

# **‘Liked’, ‘Shared’, ‘Commented’: Central Bank Communication on Facebook and Twitter**

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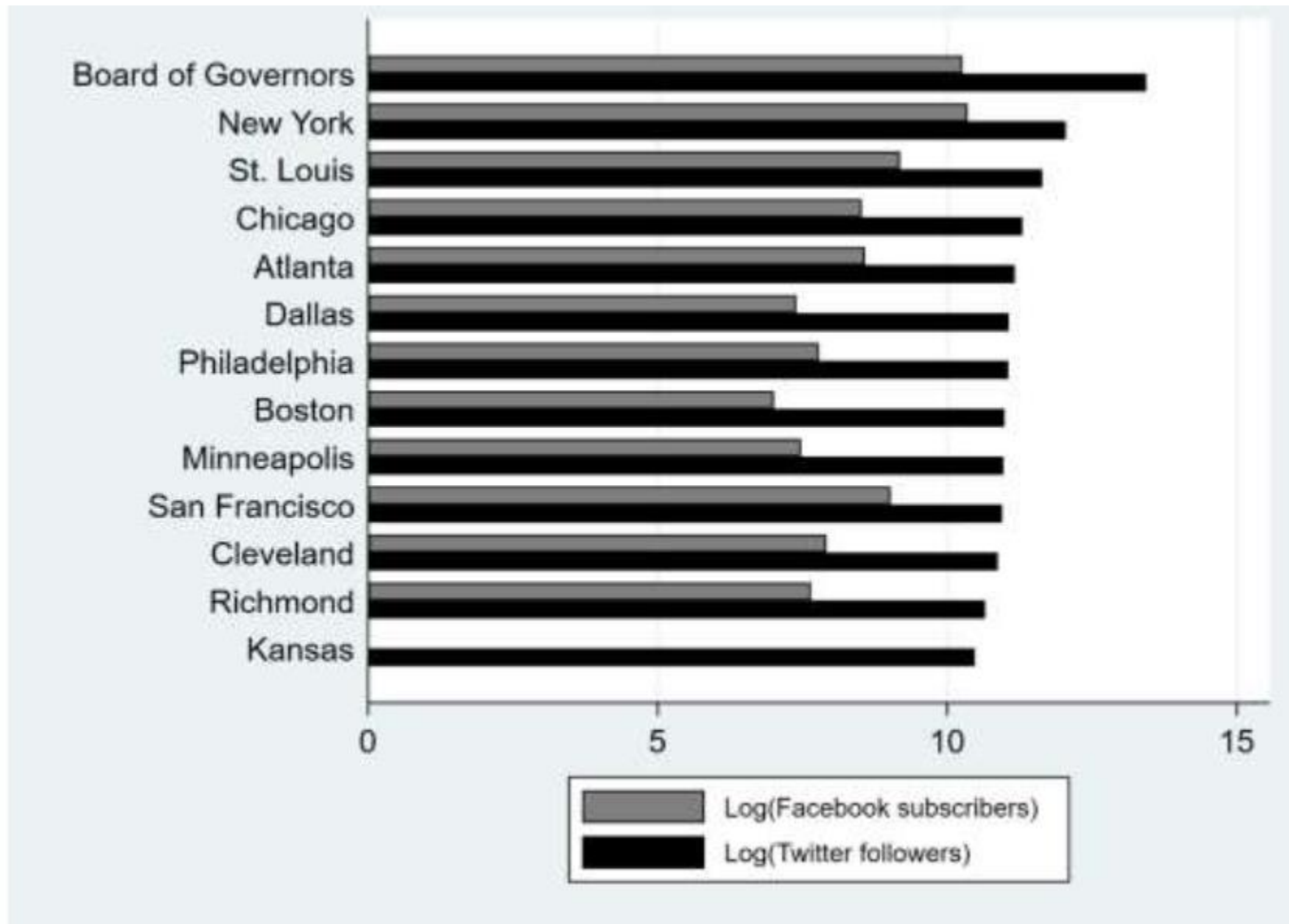
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Oleksandr Talavera  
*University of Birmingham*

