The Value of Institutional Research: Fund Managers and Monetary Policy Expectations in China

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* The views in this paper are solely the responsibility of the authors and should not be interpreted as reflecting the views of the Board of Governors of the Federal Reserve System or any other person associated with the Federal Reserve System.

What we do and find in the paper

- Infer Chinese mutual fund managers' near-term expectations of monetary policy via language processing of their written reports
- Consensus manager forecast has strong predictive power for stance of monetary policy
- Forecast accuracy related to manager education and compensation
- Money fund managers adjust duration based on policy expectation
- Fund managers' policy forecast accuracy improves fund returns

Related literature

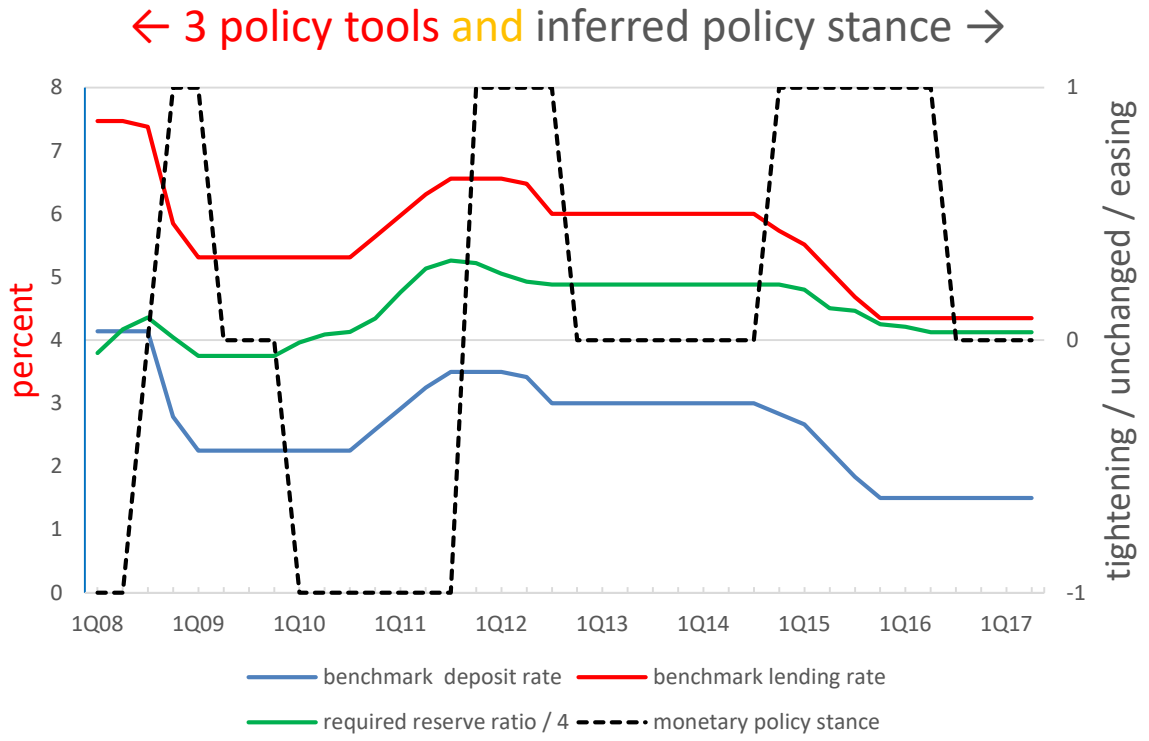
- Does skill in investment management improve fund performance? Grossman and Stiglitz (1980), Carhart (1997), Domian and Reichenstein (1998), Dahlquist, Engstrom, and Soderlind (2000), Bhattacharya and Galpin (2011), Kacperczyk, van Nieuwerburgh, and Veldkamp (2014, 2016)

- Monetary policy anticipation and money fund returns: Kane and Lee (1983)

