Cash Flow Duration, Financial Constraints, and the Stock Market Sensitivity to Monetary Policy

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This paper in a nutshell

1. Settles a long-standing debate showing that growth stocks are more sensitive to monetary policy than value stocks

2. This sensitivity is attributed to growth stocks' longer cash flow duration rather than conventional measures of financial constraints

3. Cash flow duration induces revisions to discount rates, the key driver of this dynamic

4. Results are consistent with an asset pricing model with heterogeneity modelled by the timing of dividend payment

1. *Growth stocks* respond more to exogeneous monetary policy surprises

Firm-level analysis

	(1)	(2)	(3)	(4)
market/book	0.0001	−0.02*	0.002	−0.02*
	(0.01)	(0.01)	(0.01)	(0.01)
policy	−4.97**	−4.87**		
	(2.06)	(2.01)		
market/book*policy	−0.98***	−1.06***	−0.79***	−0.89***
	(0.34)	(0.32)	(0.30)	(0.29)
Constant	0.24***			
	(0.06)			
N	512,741	512,741	512,741	512,741
R^2	0.004	0.15	0.05	0.19
Firms FE	No	Yes	No	Yes
Time FE	No	No	Yes	Yes

Notes: Regression of stock returns on monetary policy surprises from Nakamura and Steinsson (2018) and market-to-book ratio. Sample spans from 1990 to 2018. Standard errors are two-way clustered.

Portfolio analysis

7.1 pp difference in returns between last and first decile

Notes: Portfolios are sorted quarterly based on market-to-book ratio and regressed on monetary policy surprises from Nakamura and Steinsson (2018). Gray area indicates 90% confidence interval.

2. *Longer duration* explains the higher sensitivity

	(1)	(2)	(3)	(4)
duration	−0.06	−0.04		
	(0.05)	(0.04)		
market/book		−0.01		−0.01
		(0.01)		(0.01)
finconstraint			0.01	0.01
			(0.04)	(0.04)
duration*policy	−2.78***	−2.39***		
	(0.79)	(0.67)		
market/book*policy		−0.26		−0.52***
		(0.19)		(0.20)
finconstraint*policy			3.22***	2.68***
			(1.18)	(1.01)
N	271,678	271,678	301,382	301,382
R^2	0.63	0.63	0.56	0.56

Notes: Regression of returns on policy surprises and accounting variables. Financial constraint measure is from Schauer et al. (2019) and duration from Gonçalves (2021).

3. Campbell & Shiller decomposition confirms *duration-based explanation*

Excess Return — Decreasing

Discount Rate — Increasing

Cash Flow — Flat

Notes: Portfolios are sorted quarterly based on market-to-book ratio, decomposed according to Campbell & Shiller linearization, and regressed on monetary policy surprises from Nakamura and Steinsson (2018). Gray areas indicates 90% confidence interval.

4. Results are in line with a duration-based asset pricing model and the *value premium*

7.9 pp difference in returns between last and first decile

Notes: Response of price-dividend ratio sorted portfolios to monetary policy implied by the model. The model is from Lettau and Wachter (2011) extended for high-frequency monetary policy from Pflueger and Rinaldi (2021).

Important remarks

• Results underline the importance of duration as a policy transmission channel and as a driver of differences in growth and value stocks

• Policy makers should factor in duration to predict the effects of their policy decisions

• Portfolio managers may align their strategies according to their beliefs about the Fed's decisions