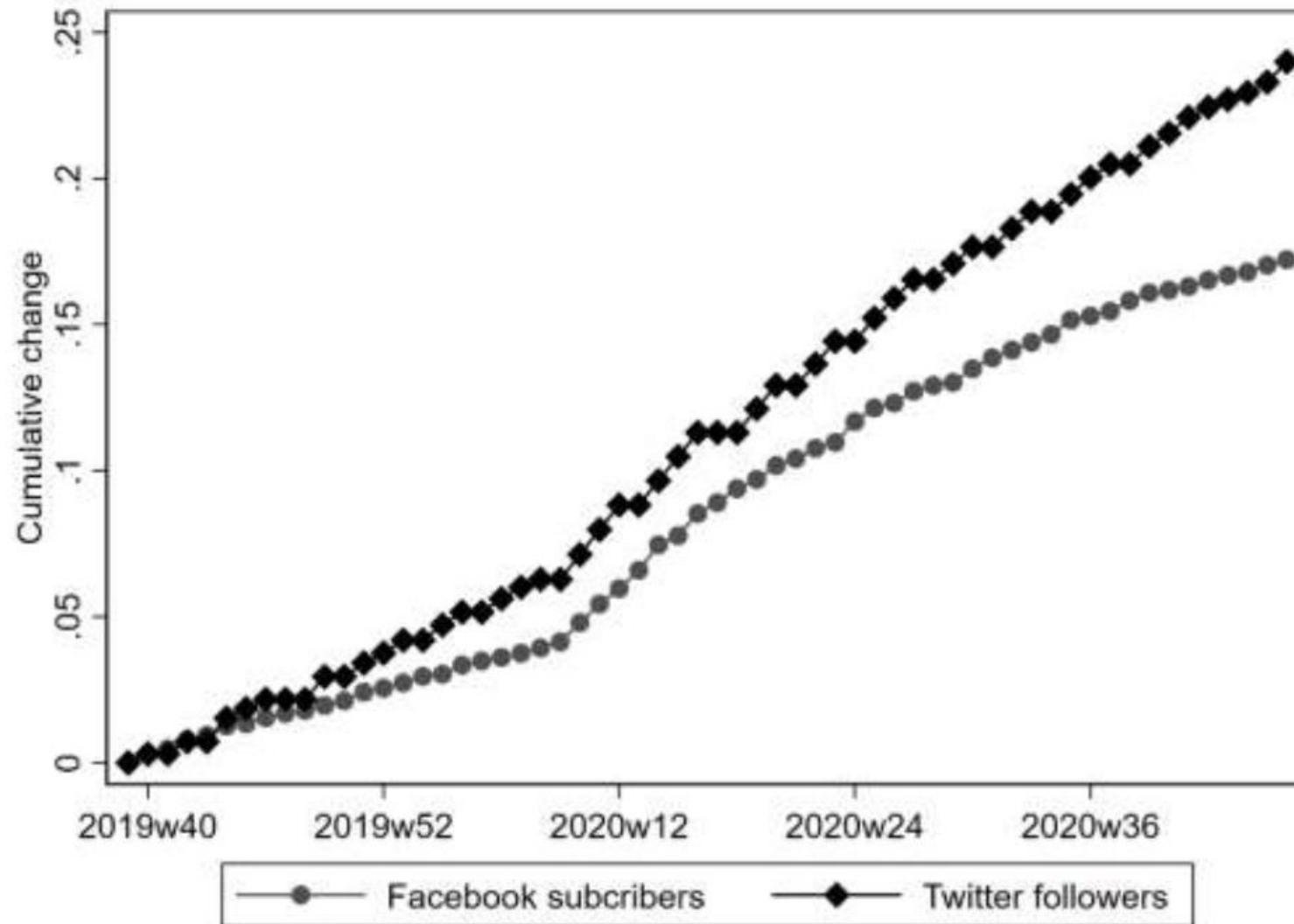
## **Abstract:**

This study is a comprehensive analysis of the Federal Reserve System (FED) communication on social media and its effectiveness. Our examination shows that although the FED uses both Twitter and Facebook for public outreach, communication via Twitter is more popular and gains greater public engagement. There are heterogeneous effects across different topics of the FED’s social media posts, post types, as well as across Twitter user groups. The general public is most active in engaging with the FED accounts, followed by media, investors, academics, and government accounts. Further investigation suggests inconclusive evidence of stock market reactions to the FED communication on social media. However, market participants do update their inflation expectations based on information contained in the FED’s social media posts.