- Characterizing Chinese monetary policy: Xie and Luo (2001), Chen, Funke, and Paetz (2012), Zhang (2012), Chen, Ren, and Zha (2018)

First: construct discrete indicator of PBoC policy stance

- Use benchmark deposit and lending rates and required reserve ratio
- Discrete measure {-1,0,1}: tightening (-1) or easing (1) if at least one of these policy tools increased (-1) or declined (1) from prior period



Text-based indicator of policy expectation

- Fund managers discuss near-term prospects for economy and markets in mandatory public "Market Outlook" reports; focus on semantic units with:
  - a noun like "interest rate" related to monetary policy {-1, 1}
  - with an adjective or verb that indicates direction {-1, 0, 1}
  - and (sometimes) an adverb that can scale down strength {0, 0.5, 1}
  - Leads to belief indicator of tightening/unchanged/easing on [-1,1]

Examples:

$$E_t^i(\Delta mp_{t+1}) = \begin{matrix} -1 & interest\ rate \\ 1 & money\ supply \end{matrix} \times \begin{matrix} -1 & decrease \\ 0 & same \\ 1 & increase \end{matrix} \times \begin{matrix} 0 & unlikely \\ 0.5 & mildly \\ 1 & strongly \end{matrix}$$

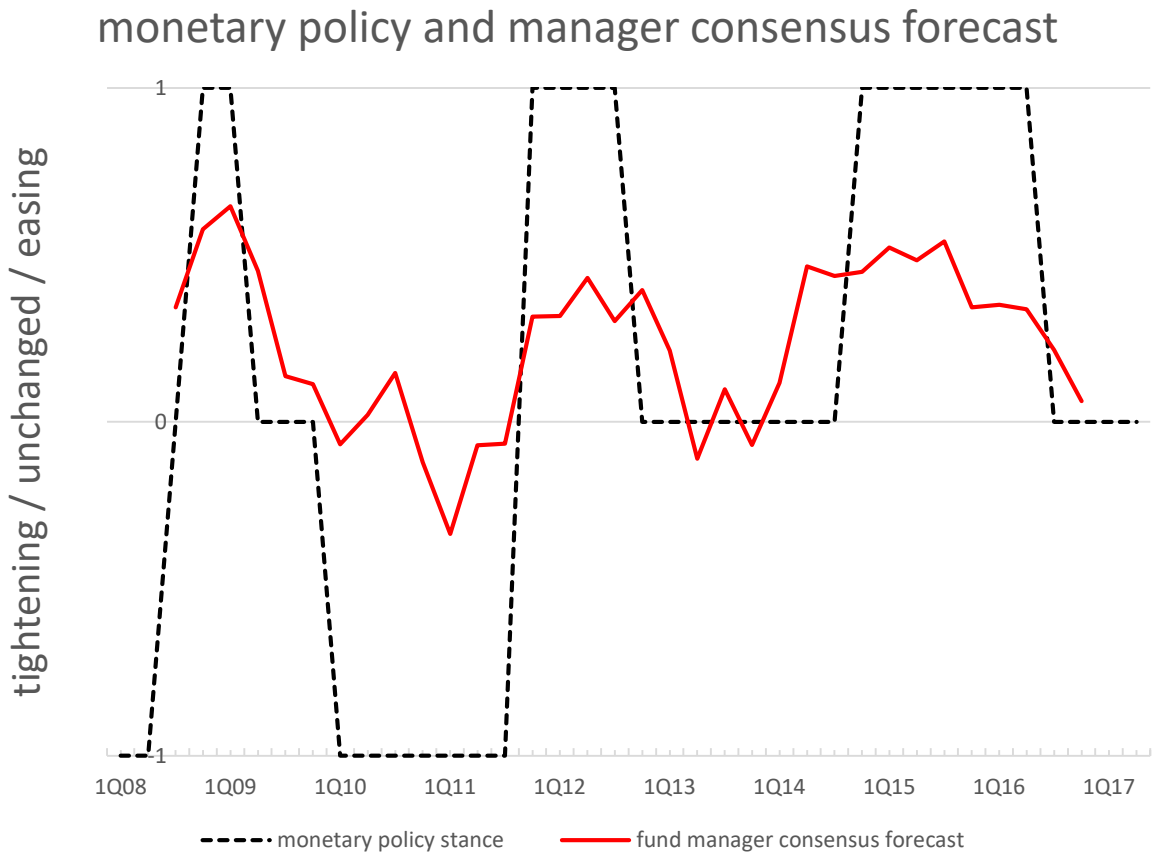
Fund managers near-term policy expectations

