Discussion of "Growth Expectations around FOMC Announcements" by Mikhail Bhatia and Kai Li (2022)

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2022 China Financial Research Conference (CFRC)
PBC School of Finance, Tsinghua University
July 3, 2022

Brief Summary

- examines the impacts of the U.S. unconventional monetary policies, e.g. Forward Guidance and Large Scale Asset Purchase (LSAP) on the U.S. dividend growth
- super important and general interests
  - rising interests in macro-finance: macro announcements on equity returns (Savor and Wilson, 2013; Lucca and Moench, 2015; Ai and Bansal, 2018)
  - key Q in macroeconomics: identification of the non-neutrality of monetary policy (Christiano, Eichenbaum and Evans, 1999; Bernanke and Kuttner, 2005; Nakamura and Steinsson, 2018; Swanson, 2021)

Overview of the Results

- key contributions: delves deeper into the FOMC day-announcement premium (Savor and Wilson, 2013, 2014)
  - via the lens of the "term structure of equity returns" (Binsbergen, Brandt and Koijen, 2012)
  - while at the same time gives a good decomposition of the identified stock market impacts as in Swanson (2021)
- very interesting and promising paper with good identifications and rich implications
- key findings

1. tightening LASP shocks reduces the dividend growth expectation regardless of binding of nominal interest rate at zero (ZLB)
2. tightening forward guidance shocks increases dividend growth expectation during ZLB but decreases it after ZLB

Outline of Comments

- standing in the literature for sharpening the contributions
- pre-announcement vs. post-announcement periods
- caution the differences with the existing findings
- data sources vs. sample coverages
- additional technical details

Recap of the Identification

- to identify the impacts of the shocks to the U.S. monetary policy on the *expected dividend growth*

$$\Delta \log G_t^{(n)} = \alpha + \sum_{i=1}^{N_{shocks}} \beta_i \cdot MPShocks_{i,t} + \gamma X_t + \epsilon_t^{(n)} \tag{1}$$

  - $\Delta \log G_t^{(n)}$: daily log changes in expected dividend growth with n-year maturity
  - Term structure of equity returns

$$S_t = \sum_{n=1}^{\infty} P_t^{(n)} = \sum_{n=1}^{\infty} \frac{\mathbb{E}_t[D_{t+n}]}{1+\mu_t^n} = \sum_{n=1}^{\infty} D_t \frac{G_t^{(n)}}{1+\mu_t^n} \tag{2}$$

  - $G_t^{(n)} = \mathbb{E}[\frac{D_{t+n}}{D_t}]$ and with *unobservable* $P_t^{(n)}$ dividend strip prices and *observable* dividend future prices $F_t^{(n)} = P_t^{(n)}(1+y_t^{(n)})$ with no-arbitrage condition assumed (Gormsen and Koijen, 2022)

$$F_t^n = D_t \frac{G_t^{(n)}}{1+\theta_t^{(n)}} \quad \text{where} \quad 1+\theta_t^{(n)} = \frac{1+\mu_t^{(n)}}{1+y_t^{(n)}} \tag{3}$$

Comment 1. General Standing in the Literature

- observing dynamics $F_t^{(n)}$, this paper highlights that MP operates on two different channels (growth channel & risk-premium channel)

$$\Delta log F_t^{(n)} = \Delta log G_t^{(n)} - \Delta log \Theta^{(n)} \tag{4}$$

- currently, motivations and the empirical results (on FG shocks, LSAP shocks) are structured very **macro**

1. if targeting at macro audience,

- *Q: apart from the short-run impacts, what are the longer-term dynamic impacts on dividend growth? duration of MP impacts?*

  - may adopt the method of local projection (Jorda, 2005; Barnichon and Brownlees, 2019)

  - highlight more on the *added value* of taking unconventional relative to conventional policy tools (interest rate without ZLB), e.g. more cleanly show off the roles of FG and LASP

- existing findings in macro, small and short-memory impacts of FG/LASP (Taylor, 2012; Woodford, 2012; Wright, 2012) vs. large and persistent (Swanson, 2021)

- *Q: why studying dividend growth besides GDP growth*

  - need motivations on the importance of dividends for shedding light on macro quantity dynamics (e.g. to backout MP-induced *disaster risk*? (Martin, 2017 QJE))

Comment 2. Pre-announcement vs. Post-announcement Periods

- **macro-finance interests**: the announcement-equity premium literature is shifted to focus on the *pre-announcement* periods (Lucca and Moench, 2015; Hu et al., 2022; Cocoma, 2022; Ai, Bansal and Han, 2022)

  - 90% accumulation of realized equity returns $r_t = \frac{S_t - S_{t-1}}{S_{t-1}}$ accrued before FOMC since PM of $t_{FOMC} - 1$

