"Jumps and Post-FOMC Announcement Drifts in Currency Markets"

Suzanne Lee, Minho Wang

Discussion by:

Nancy R. Xu

Boston College

MFA, Chicago

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What does this paper do?

- **Study the intraday return dynamics in currency markets around FOMC announcements, focusing on the post-FOMC drifts (+0 hr : +48 hrs)**

  $\Rightarrow$ What does the drift look like?

  $\Rightarrow$ How persistent is it?

  $\Rightarrow$ What predicts the drift magnitude?

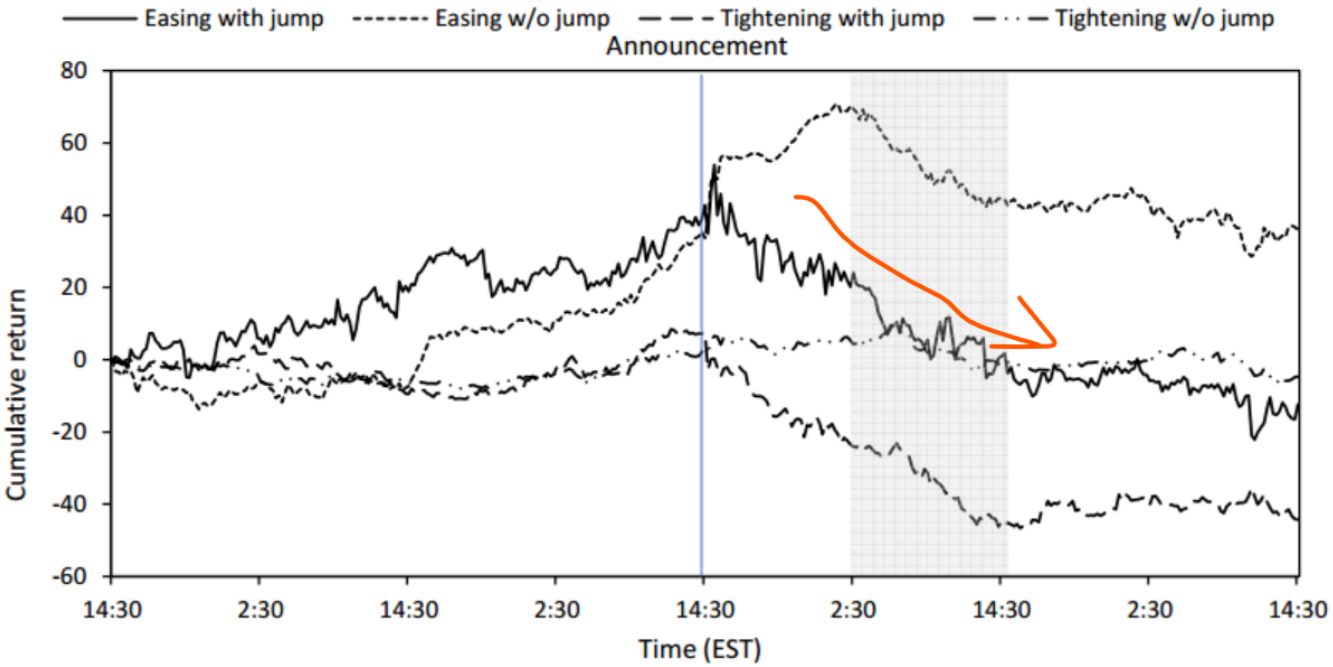
  $\Rightarrow$ When is the phenomenon stronger (across currencies, time, MP decisions)?

Currency market announcement drifts

- **Mueller, Tahbaz-Salehi, and Vedolin (2017, JF)**: there is a significant pre-FOMC announcement drift in the currency excess returns (typically starting from -48 or -72 hours prior to the announcement)
- Suppose interest rate in the US is smaller than that in the foreign country; $e_{i,t}$ is the quantity of dollars per unit of foreign currency i; investors in each country (e.g., US) have downward-sloping demand for assets denominated in the other country's currency (e.g., foreign); period 1 = FOMC announcement time.
- The representative investor wants to maximize expected profit in the currency market, where the interest rate for US until the resolution (period=1) contains **MP uncertainty ($\sigma_R > 0$)**. An increase in MP uncertainty due to an upcoming announcement results in depreciation in foreign currencies against dollar pre-announcement, followed by **an expected appreciation in the future ($E_t[e_{i,t+1}] \uparrow$)**
- However, the literature does not focus much on the **post-FOMC drift**.