- Sample from 2008 Q3 to 2016 Q4
- Mandatory “Market Outlook” reports published in China Securities Journal
- Managers may choose specific topics relevant to their funds
- Possible reputational incentive to demonstrate capability

	Equity	Bond	Balanced	Money Market
# funds	658	658	1,376	268
# forecasts	1,932	3,974	4,931	1,986

Predictive power of consensus index

- Never close to unanimous, but some managers anticipate shifts



Consensus forecast predicts policy stance (Δmp_t)

- One-quarter-ahead predictive power of consensus forecast is comparable to that of Taylor rule and it performs better than other alternatives:
  - Implied forward Treasury bill rates at 3-6 and 6-12 months, respectively
  - PBoC survey of bankers: is monetary policy tightening/unchanged/easing ?

	(1)	(2)
Δmp_{t-1}		0.47^{**}
		(2.60)
$E_{t-1}(\Delta mp_t)$	2.39^{***}	1.18^{*}
	(5.69)	(1.95)
Adj R^2	0.49	0.57
Observations	34	34

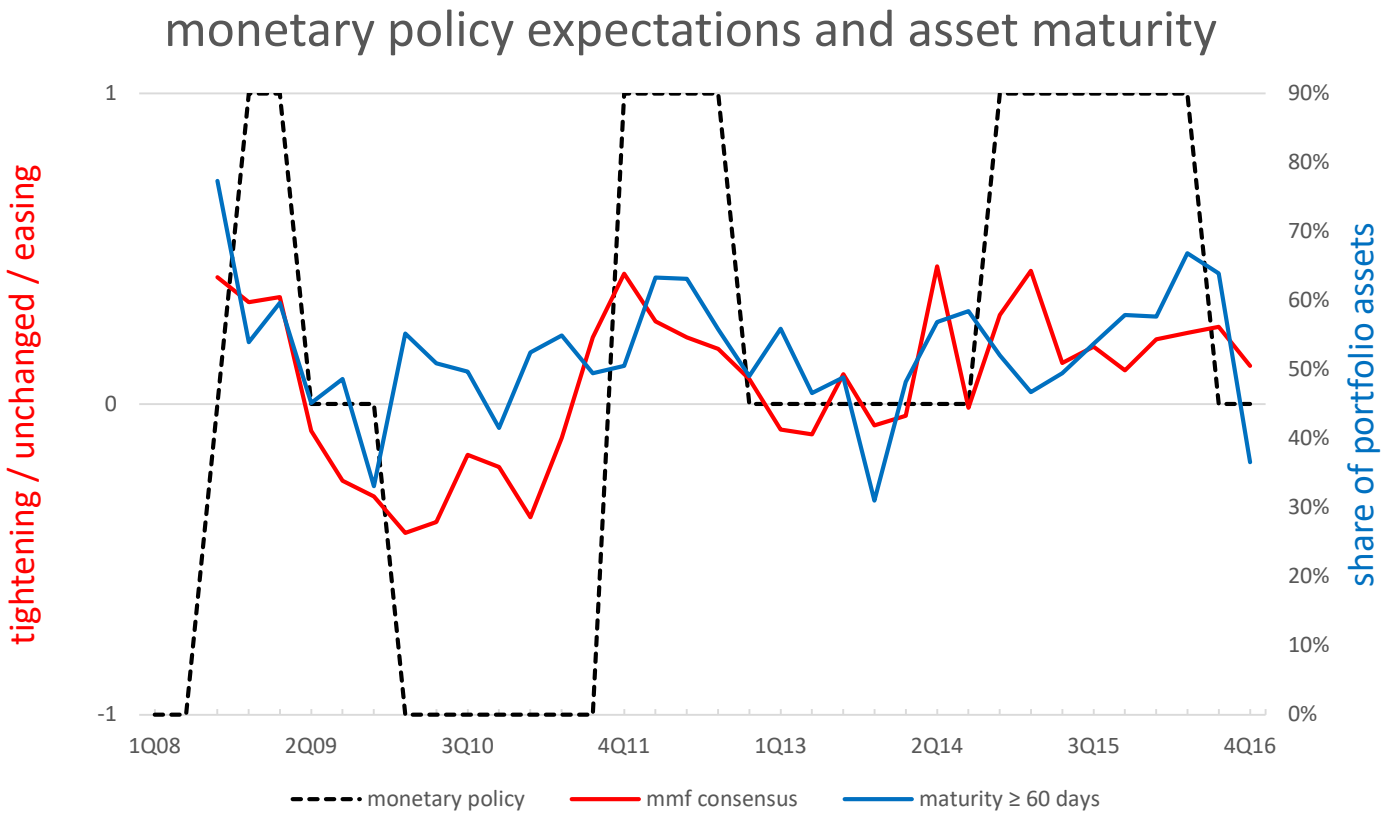
What determines manager forecast skill?

