

Online Appendix for

Hawks, Doves, and the Dot Plot: Heterogeneous FOMC Reaction Functions

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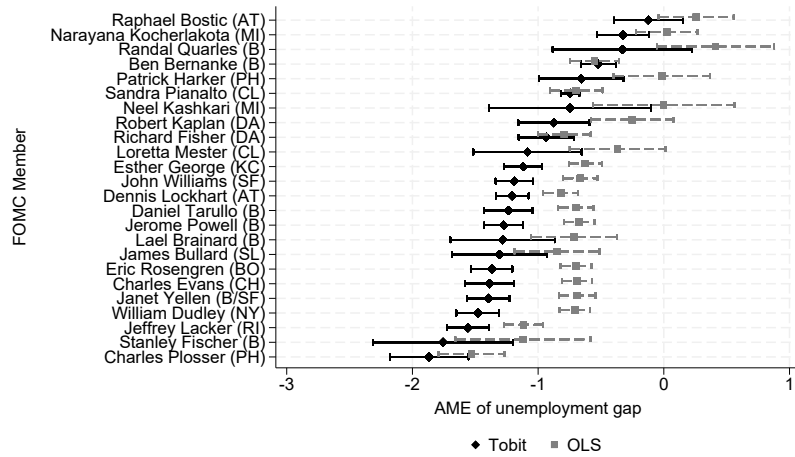
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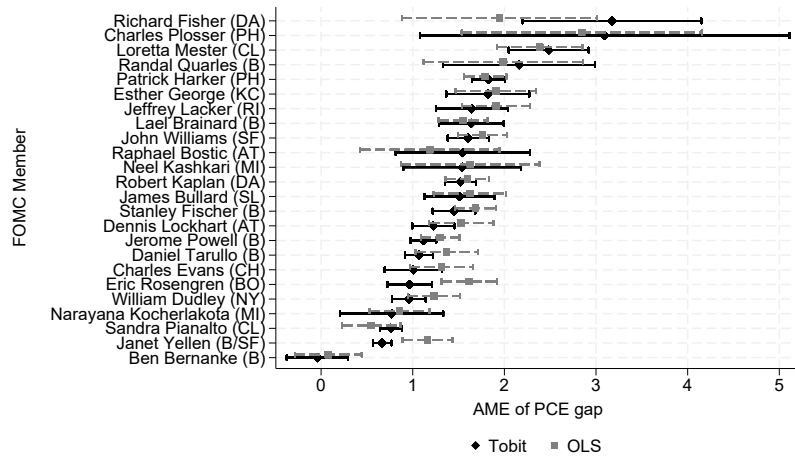
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Appendix A: Robustness