2. may want to examine the impact channels and decomposition of FOMC effects prior to the news release

   - *event studies* centering the FOMC announcement events

   - question 1 to ask: whether the *risk-premium channel, however, took place prior to announcement?*

   - question 2 to ask: *expected dividend growth pre-loaded somehow before FOMC shocks?*

   - then rationalizing the dynamics of stock prices/returns from dividend growths during pre-announcement period? (Gormsen and Koijen, 2020) by linking r_t with G_t^n changes

Comment 3. Relative to the Existing Findings

- this paper: controlling for the risk-premium, highlights the dividend growth part
  - conditional on the VIX-reduction before FOMC announcements
  - estimated the risk premium using market excess returns, VIX and EPU and singled out $\Delta \log G_t^{(n)}$
  - directly run regressions of $\Delta \log F_t^{(n)}$ to examine impacts on the lower bound of growth ($\Delta \log G_t^{(n)} \geq \Delta \log F_t^{(n)}$)

3. to draw clearer comparisons and interpretations

- Hu et al. (2022) has the pre-FOMC uncertainty reduction highlighting a particular type of *variance*-risk (second moment) reduction separated from the expansionary/contractionary monetary policy risk (focus of this paper)
  - better motivations on why pre-FOMC VIX reduction should be conditioned for isolating the ex-post shock impacts
- Swanson (2021): consistent FG impacts (negative) and LSAP impacts (insignificant) on stock returns r_t within and outside the ZLB before and after
  - to reconcile current findings on dividend growth given FG shocks (flip signs within and after ZLB) with those of Swanson (2021)?

Table 5 (Swanson, 2021 JME)

	S&P500
(A) full sample, Jul. 1991–Jun. 2019 (241 observations)	
change in federal funds rate	−0.37***
(std. err.)	(0.042)
[t-stat.]	[−9.00]
change in forward guidance	−0.14**
(std. err.)	(0.049)
[t-stat.]	[−2.83]
change in LSAPs	0.03
(std. err.)	(0.059)
[t-stat.]	[0.48]
Regression R^2	0.31
(B) pre-ZLB sample, Jul. 1991–Dec. 2008 (157 observations)	
change in federal funds rate	−0.39***
(std. err.)	(0.042)
[t-stat.]	[−9.29]
change in forward guidance	−0.09**
(std. err.)	(0.044)
[t-stat.]	[−2.13]
Regression R^2	0.37
(C) ZLB sample, Jan. 2009–Nov. 2015 (55 observations)	
change in forward guidance	−0.25**
(std. err.)	(0.101)
[t-stat.]	[−2.50]
change in LSAPs	0.10
(std. err.)	(0.080)
[t-stat.]	[1.27]
Regression R^2	0.28
(D) post-ZLB sample, Dec. 2015–Jun. 2019 (29 observations)	
change in federal funds rate	−0.37
(std. err.)	(0.261)
[t-stat.]	[−1.41]
change in forward guidance	−0.15**
(std. err.)	(0.071)
[t-stat.]	[−2.13]
change in LSAPs	−0.19
(std. err.)	(0.185)
[t-stat.]	[−1.04]
Regression R^2	0.25

Comment 4. Samples Coverage for Shedding Light on the ZLB

- this paper: relies on sample coverage differences of the propriety data on dividend future contracts (Jan 2010 to Feb 2017) and the exchange data (Nov 2015 to June 2019) to examine results differences between the ZLB vs. post-ZLB

4. differences in empirical results due to data source differences or driven by differences in sample years?

- may need some pre-test to show the "data similarity" (common set of years: Nov 2015 to Feb 2017 for analysis)
- discuss why exactly impacts of FG differ from those of LSAP in the post-ZLB periods? both policies should be tapering that lead to interest rate hikes

Other Details

- "growth expectations" can be misleadingly associated with GDP growth, try linking GDP growth forecast with dividend growth expectation? (Gormsen and Koijen, 2020)
- for much broader impacts and general contributions, considering markets of EU area, U.K., and the Japan responding to monetary policy announcements of central banks of their own, e.g. Binsbergen and Koijen (2017), Brusa, Savor and Wilson (2020)
- with estimated risk-premium, use bootstrap standard errors for further identifications
- controlling for degree of risk-aversion changes upon FOMC shocks (Pflueger and Rinaldi, 2022)
- significant outlier announcement event driving the results? e.g. Operation Twist (Sept. 2011), delay tapering (Sept. 2013) following Pflueger and Rinaldi (2022)

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- a really fascinating and promising paper with important contributions and general interests!

Good luck
Thank you very much!