# Discussion of "*Fiscal policy and forward guidance with preferences over wealth*" by Ansgar Rannenberg

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*The views expressed do not necessarily reflect the official position of De Nederlandsche Bank or the Eurosystem.*

# Aim of the paper

- Study the effects of fiscal policy and forward guidance
- New Keynesian model in which households gain utility from real bond holdings, i.e. have 'preference over wealth' (POW)
- Focus on (post) zero lower bound (ZLB) episodes
- Include credit-constrained (rule-of-thumb) households

# Main mechanism in one equation

- Linerearized Euler equation, iterated forward $n$ periods:

$$\hat{C}_{O,t} = E_t \left\{ \sum_{i=0}^{n} -\sigma_H \left[ \theta \left( \hat{R}_{t+i} - \hat{\pi}_{t+i+1} \right) - \underbrace{\sigma_B \left(1-\theta\right) \hat{b}_{O,t+i}}_{\text{wealth effect}} \right] \right\} + \underbrace{\theta^{n+1} E_t \hat{C}_{O,t+n+1}}_{\text{discount effect}}$$

with $\hat{C}_{O,t}$ consumption, $\hat{R}_t$ nominal interest rate, $\hat{\pi}_t$ inflation and $\hat{b}_{O,t}$ real debt, and where

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- For $\theta < 1$:
  - Discount effect: since accumulating wealth matters, future consumption less important for current consumption
  - Wealth effect: increase in wealth (i.e. higher $\hat{b}_{O,t}$) lowers marginal utility from wealth, which raises current consumption

# Results: temporary fiscal contraction (at ZLB)

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  - ...expect future monetary easing once economy escapes ZLB
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- Hence, POW *strengthens* effects of fiscal policy at and beyond ZLB

  $\Rightarrow$ fiscal policy effective at stimulating economy at ZLB, if committed to remain expansionary even when economy escapes ZLB

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  $\Rightarrow$ can potentially solve 'forward guidance puzzle'

# Comments

- Very nice paper, well written, sound execution
- Results are clear, intuitive and interesting, and extend to more elaborate model (with financial accelerator, capital, real frictions, etc.)
- Straightforward policy implications

# Question: calibration of $\theta$ (1/2)

- First-order condition with respect to real debt, $b_{O,t}$:

$$C_{O,t}^{-\sigma_H^{-1}} = \beta E_t \left[ \frac{R_t}{\pi_{t+1}} C_{O,t+1}^{-\sigma_H^{-1}} \right] + \phi_B b_{O,t}^{-\sigma_B}$$

- In steady state, defining $\theta \equiv \beta R/\pi$:

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- Paper assumes steady-state debt is zero, i.e. $b_O = 0$
- But then
  - $\theta = 1$ if $\sigma_B < 0$
  - $\theta = -\infty$ if $\sigma_B > 0$

# Question: calibration of $\theta$ (2/2)

$$\theta = 1 - \frac{\phi_B b_O^{-\sigma_B}}{C_O^{-\sigma_H^{-1}}}$$

- Why set $b_O = 0$?
- Natural relationship between $\theta$ and $b_O$, e.g. for $\sigma_B > 0$:
  - Fiscal consolidation $\Rightarrow$ reduces $b_O \Rightarrow$ lowers $\theta$
  - Reflects excess demand for safe assets which lowers market rate (or raises 'safety premium' or 'convenience yield')
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- Alternative interpretation of calibrated parameters:
  - Could interpret $\sigma_B$ as slope of demand curve for safe assets (rather than marginal propensity to save)
  - Could interpret $\phi_B b_O^{-\sigma_B} / c_O^{-\sigma_H^{-1}}$ as convenience yield (Krishnamurthy and Vissing-Jorgensen, 2012)

# Other questions, remarks and suggestions

- "[POW] assumption limits horizon of households" (Abstract)
  - A tad misleading
  - POW implications not really the same as in finite horizon models
  - Even though households carry less weight to intertemporal substitution, they still care about future savings and accumulation of wealth
- In FG exercise, why not consider deterministic interest rate peg? (Carlstrom et al., 2015)
- $r_t^{net}$ interpreted as 'preference shock', 'risk premium shock', 'natural interest rate shock'
  - Why not consider shock to $\phi_B$?
  - Natural interpretation, i.e. shock to demand for safe assets
  - Empirically relevant for decline in natural interest rate (Del Negro et al., 2017; Gerali and Neri, 2017)