Discussion of

Threshold-based forward guidance: hedging the zero bound

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Outline

➢ Praise and Summary

➢ Try to say something clever

Praise

- Great paper to read
  - important question
  - very topical
  - very competently done
 - clear results and policy implications/messages

Summary: Set up

➢ Threshold-based forward guidance in NK model with ZLB

    ➢ Probabilistic exit: 0 below threshold, increasing in the distance when above threshold

    ➢ Commitment, credibility and 'one off'

➢ Methodology based on Adam/Billi

➢ Comparison with discretion, commitment and calendar-based FG

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Summary: Results

➢ Threshold-based FG: **great idea**!!

- ➢ Close to optimal commitment policy
- ➢ Better than calendar-based => better distribution of outcomes because of state-contingency
- ➢ Low ex-ante loss
- ➢ Time inconsistent, but … low temptation to renege
- ➢ Imply an overshooting of the threshold
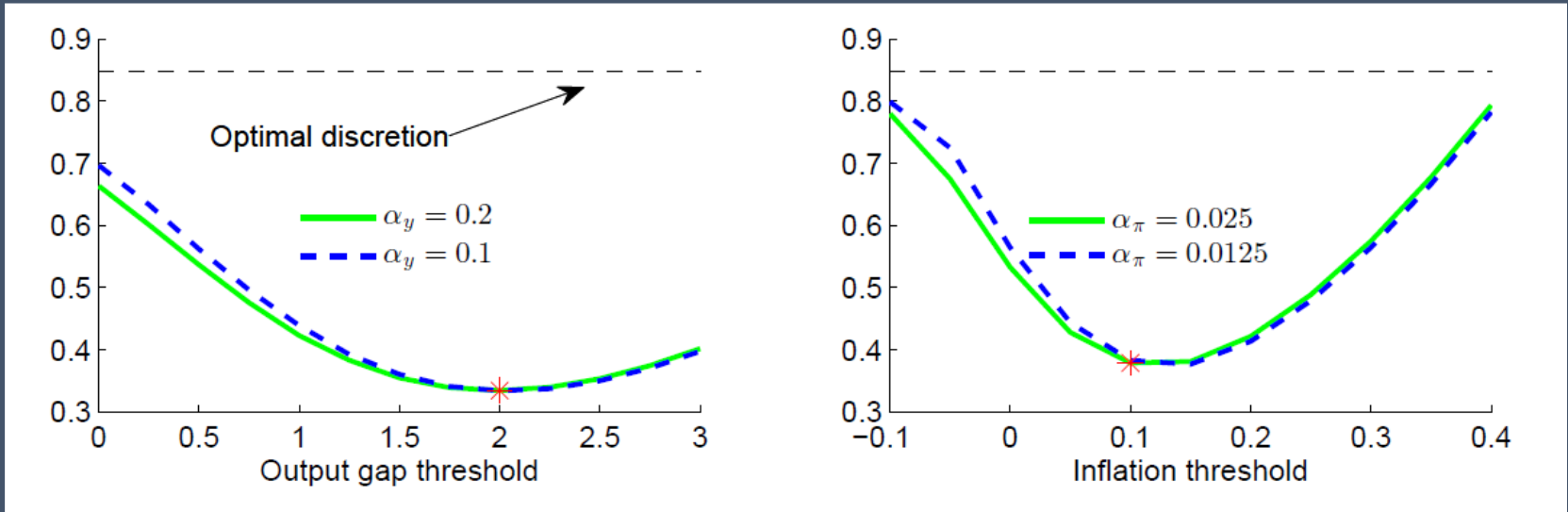- ➢ Robust