- In cross-section, compensation (percent fee and size) and education are positively associated with the fraction of correct forecasts

Dependent variable	$correct^i$
Management fee	878.995^{***}
	(3.50)
log (fund age)	0.077
	(1.54)
log (fund size)	1.440^{***}
	(3.31)
Female	-3.459
	(-1.43)
Ph.D.	4.614^{*}
	(0.27)
Experience	0.084
	(1.34)
Observations	1,910

Policy expectations and money funds' maturity weights

- Managers shift to longer term (≥ 60 days) when they expect policy to ease; effect is statistically significant and should boost their returns



Forecast skill and returns: money funds

- In cross-section of fund managers, skill in predicting monetary policy is associated with higher money fund returns
- (But positive estimate for bond funds is not statistically significant)

Correctness	0.468***	0.397***
	(3.72)	(3.61)
Mgmt Fees		-82.553
		(-1.51)
Size		0.064***
		(4.92)
Fund Age		-0.013***
		(-5.26)
Observation	156	156
R^2	0.082	0.324

Forecast correctness and returns: bond funds

- In panel of fund managers, correct prediction of monetary policy is associated with higher return for bond funds

Participated	1.462
	(1.38)
Participated and Correct	6.670***
	(4.52)
Lag Ln(Size)	-0.303
	(-0.35)
Lag Fund Inflow	0.001**
	(2.00)
Lag Fund Age	0.390***
	(4.46)
Fund FE	Yes
Observation	6,932
R^2	0.174

