

Comments to
Three theories of natural rate dynamics

by Galo Nuño

Alvaro Aguirre
Central Bank of Chile

The views expressed in this presentation do not necessarily represent those of the Central Bank of Chile or its Board members.

Plan

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- ▶ Unifying theme
 - Shocks to supply and demand for funds → r^* dynamics
 - Central role of precautionary savings
 - How monetary policy deals with a changing r^*
 - Role of ZLB... second-round effects through prec. savings

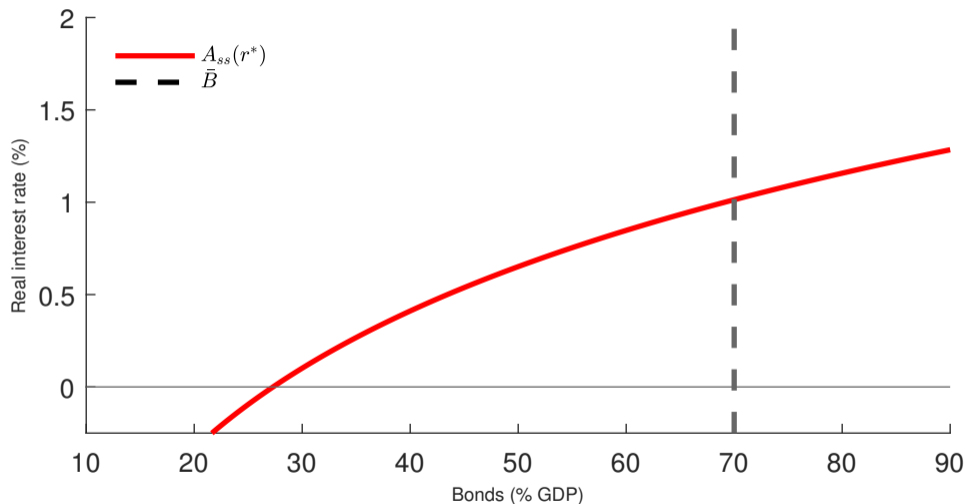
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- ▶ Main (very general) comments
 - Substitution between assets
 - Precautionary savings and aggregate shocks

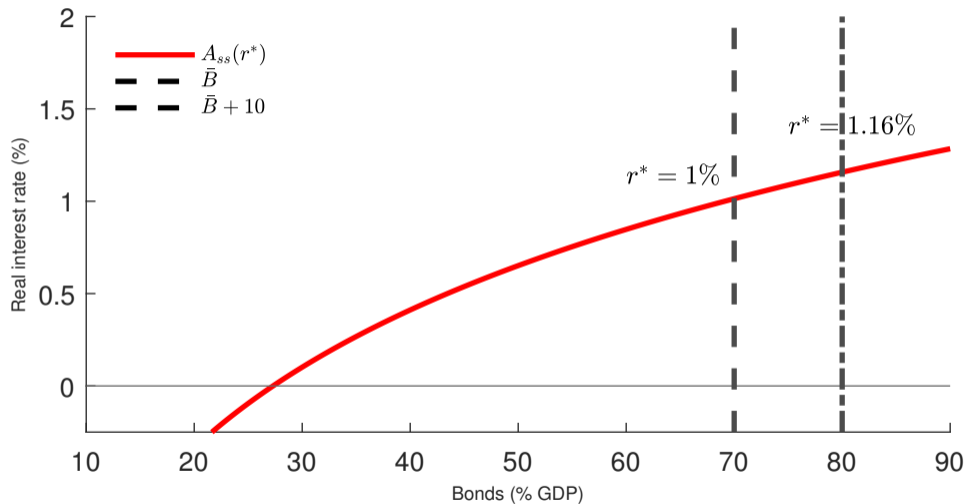
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- ▶ Speaking of prec. savings: policy uncertainty as a driver of natural interest rates