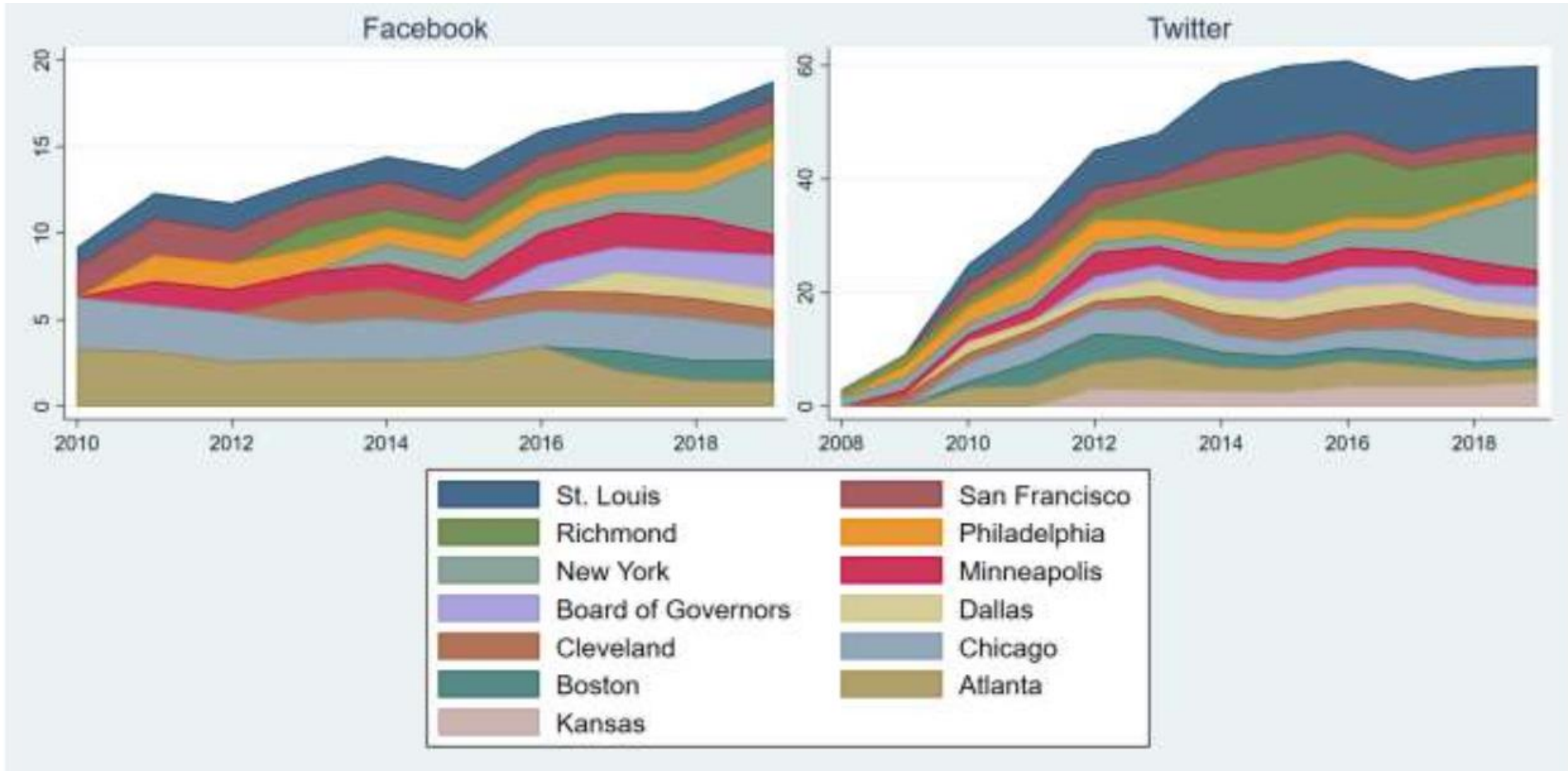
# Number of Twitter followers and Facebook subscribers as of November 2020