• The paper presents various robustness checks and additional analyses including a broader range of duration and financial constraint measures, index-level analysis, dynamic monetary policy responses, etc.
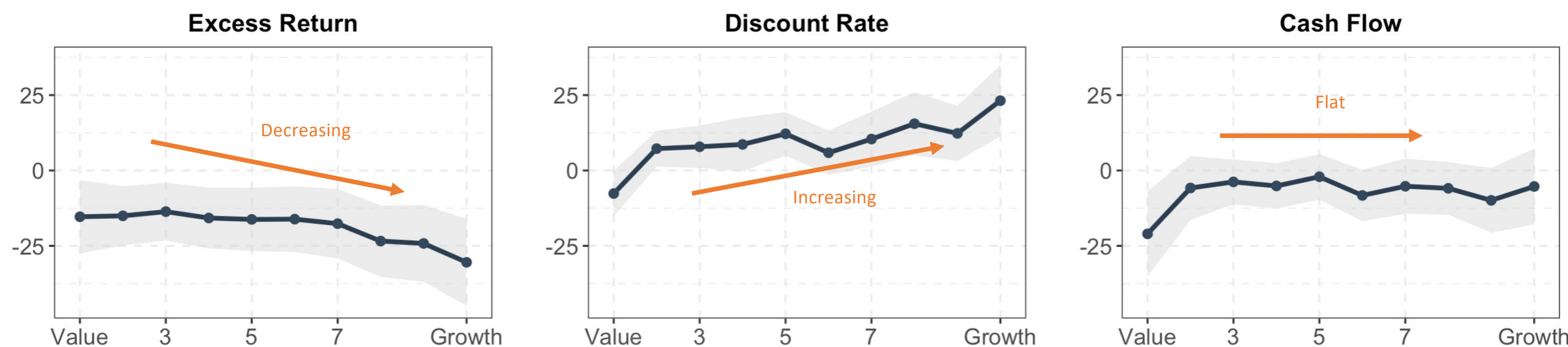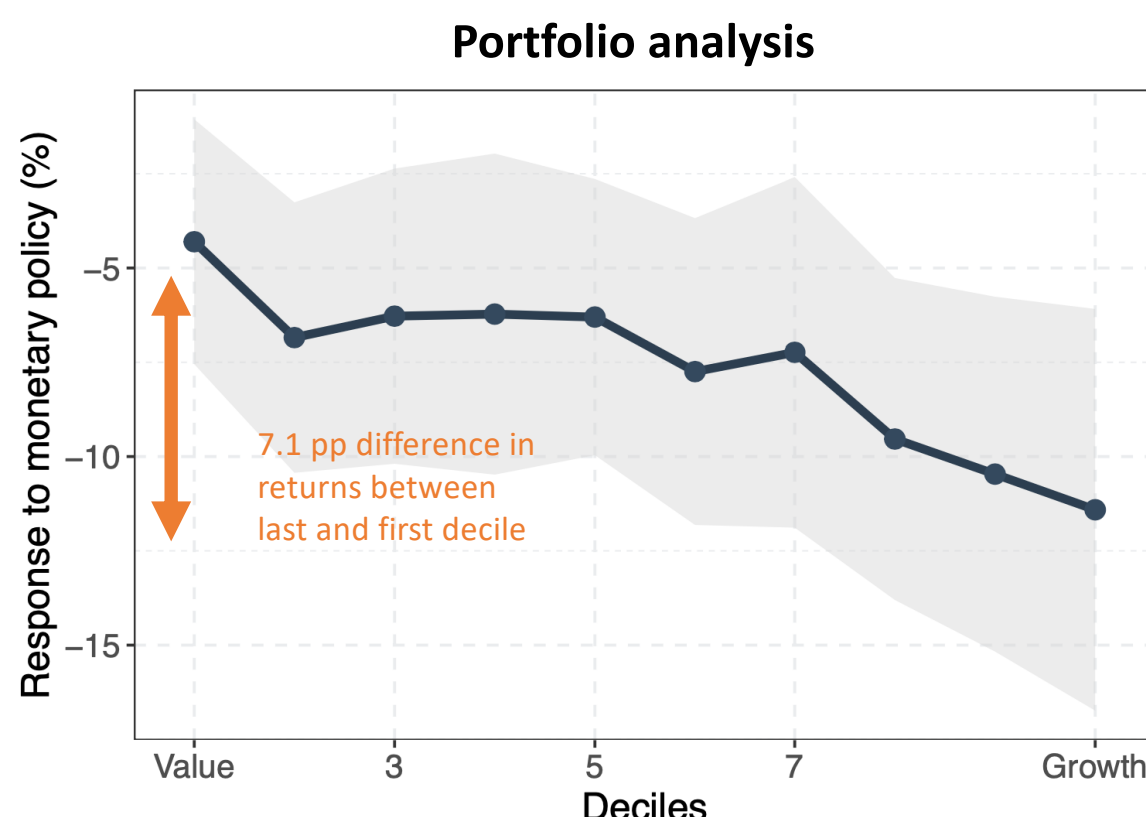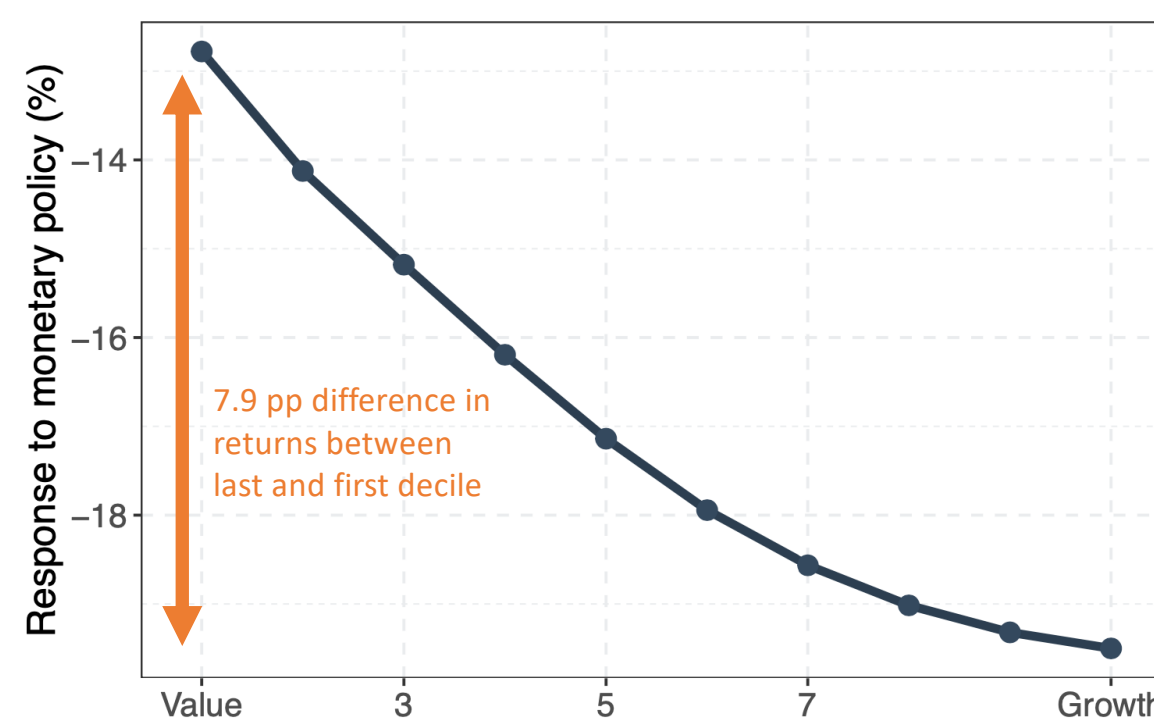
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