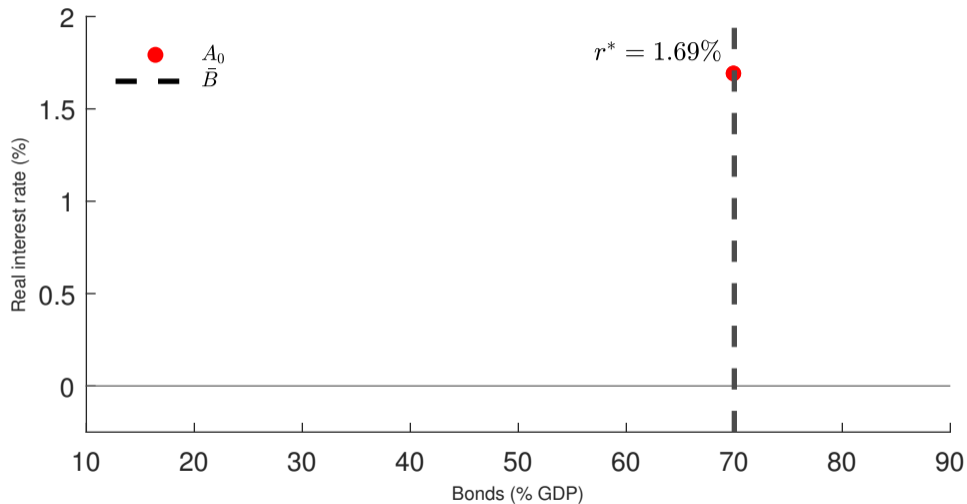
The natural rate, the stock of public debt and prec. savings



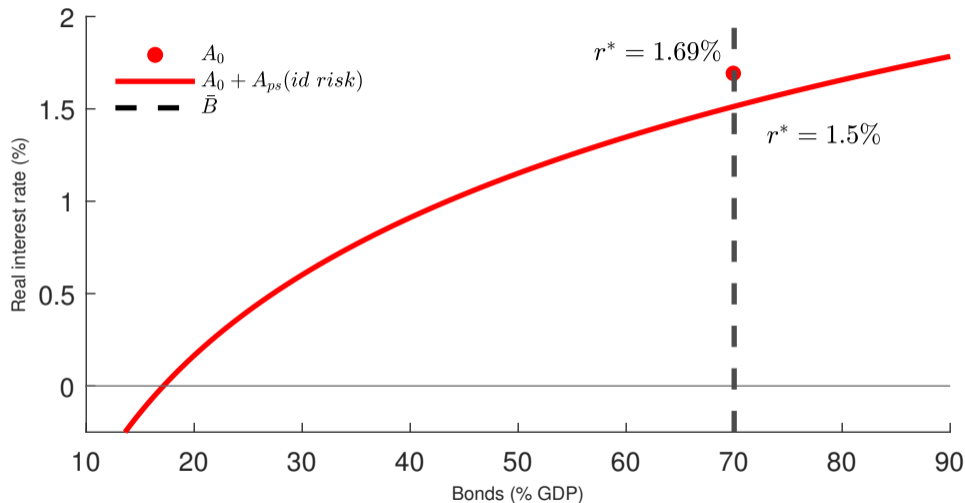
Paper 1: The natural rate and public debt



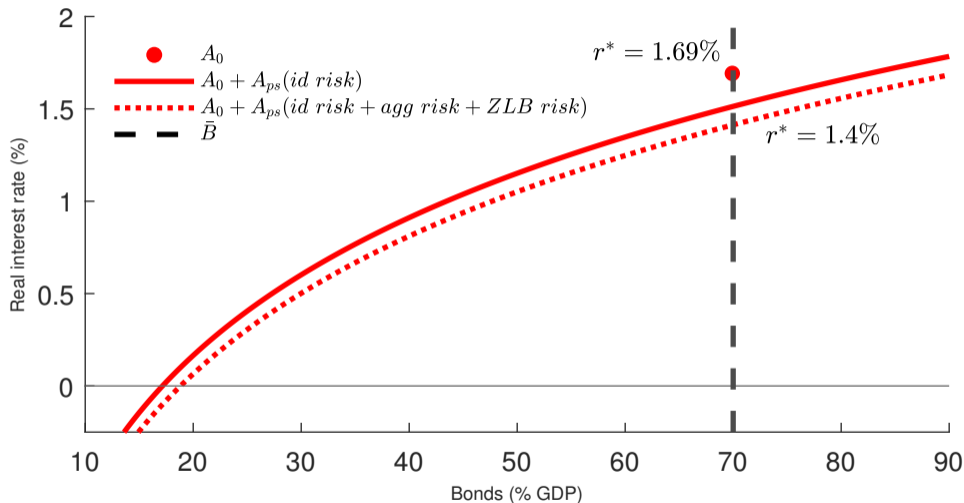
Paper 2: The natural rate and Prec. Savings