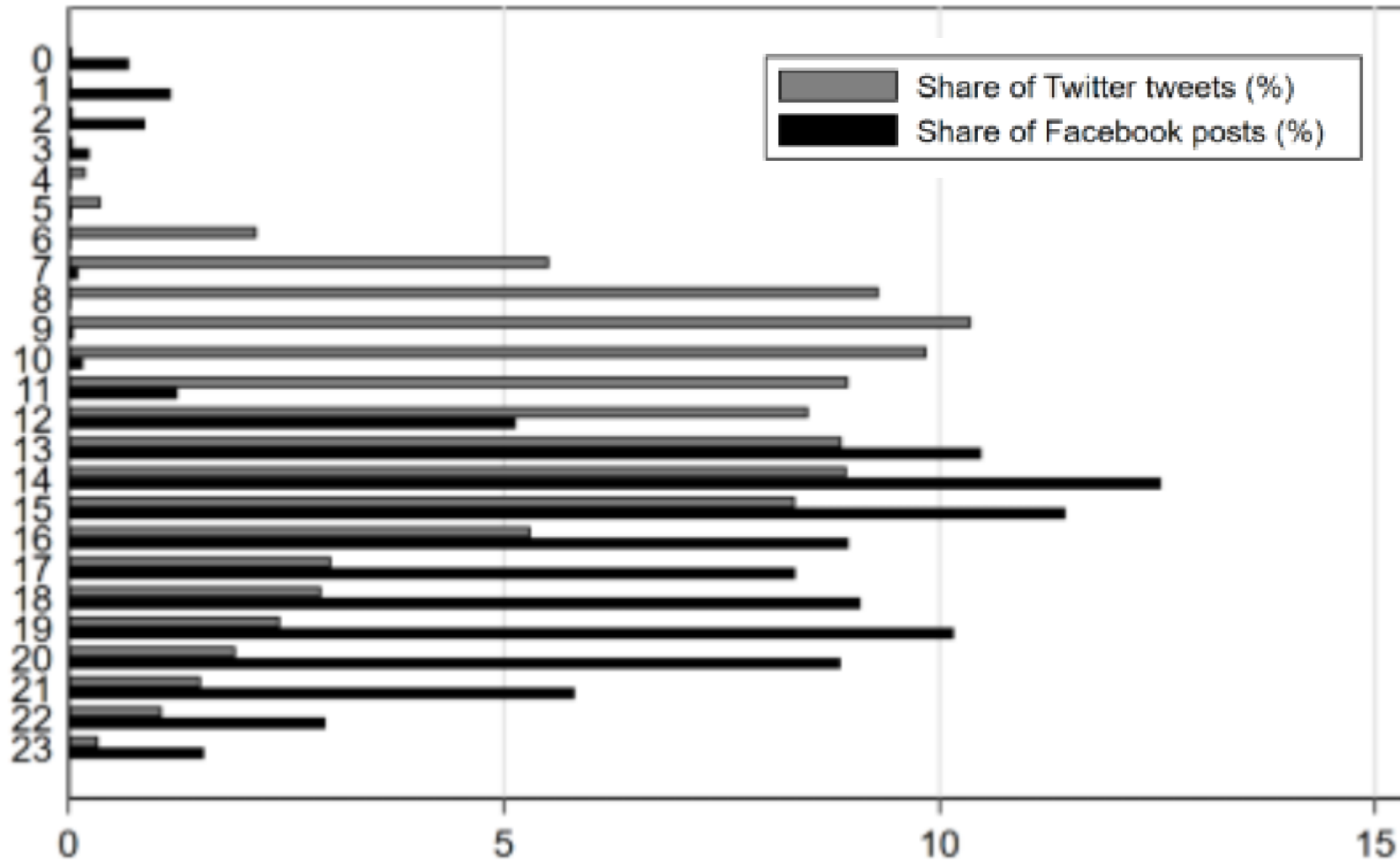
## Board's Facebook subscribers vs. Twitter followers