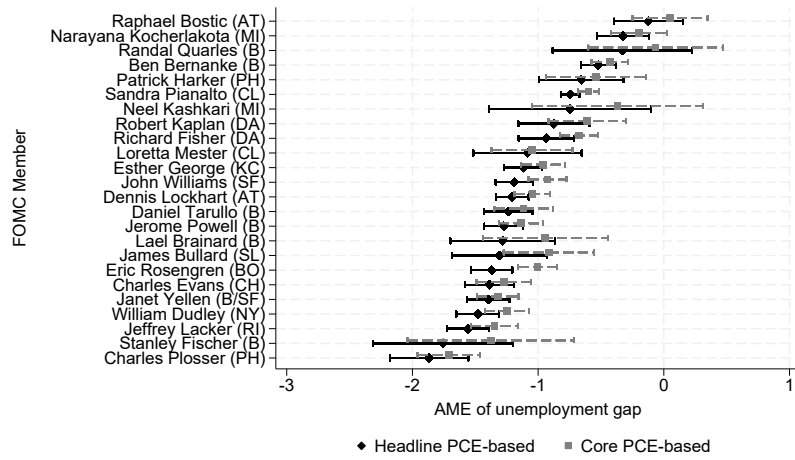


(a) Graph 1: Unemployment gap AMEs

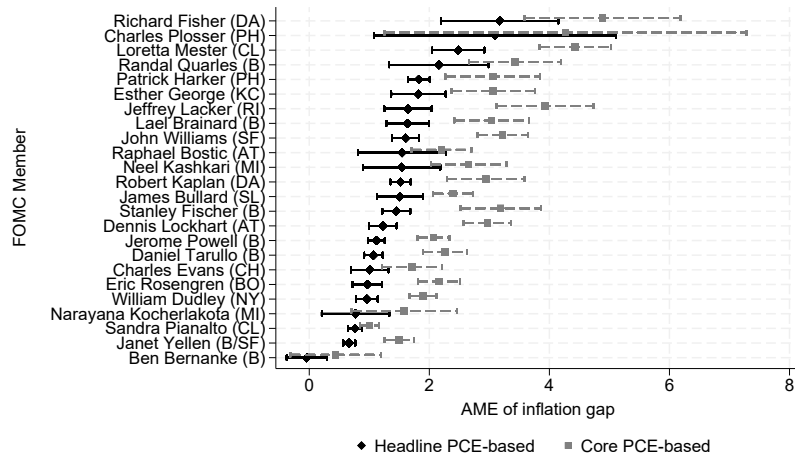


(b) Graph 2: Inflation gap AMEs

Figure 1: Individual policy rule AMEs: Tobit vs OLS

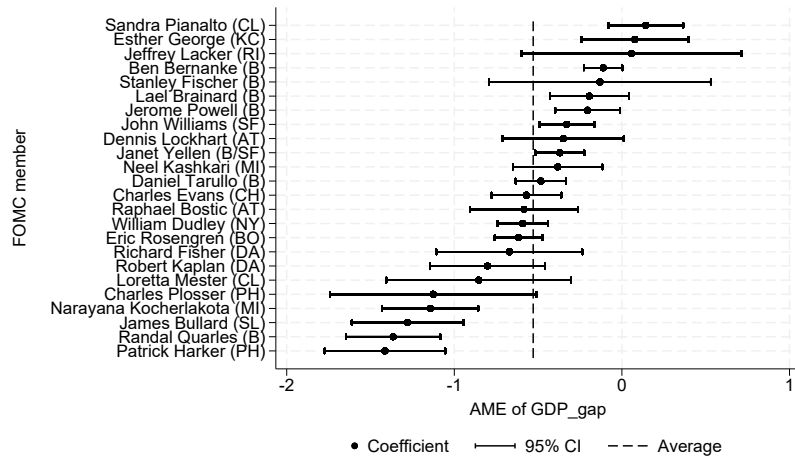


(a) Graph 1: Unemployment gap AMEs

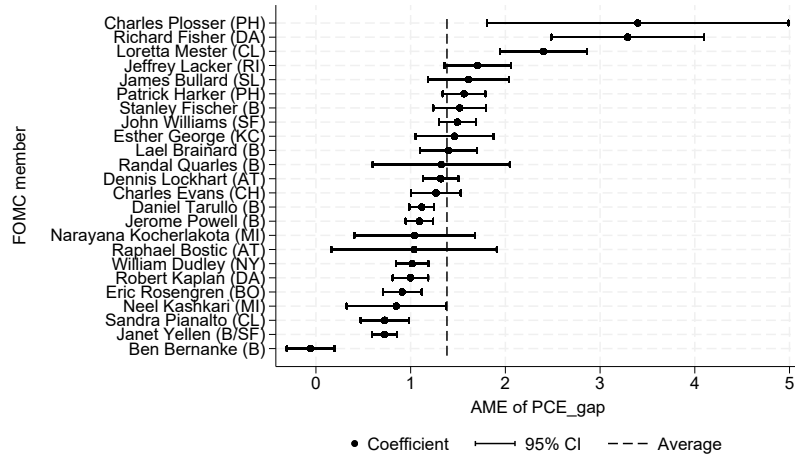


(b) Graph 2: Inflation gap AMEs

Figure 2: Individual policy rule AMEs: Headline vs Core Inflation

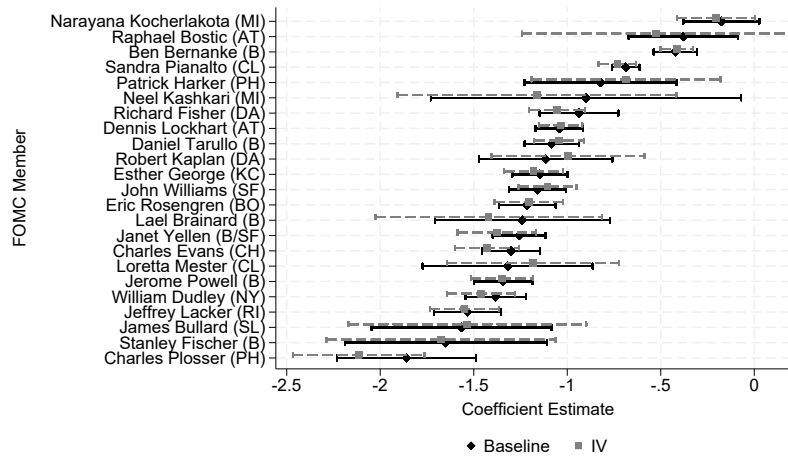


(a) Graph 1: GDP gap coefficient

