I'm using the one from RE.

S. 28 · magnitude good question.

↗ "strongly anchored"

"weakly anchored" (instead of gain)

"unanchored"

"if I had plotted gain  
it would look just  
like this".

"RE" last

Draft: 2nd reading 2 options:

hand in by next week to get ready for Nov 15

hand in before job talks

↳ likely this option generates more helpful  
feedback. → let him know on Friday!

22 Oct 2020

- ✓
- Saturday: read thru current draft & do corrections, then save a version for submissions.
  - Turn to cons. equivalents.
    - ✓ • size of IRFs (Figs 5 & 7)  $\rightarrow$  switch to cost-push shock, then is larger.
    - direct estimation of  $g(\cdot)$

### Brian Dombeck meeting

26 Oct 2020

- RLS: It is a Kalman Filter
  - $\hookrightarrow$  in eq. (21) for paper, invert 2nd moment matrix to weight less volatile data more
  - $\hookrightarrow$  how does that relate to endog. gain?
  - But 2nd moments should move around as well  $\rightarrow$  so how should you weight stuff ( $R^{-1}$ )

Quinn: Intro & conclusion  $\rightarrow$  perhaps you wanna put in future research: est. b is a generalization

$\hookrightarrow$  PEV decomposition  $\rightarrow$  how some shocks adjust the gain vs. the mechanical adjustment

- ECB → be ready to answer what happens at ECB.  
 ↳ could answer using learning as a selection criterion?  
 b/c again is worked which is E-stable  
 we do know
- NK model: 2 equil-ia  
 long. trap unstable under learning

### Adaptive learning & currency crisis

Kang In-Koo Cho : Learning Dynamics & Currency Crisis  
 2008, Macroecon dynamics  
 Escape dynamics (like sunspots & herding)

Maybe move reg to after the Intro  
 to a section called Motivation.

Stream of consciousness thoughts on Cho & Kang  
 ↳ send by email.

Ryan meeting

11 Nov 2020

Make list of 10 possible places for signal & we can talk about it.

Start working on interview script → practice w/ other students!

Stefano Ensepi meeting

12 Nov 2020

Aggressive if you don't have AD

but when you do have AD, as monopol, you become very not aggressive!

Check with option fit in Anchored. → continuous (and Cho & Kao)

! 1. Learning not optimal → "but how can you have an optimal filter when you don't know the DGP?"

2. EE is LH-learning for general interest audience:

"EE assumes that monopol can control output directly, so the whole AD-side is out. Here instead we include AD."

→ Reach out to Stefano, interested in working together?

Stefano prezi  $\rightarrow$  write him email!

~~Email~~ Could one say that L(E) holds for  $\hat{E}^i$  but not for  $\hat{E}^j$ ?  
(for IS & PC curves non-recursive)

Ryan: agents don't know the Fisher rule in the LR?

S: yes that's right.

Jaromir: asking the famous question:

S: "w will always depend on policy  $\rightarrow$  expectations  
 $\uparrow_{LR-E}$  are dependent on policy"

"g is policy-invariant there" (b/c again learning)

$\hookrightarrow$  "but policy still influences expectations, even here"

J: worried about Lucas critique.

S: "I'll give you cheap answer: in est, we allow for diff gains and compute policy for that."

The last B question is how do you shift the gain.

( $\rightarrow L_j$ ) The gain parameterizes  $E$ , but it doesn't mean  $E$  don't adjust to policy. There is

some Lucas critique, but E-formation being policy invariant doesn't mean expectations are - they're not."

David:

Lucas-critique: Have you thought about how to introduce optimality to beliefs?

- "Boero et al. → they have a wrong RG (too high) first like we do"
- Susanto: "Why don't you test a term structure eq. + equation-formation?"

S: "Let me show you what I have, just give me a sec."

Email

• Maybe ask him for the slides.

Email

• Oscillating RFS?

- Rosen: Forward guidance?

S: "Philosophy: if you can control E directly, you'd done! But then we'd have to control for whether ppl believe you rk. Our intention here is to start w/ a primitive."

Angulo et al. Over extrapolation-evidence is mounting.  
This is how far from E, the question:  
What limits does it impose on mon poly?"

Susanto: - like of lit Ken French (?)

Survey E in term structure est fits better  
than RE.

- why don't you show that your E-struct  
fits the term structure better?

S: "Model has term structure of E"

Sus: - But same question

S: "w/ Grump we have that, but you don't  
fit the term structure well b/c you don't  
have a big/risk premium in the model.  
So we capture in the best poss. way  
of term struc of E, not necess. the int  
rate." <sup>expected short rate</sup>

Sus: reg future<sup>K</sup> rate on (long-short gap)

is the usual thing to do. So you could plug in  
E(short rates) and see how well you do.

Jenny Tang meeting

13 Nov 2020

Interviews

Schedule people you care least about first

→ when those should be 7am or late in  
eve (6-7pm)

↳ opt in slots 1-3 pm or 4pm

Best: early afternoon of first full day

↳ they begin calling after first day

BoFED starts making calls at least one week  
after the AEA, and then FOMC in Jan  
screens up the interview

Int'l:

↳ see intro: interesting, & what you do

Then: 3 bullet point thing

After 5 min, you will be stopped

↳ so be ready to go down different branches

So you wanna get punchline in there  
before you're set off on a tangent.

10-20 min. Good sign if ppl ask a lot of questions →

→ interested & engaged.

But it can happen that they're broad and ask  
"do you have anything else (more interesting) to  
tell us about?"

→ be prepared to talk about other work  
& especially research agenda

↳ show that you're broad

e.g. BosFed is a small Fed, so we need  
ppl who're good at multiple things

↳ so hint at your other projects during your speech  
(Don't push it too hard tho.)

BosFed 45 min

20-25 min on JMP

5-15 min on other work

5-15 min on "questions for us"

and BosFed has their own little speech (!)

Lib Arts schools might have one too  
Other schools usually don't.

ask about policy work! LAS → ask about students.

Be prepared about anything on CV.

Baseline Expectation: people have read your abstract & maybe skimmed the info  
(but maybe months ago!)

Get list of interviewees!

→ More interview next time!

Opt policy generates lots of challenging questions  
from micro theorists!

Ppl might be on committees who were on the market last year! And they ask challenging questions.

I'll send the AYEW slide.

Ask about tenure requirements in reports only. And frame it like this: "What does a successful assistant prof. profile look like?" (and not "What are tenure req?") You don't wanna sound like "What's the bare minimum I need to do?"