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Summary: Results

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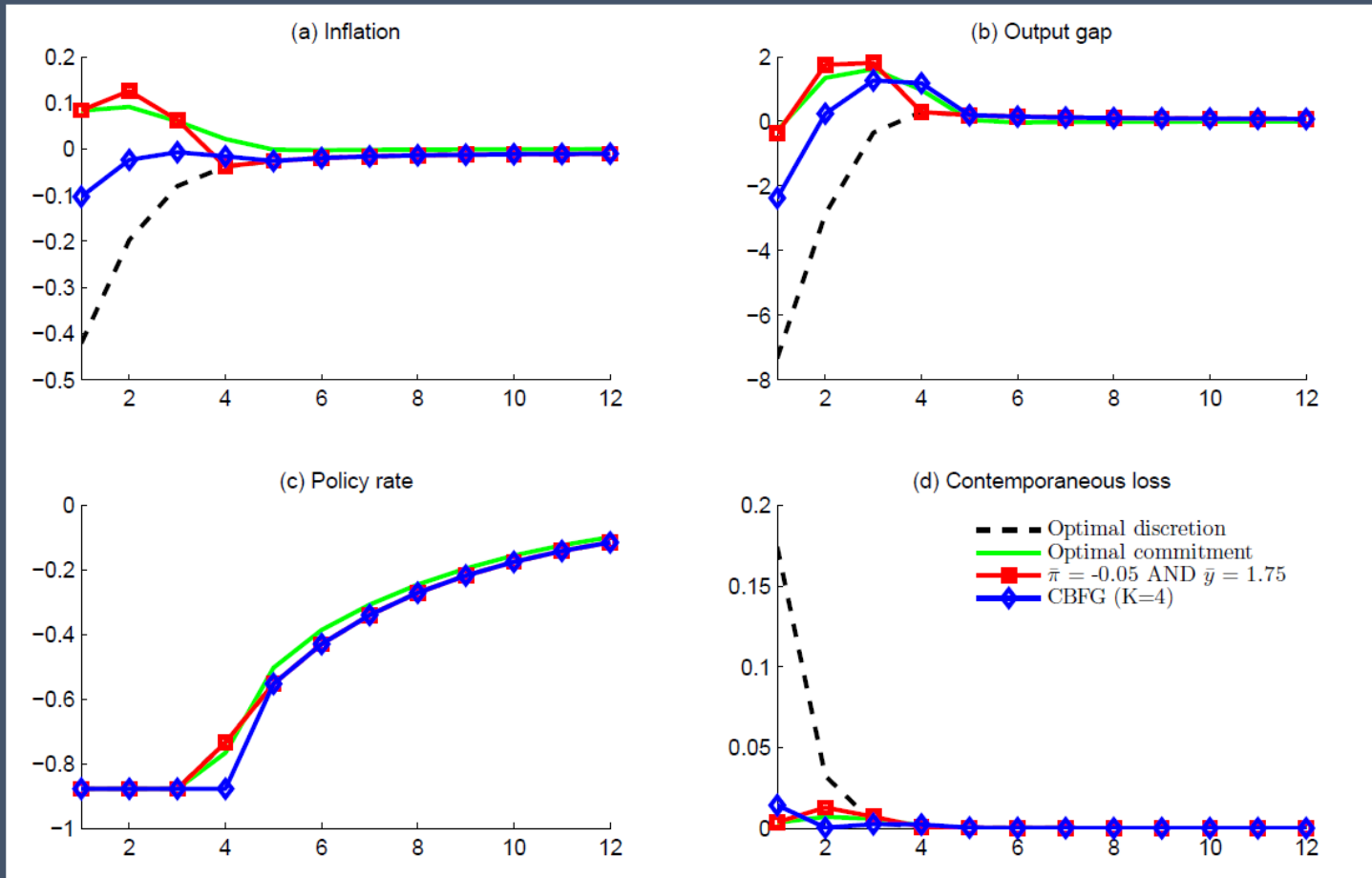
Summary: Results
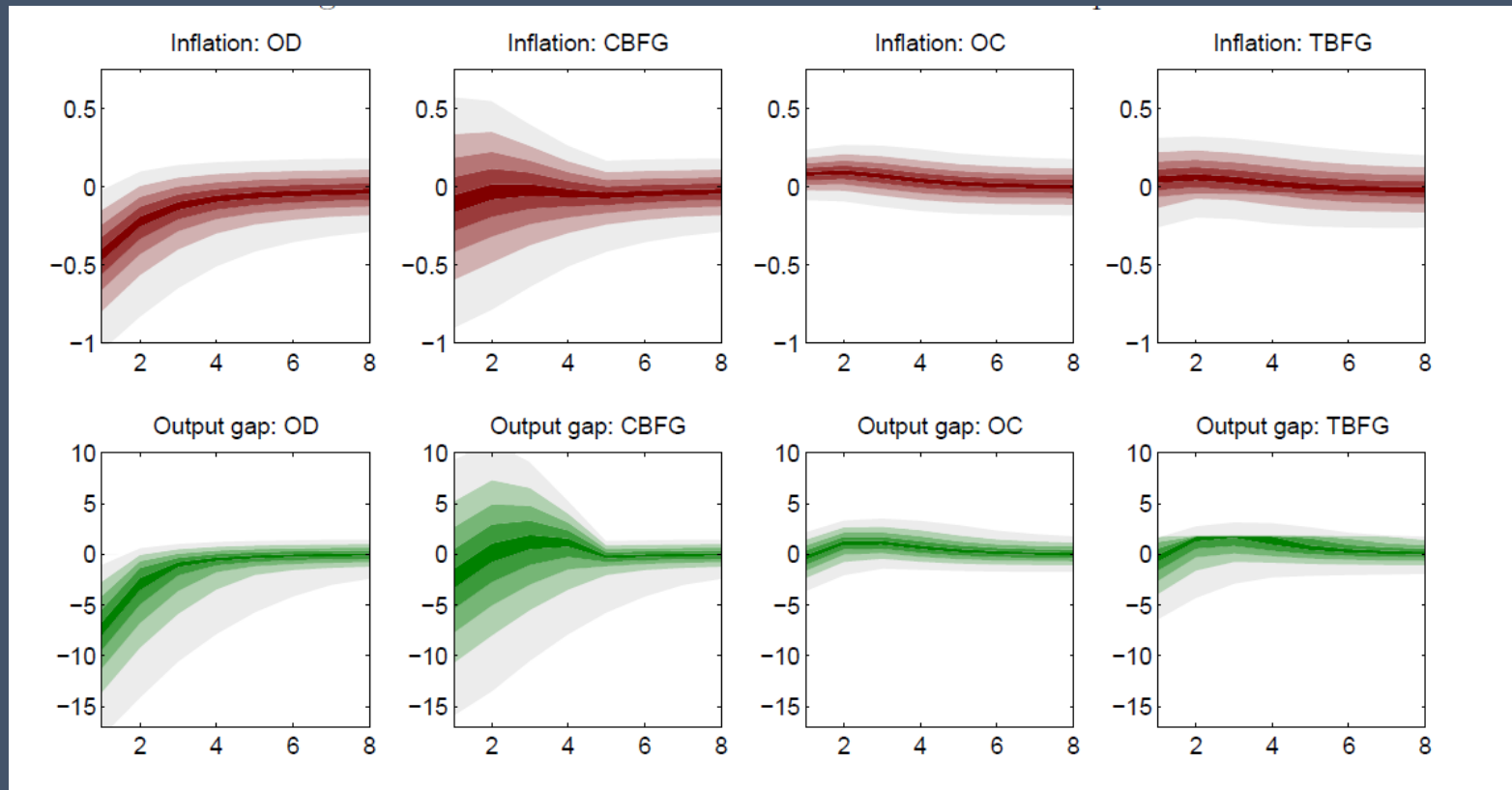
Summary: Results