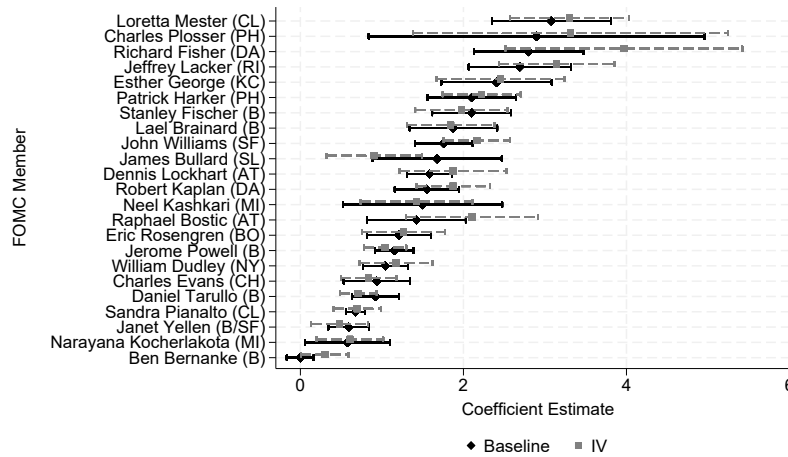


(b) Graph 2: Inflation gap coefficient

Figure 3: Individual policy rule AMEs with the GDP gap



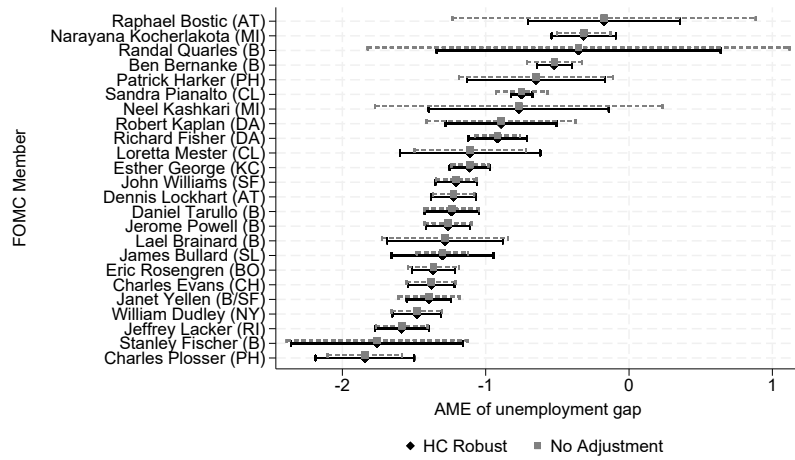
(a) Graph 1: Unemployment gap AMEs



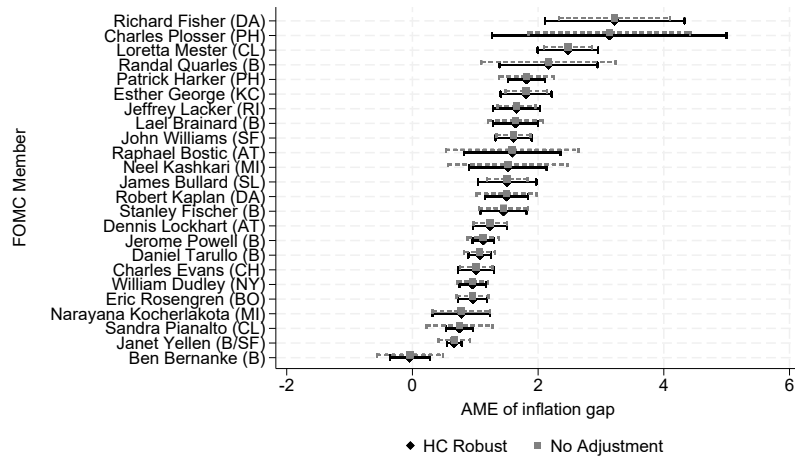
(b) Graph 2: Inflation gap AMEs

Figure 4: Individual policy rule AMEs: Baseline vs Lagged Inputs

Notes: Because the lagged-input model is estimated on a smaller sample, we compute AMEs for both models on the same restricted sample for comparability.