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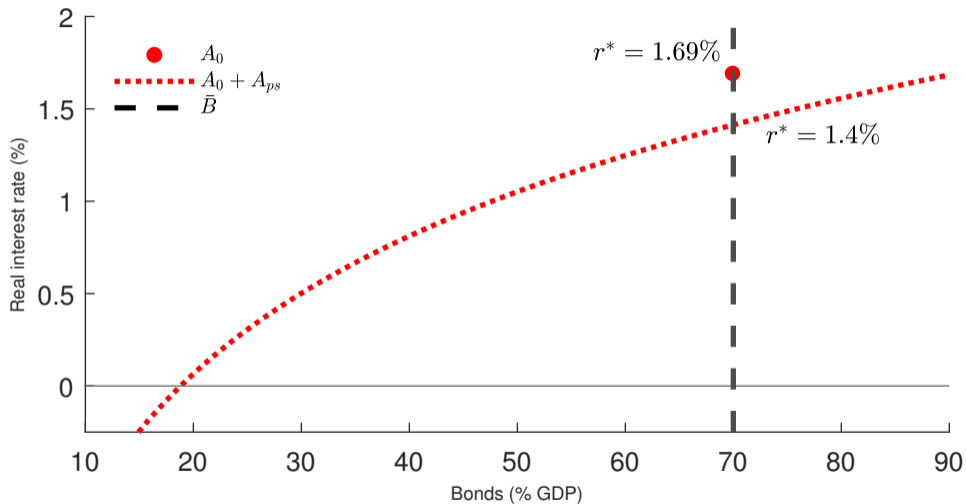


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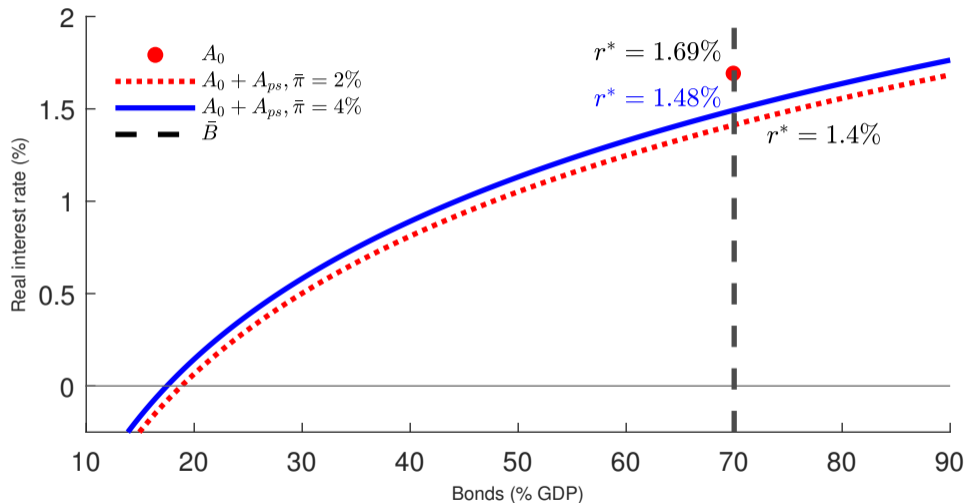