Comments
(Try to say something clever)

➢ Modelling / Solution

➢ Effectiveness of FG

➢ Implications for data

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Modelling / Solution

➢ Log-linearized model:

    ➢ Multiple equilibria (Benhabib et al., Arouba and Shorfeide)

    ➢ Non-linearities and the ZLB (Villaverde et al.)

➢ Very simple model: no intrinsic inertia

    ➢ Endogenous states: "reversal puzzle" (Calmstrom et al.)

    ➢ Sticky info vs sticky prices

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Modelling / Solution

➢ Design of the policy experiment: 'one off'

  ➢ Markov-Switching and expectation effects => Modest policy interventions? (Harrison)

  ➢ Credibility and probabilistic exit

  ➢ Policy schizophrenia: revert to optimal *discretion*

  ➢ Importance of policy after FG (Calmstrom et al.)

➢ Zero inflation target => varying the inflation target? Simpler, effective (Chattopadhyay and Daniel, Demichelis and Iacoviello)

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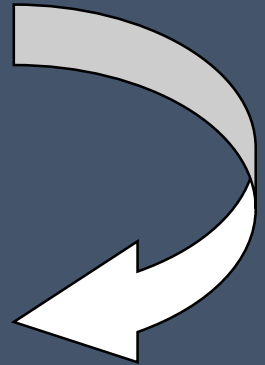
Effectiveness of FG

➤ The "forward guidance puzzle" (Del Negro et al.)

 ➤ *large* and *explosive* response to FG (Galí)

 ➤ forward-lookingness of EE stimulate demand

➤ Results rely a lot on it

$$\hat{C}_t = -\sigma \sum_{j=0}^{\infty} E_t(i_{t+j} - \mathbb{E}_{t+j}\pi_{t+j+1} - r^n_{t+j}).$$

= 6.25

Effectiveness of FG

➤ Need to distinguish two points:

➤ 1. How much demand is forward-looking?

> ➤ Habits (Fuhrer)

> ➤ Incomplete mkts and credit constraints (McKay et al.)

> ➤ Perpetual life OLG (Nisticò)

➤ 2. How strong is the intertemporal substitution channel? How big is the EIS?

> ➤ Hand-to-mouth consumers (Bilbiie) => change sign!

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Effectiveness of FG

➢ "RBC calibration" to address 2.: Is FG still effective?

Table 4: Results for alternative calibrations

Variant	Threshold type	$\bar{\pi}^*$	$\bar{y}^*$	$\frac{\text{Loss}}{\text{Loss(OD)}}$
Baseline calibration	Inflation threshold	0.15	–	0.444
	Output gap threshold	–	2	0.394
	Dual OR threshold	0.3	2.25	0.392
	Dual AND threshold	-0.05	1.75	0.391
'RBC' calibration	Inflation threshold	0.25	–	0.264
	Output gap threshold	–	1	0.284
	Dual OR threshold	0.35	1.5	0.26
	Dual AND threshold	0.15	0	0.254
Lower IES	Inflation threshold	0.25	–	0.215
	Output gap threshold	–	1	0.198
	Dual OR threshold	0.4	1	0.191
	Dual AND threshold	0	0.75	0.189

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Effectiveness of FG and "RBC calibration"

➢ Are we missing the point?