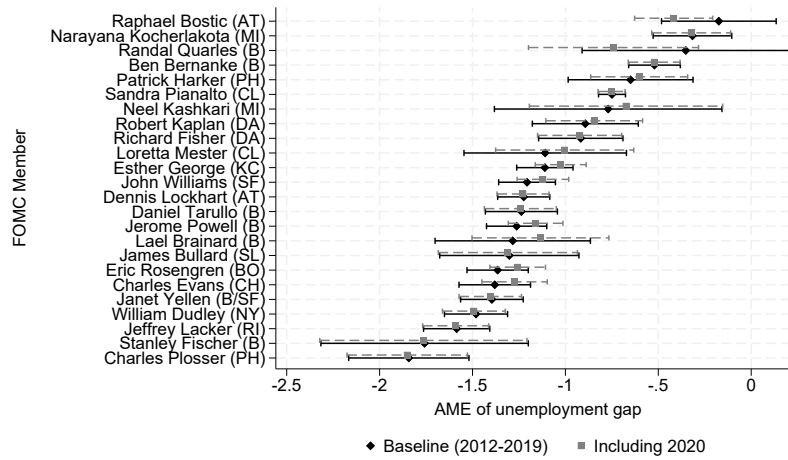


(a) Graph 1: Unemployment gap AMEs

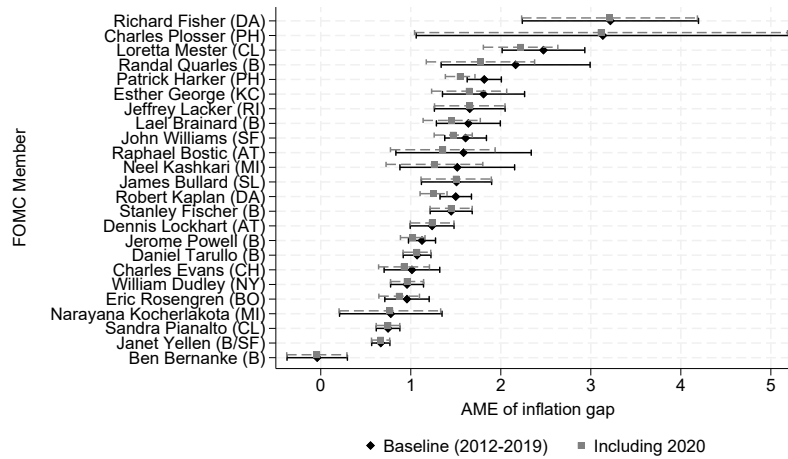


(b) Graph 2: Inflation gap AMEs

Figure 5: Individual policy rule AMEs: Heteroskedasticity-robust standard errors



(a) Graph 1: Unemployment gap AMEs



(b) Graph 2: Inflation gap AMEs

Figure 6: Individual policy rule AMEs: Baseline (2012-2019) vs incl. Covid

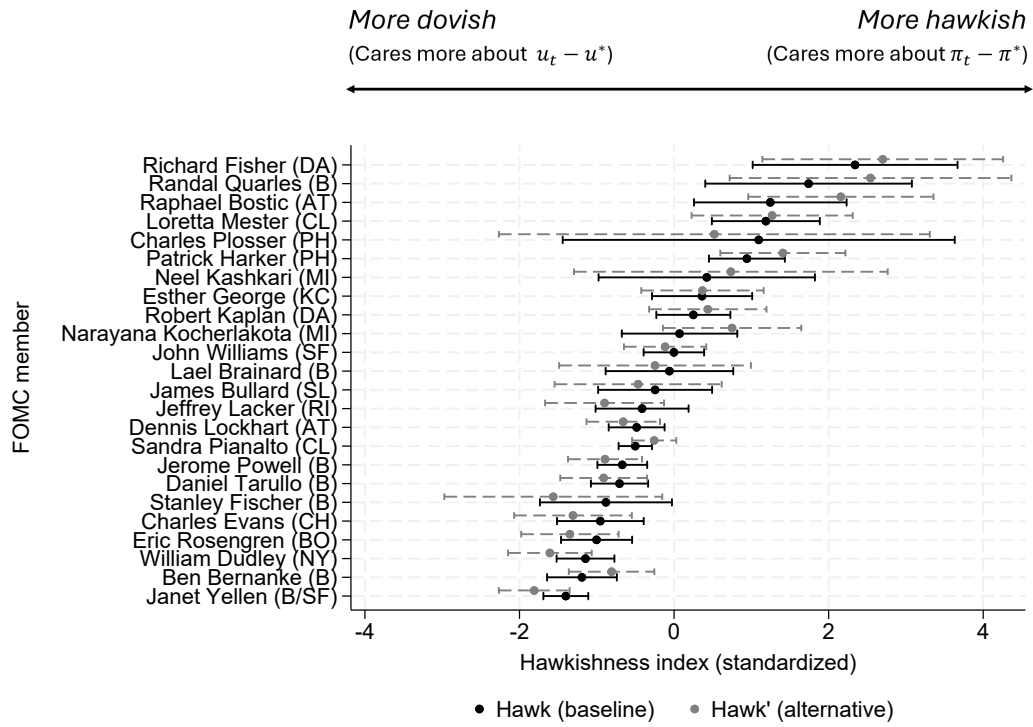


Figure 7: Estimated preferences measure: *Hawk* versus *Hawk'*

Appendix B: Descriptive Statistics

Table 1: Descriptive Statistics of individual characteristics of selected FOMC members

	mean	sd	min	max
Male (1 = Male)	0.83	0.38	0.00	1.00
Freshwater University	0.21	0.41	0.00	1.00
Saltwater University	0.29	0.46	0.00	1.00
Neither tradition	0.50	0.51	0.00	1.00
PhD in Economics	0.58	0.50	0.00	1.00
J.D. degree	0.13	0.34	0.00	1.00
Other degree (BA, MBA)	0.29	0.46	0.00	1.00
Age	59.17	6.11	44.50	72.47
Tenure (Years in Federal Reserve)	14.00	11.24	1.31	33.41
Published in Top 5 Econ Journal (1 = Yes)	0.54	0.51	0.00	1.00
Board Member (1 = Yes)	0.29	0.46	0.00	1.00
Observations	24			

Notes: One observation per participant; $N = 24$. The sample covers 2012–2019 and the members correspond to those used in the main analysis. Age and tenure are each participant’s average over their own meetings in the estimation sample; the estimation-sample means, at which the marginal effects in Appendix C are evaluated, are 59.1 and 15.5 respectively.

Appendix C: Sources of heterogeneity

Table 2: Contribution of individual characteristics to explaining cross-member heterogeneity in policy-rule slopes

Characteristic	ΔAIC if dropped	Univariate AIC
Experienced inflation	40.1	2901.6
Graduate-school tradition	21.6	2923.3
Highest degree	21.5	2924.8
District unemployment gap	19.9	2889.4
Board membership	16.9	2938.9
Top-5 publication	15.5	2936.1
Tenure	9.6	2939.6
Committee Chair	6.0	2933.6
<i>Reference models (AIC):</i>		
Constant slope (no characteristics)		2942.7
Selected model (characteristics above)		2780.7