Paper 2: Inflation Target, Inequality and Prec Savings

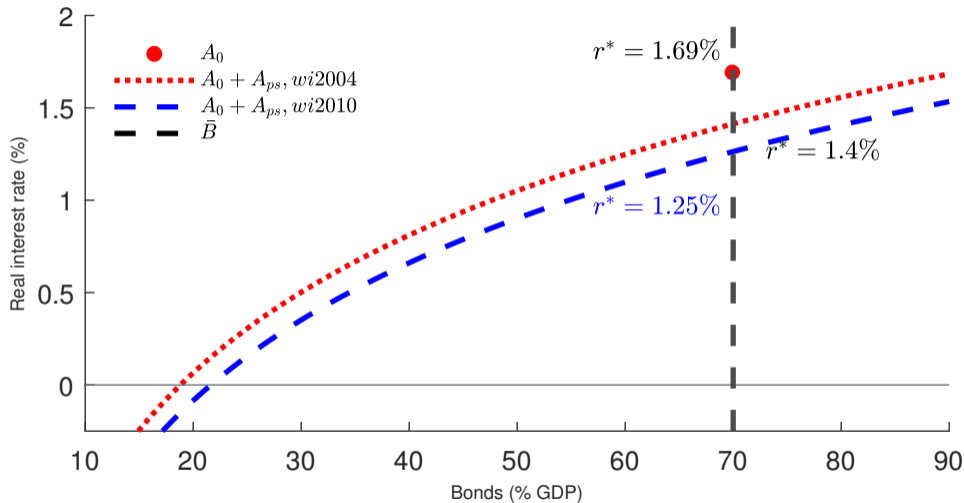
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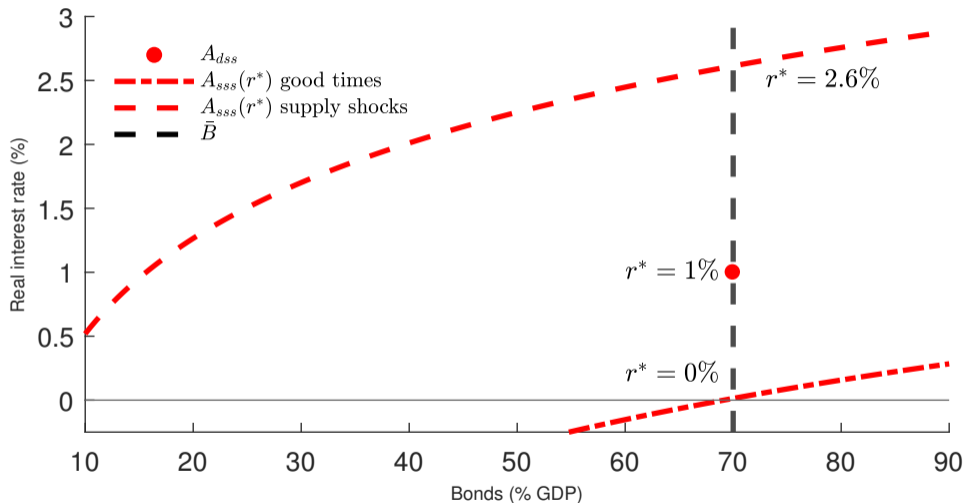
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Paper 3: The natural rate and supply (cost-push) shocks



Comment 1: Inelastic Supply

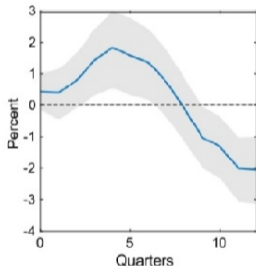
- ▶ The adjustment is mostly through the interest rate (fully with ΔA)

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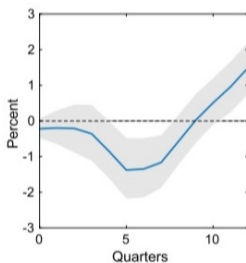
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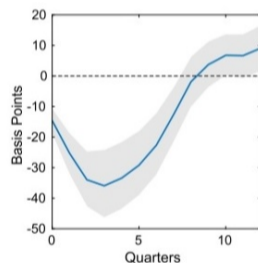
- ▶ The adjustment is mostly through the interest rate (fully with ΔA)
- ▶ Bayer et al. (2019) shows the adjustment to income risk shocks
- ▶ There is substitution: investment falls, liquid assets increase