➢ Lower **<u>relative</u>** losses => much higher **<u>absolute</u>** losses in absolute values…. closer actual output and inflation paths ??
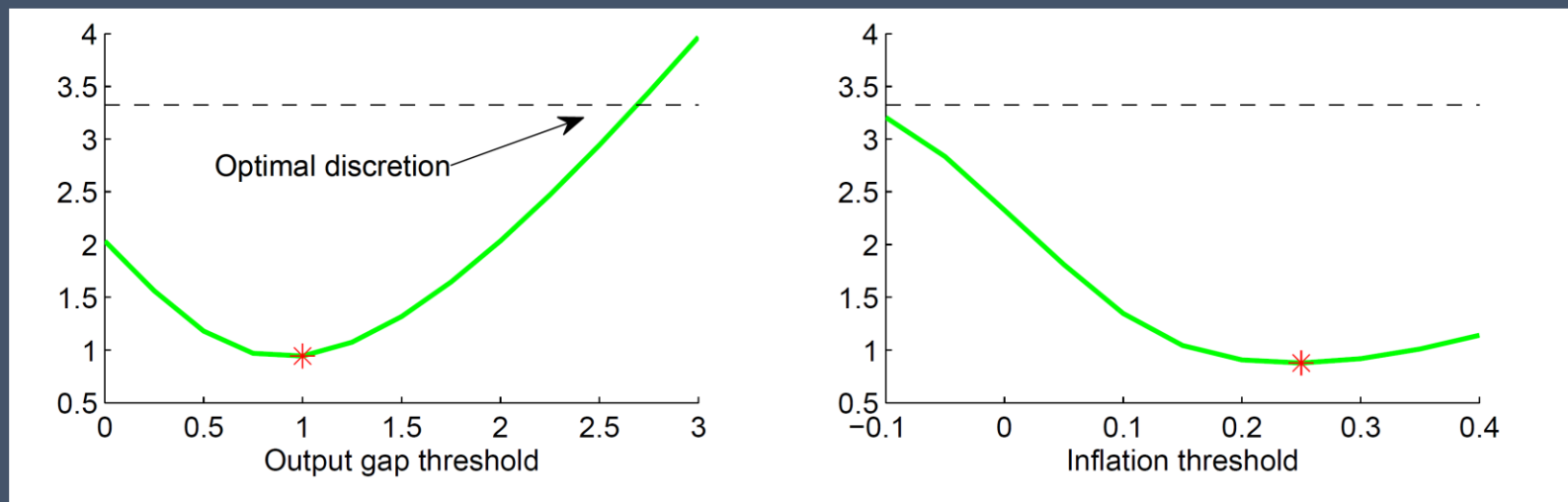
➢ Threshold value is very sensitive to calibration of model and shock parameters…and possibly also temptation to renege

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Effectiveness of FG

➢ Need to distinguish two points:

  ➢How much demand is forward-looking?
  ➢How strong is the intertemporal substitution channel? How big is the EIS?

➢ Very simple reduced-form model

$$c_t = \phi E_t\left(c_{t+1}\right) - \varphi r_t + \alpha_1 c_{t-1} + \varepsilon_t$$

  ➢External habit

$$\phi = \frac{1}{1 + \gamma\left(1 - \sigma\right)}, \text{ and } \varphi = \frac{\sigma}{1 + \gamma\left(1 - \sigma\right)}$$

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Effectiveness of FG

➢ What the data say:

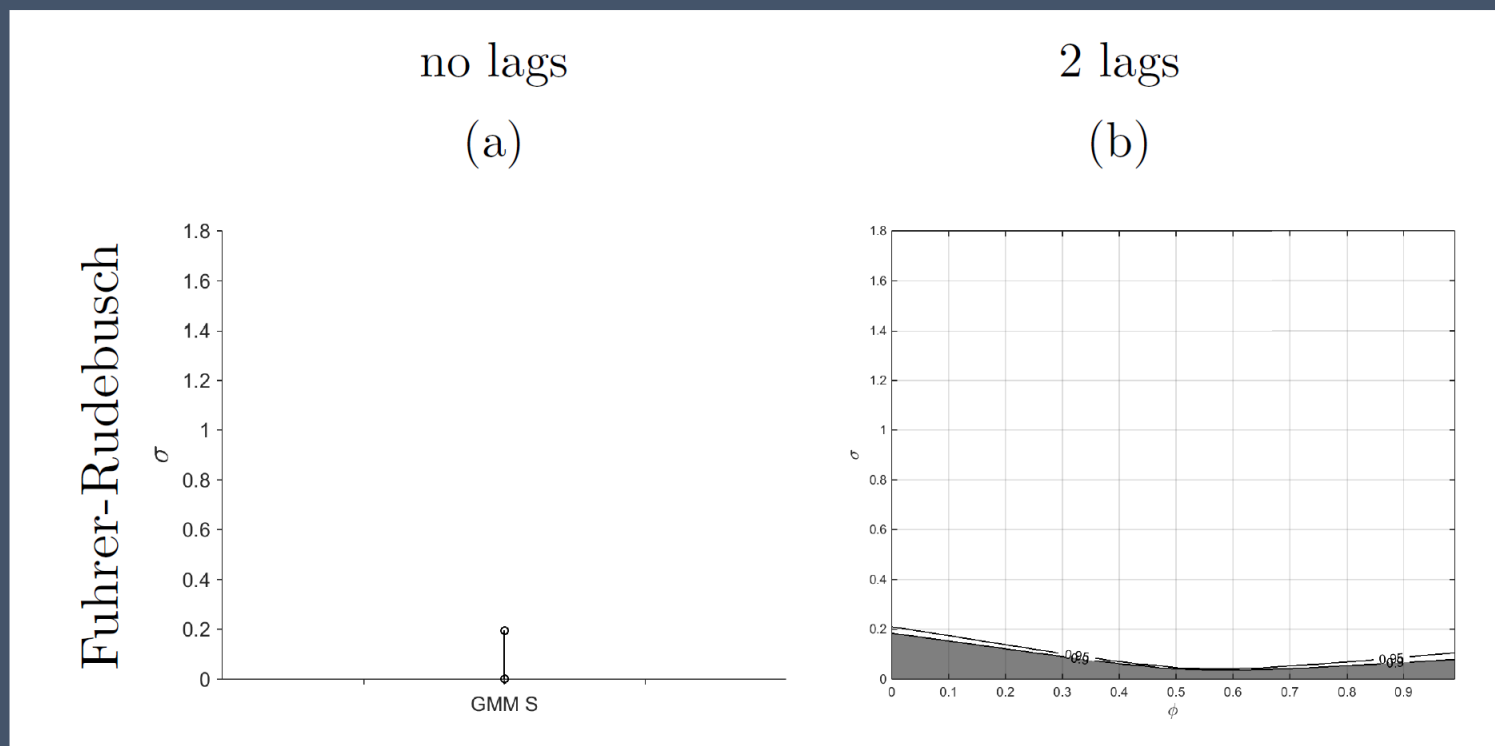➢ How strong is the intertemporal substitution channel? How big is the EIS in aggregate?
ZERO
(Yogo, Havrànek…1/3 for asset holders)

➢ How important is forward-looking in aggregate?
CANNOT SAY
(Fuhrer, Ascari et al.)

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Effectiveness of FG

> ➤ measure of forward-lookingness completely unidentified

> ➤ EIS basically zero

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Implications for data

➢ Use expectations data

    ➢ Given the probabilistic setting, there is a wedge between expectations and realization

    ➢ Check using e.g., options on LIBOR

    ➢ Another implication: Overshooting of the threshold => future expectations sufficiently far ahead should be above the threshold

Conclusions

➤ Important and timely work needed to understand one of the recent major development of monetary policy

➤ I am a bit skeptical of FG…generally….it relies on:
- ➤ Credibility
- ➤ Strong rationality/understanding
- ➤ EIS and forward-lookingness in aggregate demand
- ➤ Results very sensitive to model specification/calibration

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Conclusions

➤ **FG can have the opposite effect** if people do not see the end of it: *"Not nearly enough attention has been paid to the toll these low rates are taking on the ability of investors to save and plan for the future […] consumers saving for retirement need to reduce spending if they are going to reach their retirement income goals and retirees with lower incomes will need to cut consumption as well. A monetary policy intended to spark growth, then, in fact, risks reducing consumer spending."*

➤ **There is a limit to what MP can achieve:** *"To be fair, these actions are the result of central banks being asked to solve economic problems without the help of coherent (and in the case of Europe, cross-border) fiscal policies." (Letter to Shareholders, Larry Fink, BlackRock Chairman)*

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