Individual slopes (one per member)		2778.6
Share of the constant-to-individual gap closed: 98.7%		

Notes: The model replaces the member-specific gap slopes of the baseline reaction-function Tobit (2012–2019 sample) with a single common slope shifted along the characteristics shown, retaining the censoring at the effective lower bound, the member and meeting fixed effects, the voting-status controls, and the clustering of the baseline specification. The characteristics reported are those selected by minimizing the Akaike Information Criterion (AIC). Graduate-school tradition and highest degree each enter as two indicator variables (“freshwater”/“saltwater” and PhD/J.D., respectively). ΔAIC if dropped is the increase in the model’s AIC when that single characteristic is removed and the model is re-estimated; because the AIC penalizes additional parameters, a larger positive value indicates a greater contribution to fit net of parameter cost, and the table is ordered accordingly. *Univariate AIC* is the AIC of a model in which that characteristic is the only slope shifter (alongside the common slope and all controls); a lower value indicates better standalone fit. The two columns need not agree. The three reference models bound the exercise: the constant-slope model estimates a single slope for all members, the individual-slopes model estimates a separate unrestricted slope for each member (the best attainable fit), and the selected model lies much closer to the individual-slopes model; the share closed equals $(AIC_{\text{constant}} - AIC_{\text{selected}})/(AIC_{\text{constant}} - AIC_{\text{individual}})$. Because several characteristics overlap—the district unemployment gap is zero for all Board members, and every Committee Chair is a governor—the individual ΔAIC values for district conditions, Board membership, and the Chair indicator are not cleanly separable and are individually understated. The table concerns predictive contribution to fit only and does not identify the direction of any characteristic’s effect.