Portfolio Liquidity



Investment, I_t



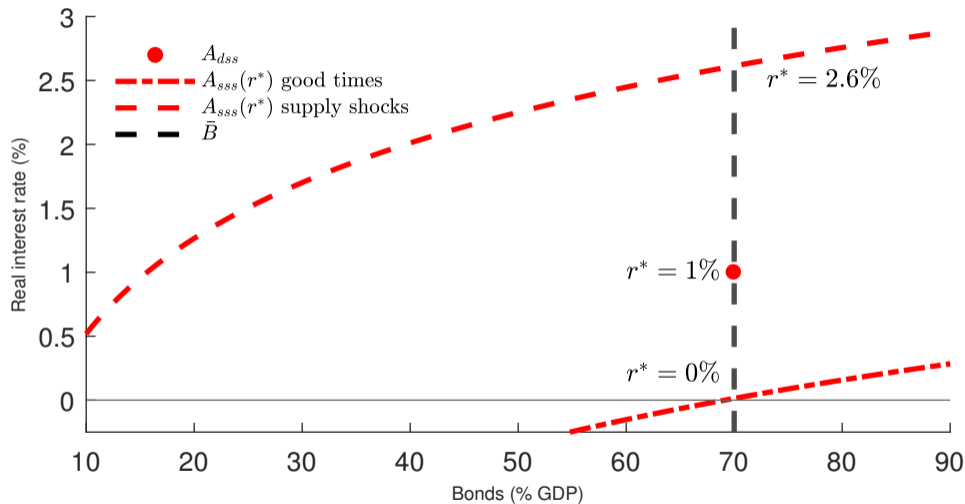
Nominal Rate, R_t^b

Source: Bayer et al. (2019) "Precautionary Savings, Illiquid Assets, and the Aggregate Consequences of Shocks to Household Income Risk"

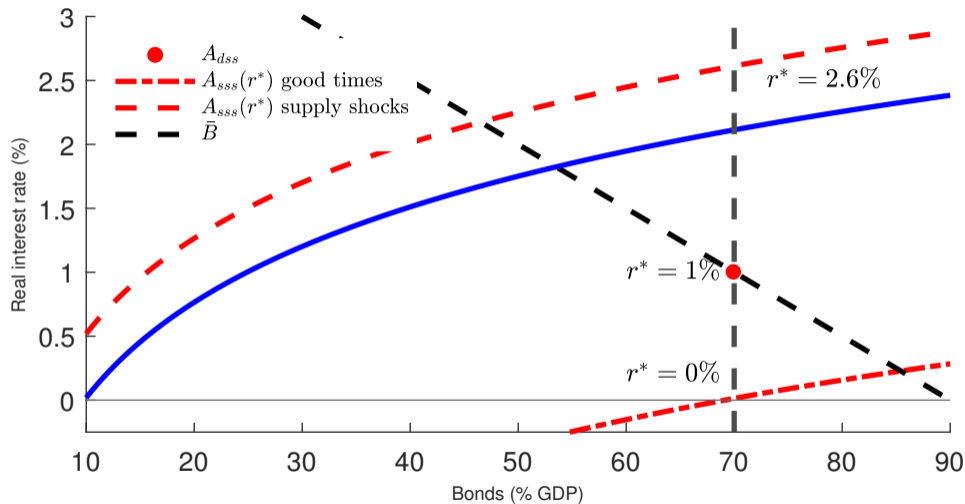
Comment 2: The Strength of Precautionary Savings

- ▶ Correlation between idiosyncratic and aggregate risk is absent
- ▶ Particularly relevant with persistent supply shocks (geopolitics, COVID, etc.)
- ▶ During these episodes risk may be higher than in normal times
- ▶ Countercyclical risk and prec. savings offset the movements in interest rates

Paper 3: The natural rate and supply (cost-push) shocks



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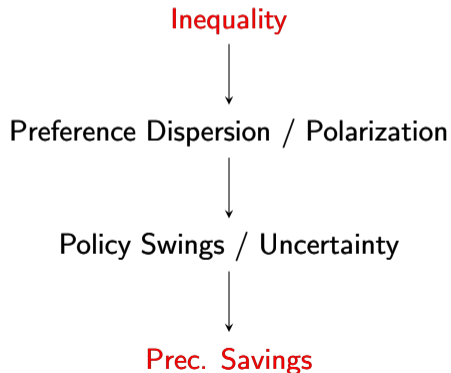


Inequality and Prec. Savings: An Alternative Channel

*“Any factor that changes prec. savings
will affect real rates and the effectiveness of MP...”*

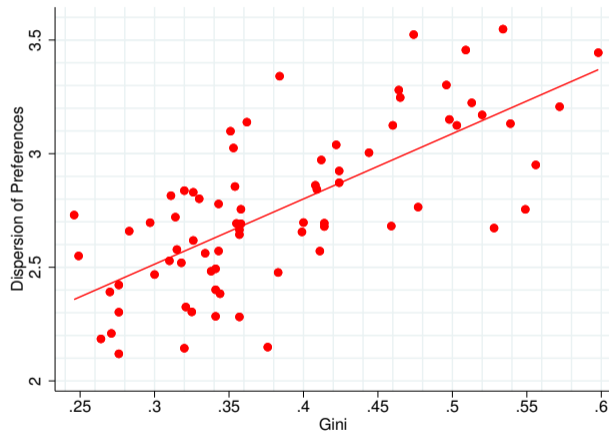
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Inequality and the Dispersion of Preferences for Redistribution

- ▶ Cross-section correlation using WVS, democratic countries.