Main findings from this paper

- **What does the drift look like? Persistency?**
  (1) **Negative post-FOMC excess returns** – dollar appreciates
  (2) **Most consistently come from +12hr:+24hr periods**



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  $$rx_{i,w+1} = \theta_0 + \theta_1 * JVOL^-_{i,w} + \theta_2 * JVOL^-_{i,w} * I_{w=[+0hr:+12hr]} + \theta_3 * I_{w=[+0hr:+12hr]}$$

  (3) **Negative drift is predicted by negative jump volatility in exchange rates** – higher volatility coming from dollar appreciation during [+0hr:+12hr] post FOMC, more negative the drift during [+12hr:+24hr] is

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  (4) **High currency market volatility periods**
  (5) **Higher than expected MP policy (surprise=ann-exp)**
  (6) **Non-OECD or developing currencies**

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- **Overall puzzle:**
  The long, negative post-FOMC drift is surprising, while the expectation may be that, once uncertainty is resolved, everything moves on instantaneously.

#1 Volatility or trend is predicting?

- There is no problem with the main specification (i.e., every 12-hour as a unit for time unit w; construct predictors and interact it with different period indicators in order to learn: which period has the strongest predictability)
- But in my view, what happens to changes in FX ($\frac{e_{i,t+1}}{e_{i,t}}$) during the [0hr:12hr] period is probably the first-order effect to understand.

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- One can argue that predictability of $JVOL^{-}_{i,w}$ on $rx_{i,w+1}$ is simply mechanical:
  - $\Rightarrow$ As meeting finishes, uncertainty resolves, risk premium drops, dollars will eventually appreciate after FOMC, which will drive down the excess returns [as speculated in MTV2017].
  - $\Rightarrow$ Therefore, the negative jump volatility can predict further negative excess returns because $JVOL^{-}_{i,w}$ is negatively associated with negative returns. This story is somewhat suggested in Table 5, "lagged returns"; if we plug "lagged returns" into the interaction, results may still show.
  - $\Rightarrow$ Is it volatility or simply return trend that is predicting the future return trend?

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Suggestion 1: Discuss sources and their relative importance

- Theoretically, there should be two sources to explain excess return movements after FOMC – dummy effect and directional effect:
  (1) **Decreases in monetary policy uncertainty**
  (2.1) **Changes in risk or growth perception given MP decision**
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$$rx_{i,t+1} = log(e_{i,t+1}) - log(e_{i,t}) + int_{i,t} - int_{US,t}$$

- Effects of "(1) **Decreases in monetary policy uncertainty**":
  dollar starts to appreciate, excess return demanded decreases
- Effects of "(2.1) **Changes in risk or growth perception given MP surprises**":
  unclear
- Effects of "(2.2) **Changes in interest rate perception given MP surprises**":
  tightening decision compared to current period will yield lower excess returns
  easing ... higher ...