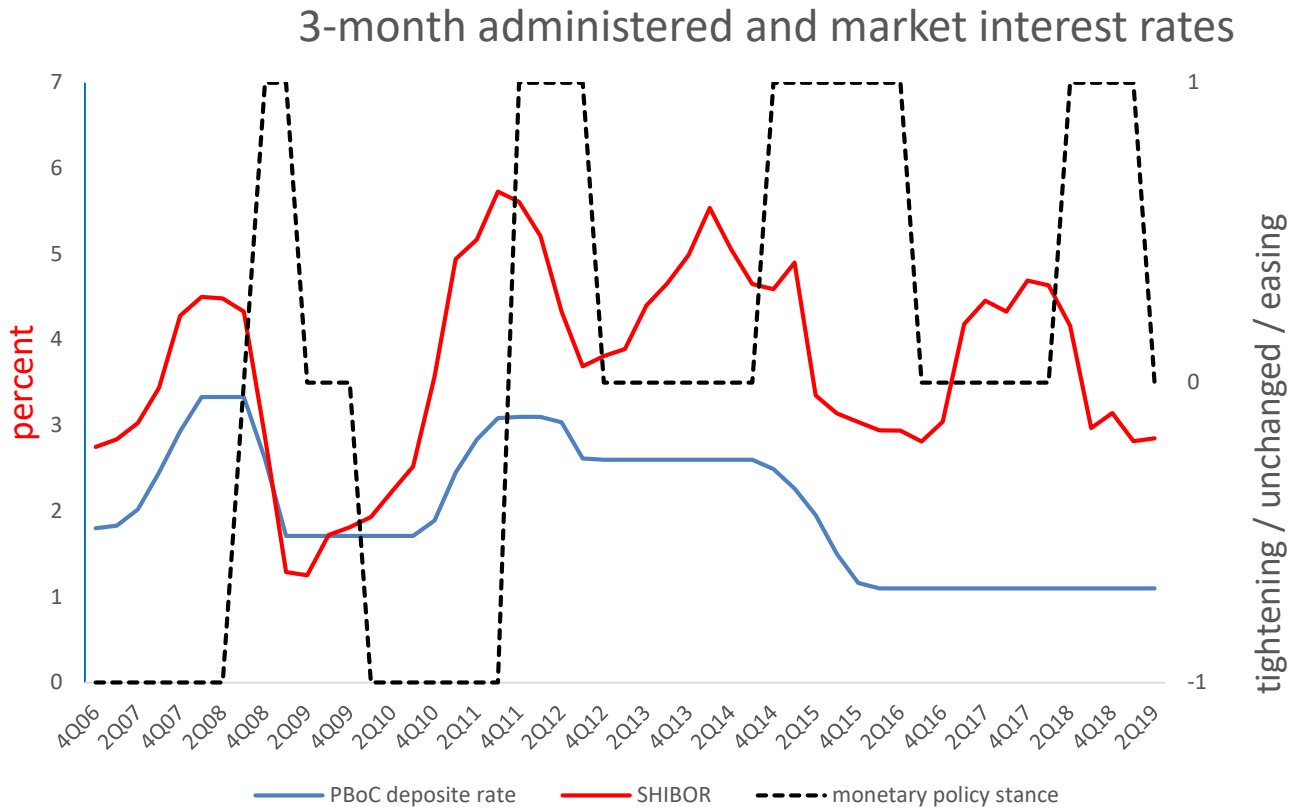
Forecast correctness and returns: money funds

- In panel of fund managers, correct prediction of monetary policy is associated with higher return for money funds only in earlier sub-sample

	Full sample	Before 2013	After 2013
Participated	0.035***	0.021	0.046***
	(3.12)	(1.43)	(3.51)
Participated and Correct	-0.012	0.034*	-0.007
	(-1.09)	(1.99)	(-0.56)
Lag Ln(Size)	0.064***	0.026***	0.029***
	(8.75)	(3.65)	(3.42)
Lag Fund Inflow	-0.002	-0.001	0.001
	(-1.47)	(-0.49)	(1.01)
Lag Fund Age	0.010***	0.004**	-0.001
	(6.10)	(2.25)	(-1.03)
Risk Free Rate	17.839***	20.370***	15.338***
	(44.15)	(36.26)	(30.15)
Fund FE	Yes	Yes	Yes
Observation	3,118	732	2,386
R^2	0.641	0.712	0.695

Money-fund forecast accuracy: why no pay off after 2013?

- Market rates (SHIBOR) deviate more from benchmark rate later in sample
- SHIBOR rises initially in 2014-2015 easing cycle



Main findings and contributions of the paper

- Novel text-based measure of expected monetary policy
- Predictive power of manager consensus policy forecast is strong, stands up well to alternatives
- Forecast skill is positively associated with education and compensation
- Money fund duration lengthens when manager expects easing monetary policy
- Accurate manager policy forecasts lead to higher fund returns, consistent with rewards for investing in information