Source: Aguirre(2024). Based on data from WVS and WDI. Only democratic countries.

Inequality and Policy Divergence

	(1)	(2)	(3)	(4)
	Pub. Transfers (% avg income)	Pub. Transfers (% avg income)	Tax Revenue (% GDP)	Tax Revenue (% GDP)
Lag Dep. Var.	0.309* (1.87)	0.299* (1.79)	0.792*** (27.30)	0.789*** (25.78)
Party in Power $\{-1, 0, 1\}$	-0.198 (-1.06)	0.825 (0.59)	0.0290 (0.27)	-0.0241 (-0.04)
Party in Power $\{-1, 0, 1\}$ x Gini (0, 1)		-10.71** (-2.34)		-2.494*** (-3.20)
Gini (0, 1)		-3.953 (-0.34)		-1.452 (-0.65)
Unemployment Rate	0.264*** (2.82)	0.268** (2.75)	-0.0165 (-0.42)	-0.0189 (-0.47)
Gap Y	-13.46** (-2.21)	-14.06** (-2.30)	-3.866 (-1.07)	-4.207 (-1.15)
R^2	0.914	0.916	0.786	0.787
N_g	23	23	43	43
Observations	254	254	900	900

Sample of Democratic Countries. Fixed and time effects, and country-specific linear trends included but not shown.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Source: Aguirre(2024)

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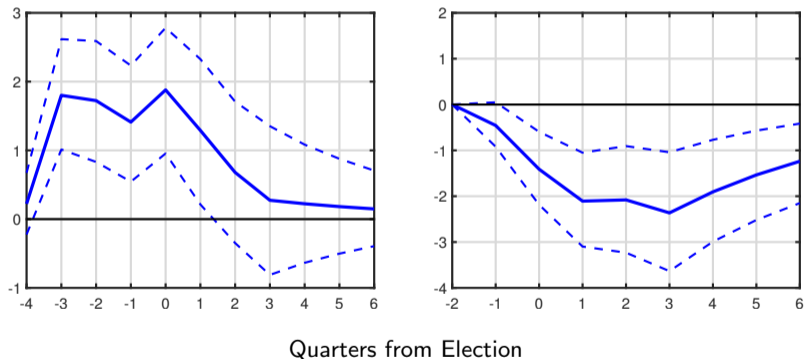
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Inequality, Elections and Precautionary Savings

- ▶ Elections as triggers of uncertainty

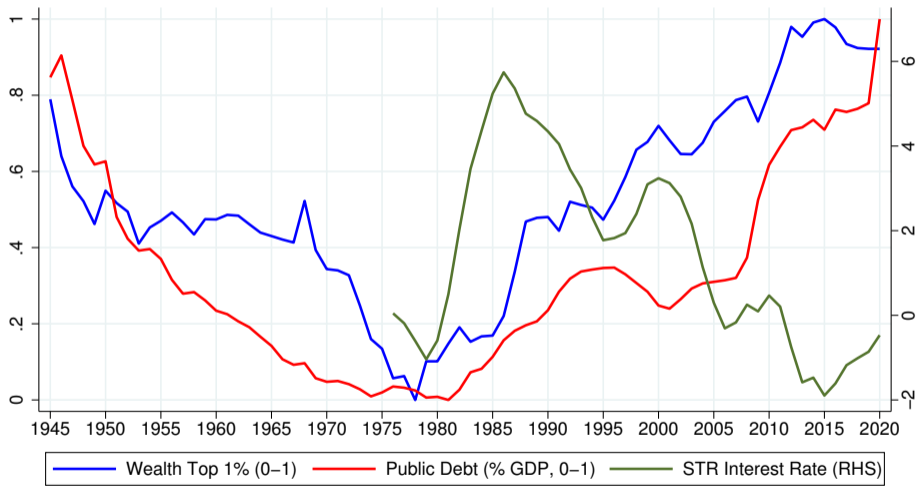
Inequality, Elections and Precautionary Savings

- ▶ Elections as triggers of uncertainty
- ▶ Liquidity (left) and Consumption (right) during US elections in times of high ineq.



Source: Aguirre(2023)

Risks



Source: WID and Macroeconomic Lab.

THANK YOU