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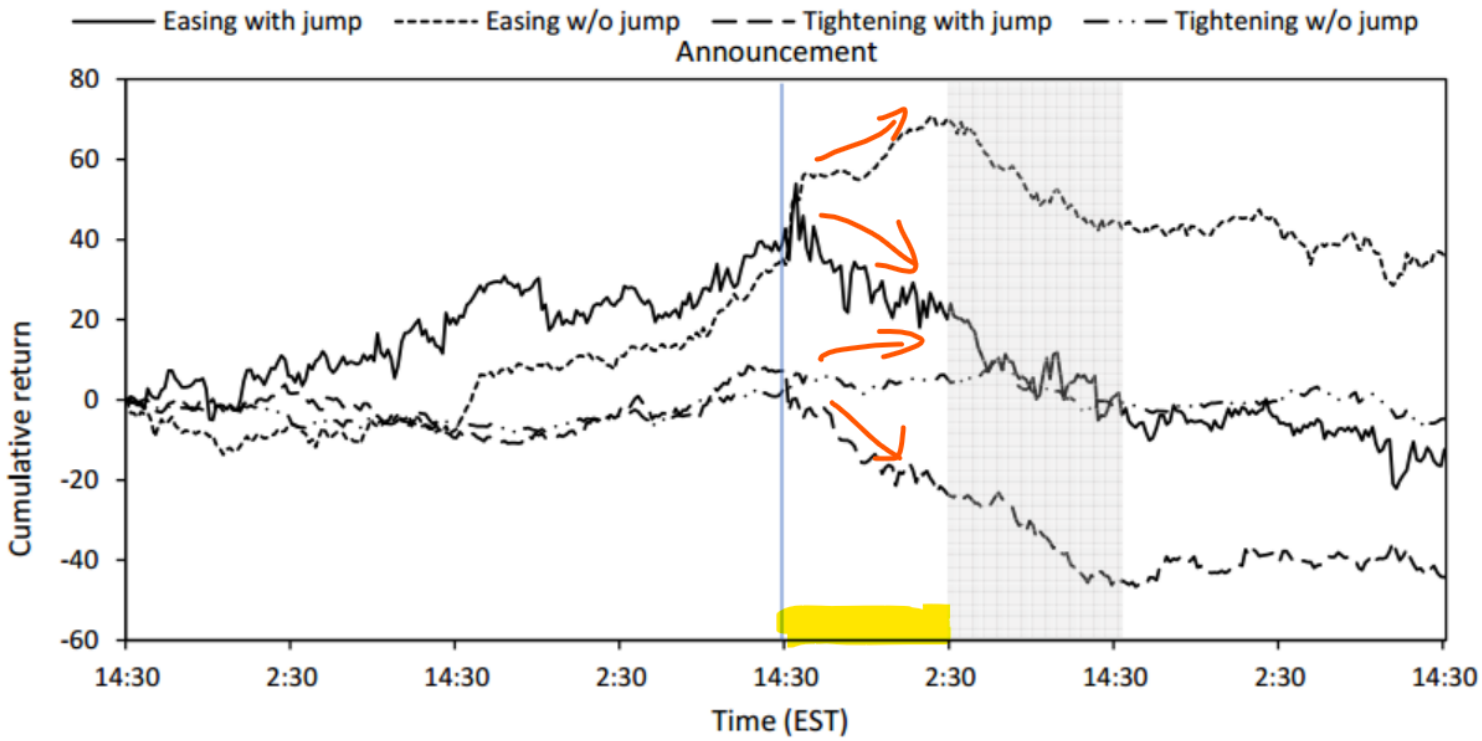

- Channel (2.1) seems to dominate (e.g., positive and negative jumps for easing) — **(to think about initial trend/jump)**
- Channel (1) gets offset a little by certain (2.1) effects; minutes after the MP announcement, traders are more reacting to the directional effect, rather than the resolution of uncertainty.

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Suggestion 2: Add pre-FOMC announcement drift in prediction

- Now, suppose we tease out a pure "uncertainty resolution", controlling for channel (2.1) and channel (2.2). How does it look like? How much MP uncertainty is recovered, or there is a part of uncertainty elevation that takes many days to resolve?
  — **(potentially useful to provide testable hypotheis for theoretical models)**
- To measure degree of recovery, one can consider, in Table 5 (instead of time-currency FEs) perhaps simply including pre-FOMC announcement drift size will further support the uncertainty resolution story during [+12hr:+24hr].

#2 MP surprises results

- As mentioned before, the MP surprise effect seems dominate (Channel (2) from my previous slides) in determining the initial responses, offsetting the "dummy effect" (through uncertainty resolution).
- However, sometimes, a **higher-than-expected interest rate surprise** is being priced as a **positive** shock to asset markets (Jarocinski and Karadi 2020; Bekaert, Hoerova, Xu, 2021; among many others) – **Central bank information**

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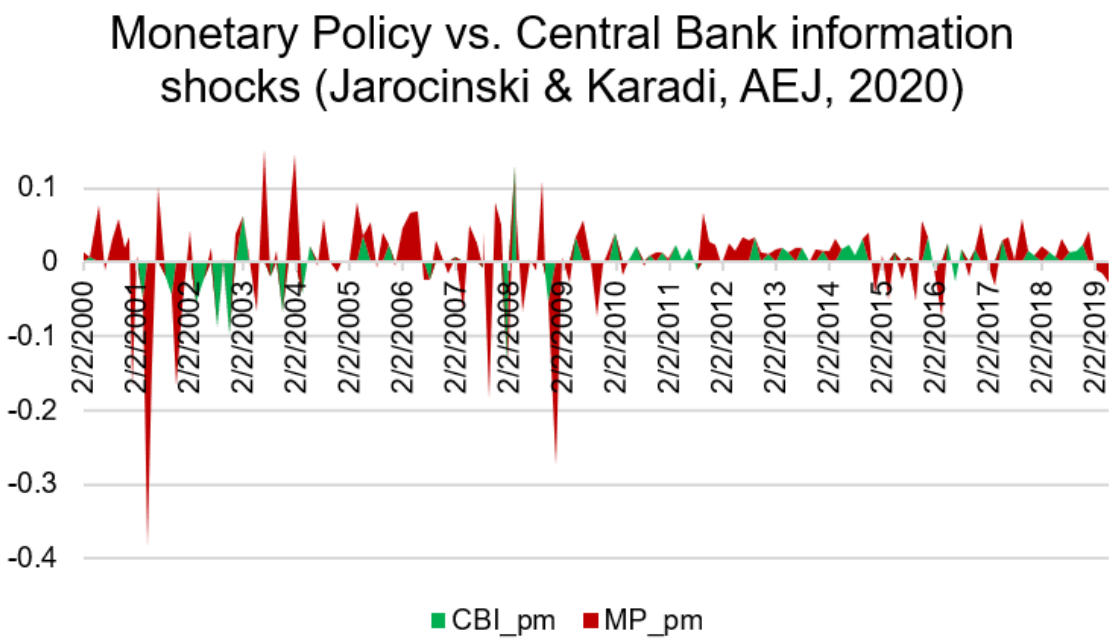