Table 3: Reaction-function channel: intercept vs. slope, by forecast horizon

Horizon (quarters)	N	Intercept (%)	Slope (%)
1	135	29.1	70.9
2	120	35.4	64.6
3	117	35.3	64.7
4	118	36.8	63.2
5	135	40.3	59.7
6	120	51.2	48.8
7	117	53.9	46.1
8	144	50.0	50.0
9	135	58.8	41.2
10	94	69.7	30.3
11	117	68.2	31.8
12	144	64.9	35.1
13	135	75.6	24.4
14	78	94.3	5.7
Pooled	1,709	48.3	51.7

Notes: The reaction-function channel from the decomposition in the main text is split into an intercept component (members differ in their fitted intercept α_i , holding the gap slopes at their cell-average) and a slope component (members differ in their gap slopes γ_i, ω_i , holding the intercept at its cell-average), both computed within meeting $\times$ horizon cells over the 2012–2019 sample. Each component is expressed as a share of the two components’ combined variance and the two sum to 100; a covariance between them is excluded. The intercept captures differences in the perceived long-run (neutral) rate; the slopes capture differences in how members respond to the inflation and unemployment gaps. N is the number of individual projections used at each horizon.

Appendix D: Real natural rate

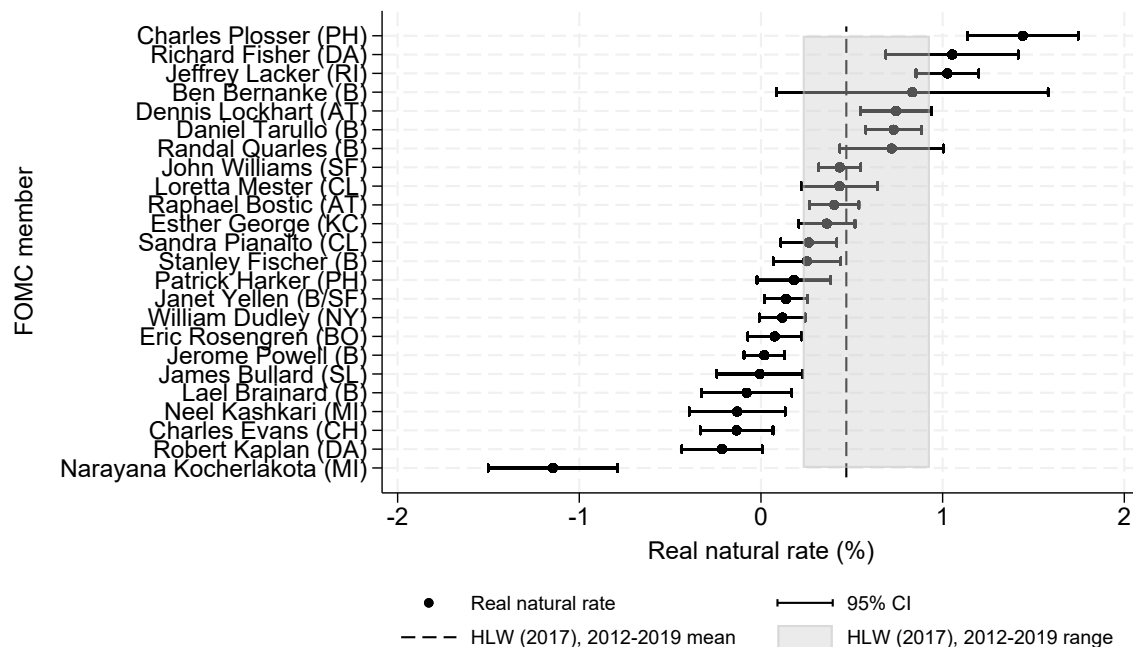


Figure 8: Average real natural rate estimates by FOMC member.

Notes: Average real natural rates by FOMC member are estimated as the predicted (forecasted) policy rate when both the forecasted inflation gap and the unemployment rate gap are set to zero, with time effects held at their observed values. The real rate is then obtained by subtracting each member's corresponding average long-run inflation forecast. For reference, the 2025Q1 vintage average estimate for 2012–2019 from Holston, Laubach, and Williams (2017) is shown. Note that real-time estimates vary substantially and were below zero for much of 2012–2015, resulting in some members having negative estimated real natural rates.