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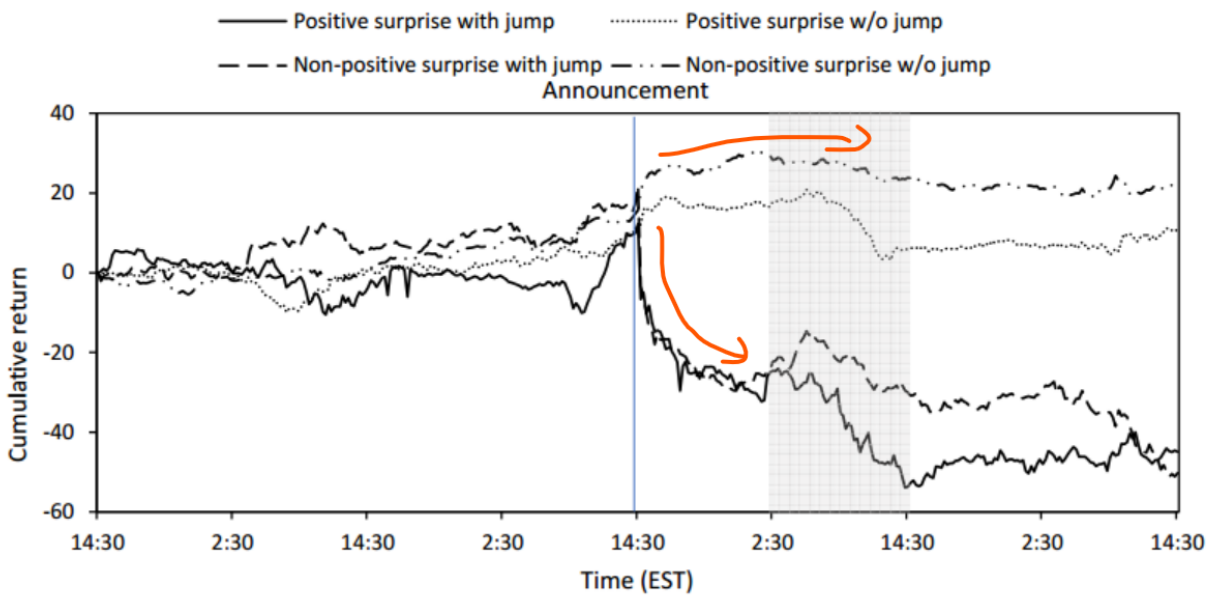

- Why could **+ surprises** generate both positive and negative directional changes in excess returns? (Pointing to the MP vs CBI interpretation)

- Comparing the second and fourth lines (from top down):
  When **+ surprises** generate **CBI effect**, lower risk and higher growth expected from US, which should be more in line with the fourth line.
  When **+ surprises** generate **MP effect**, this more in line with the second line (excess return continues to increase).

The sharp drop from the fourth line: CBI effect seems stronger these days (consistent with Bekaert, Hoerova & Xu)

Conclusion

- **The paper is super well-organized, and empirically very convincing.** I also think the paper has a lot of potential to bring more attention to post-FOMC announcement – which should be equally important from the investment view point (but it is conceptually and economically harder to interpret due to information release).

- **My "quibbles":**
  1. Using trend to predict trend? Therefore, it is important to clearly **separate out and discuss pricing sources**, given all the stylized facts from the jump in the first 12 hours to the overall dampening excess returns after 12th hour: (1) Uncertainty resolution, (2) directional pricing channels given MP decision (risk, growth, interest rate).
  2. MP surprises: tale of two stories. Therefore, I suggest separately consider FOMC dates when primarily capital markets price in **CBI shocks versus pure MP shocks**.

Thank You!

nancy.xu@bc.edu