# Average daily posts over time

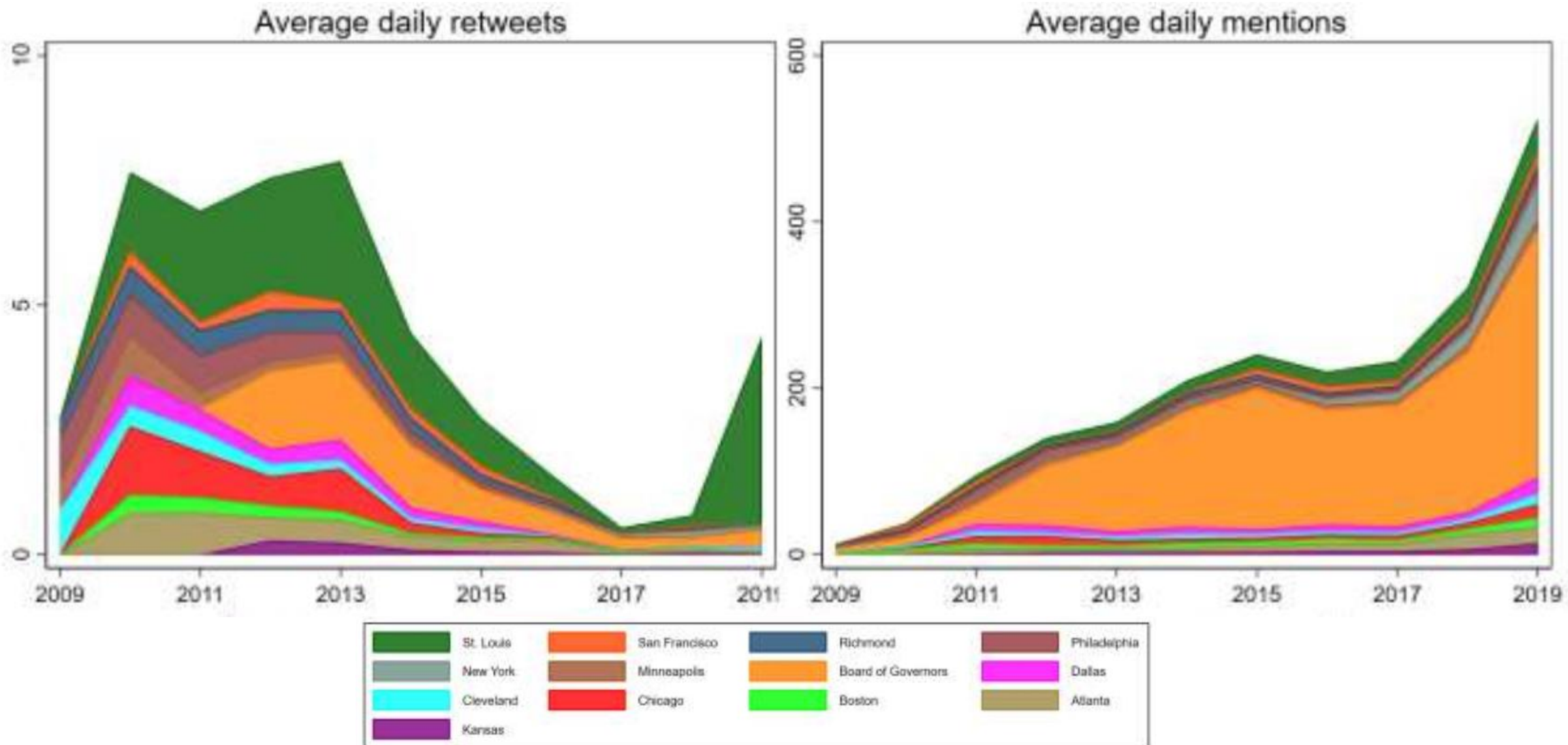


# Posting hours (local time)

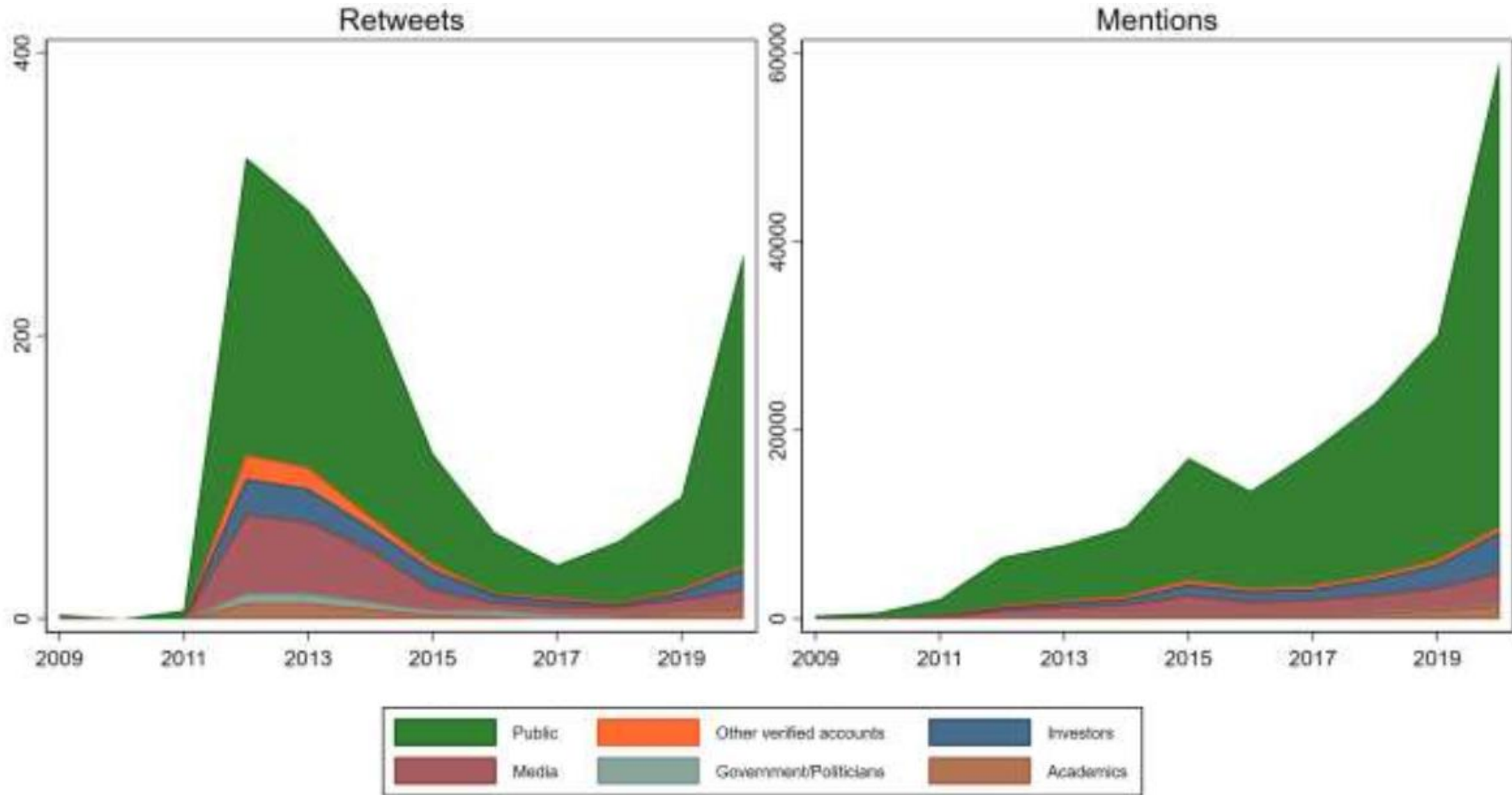


Notes: This figure show the share of Twitter tweets (grey bars) and Facebook posts (black bars) by hours of the day.

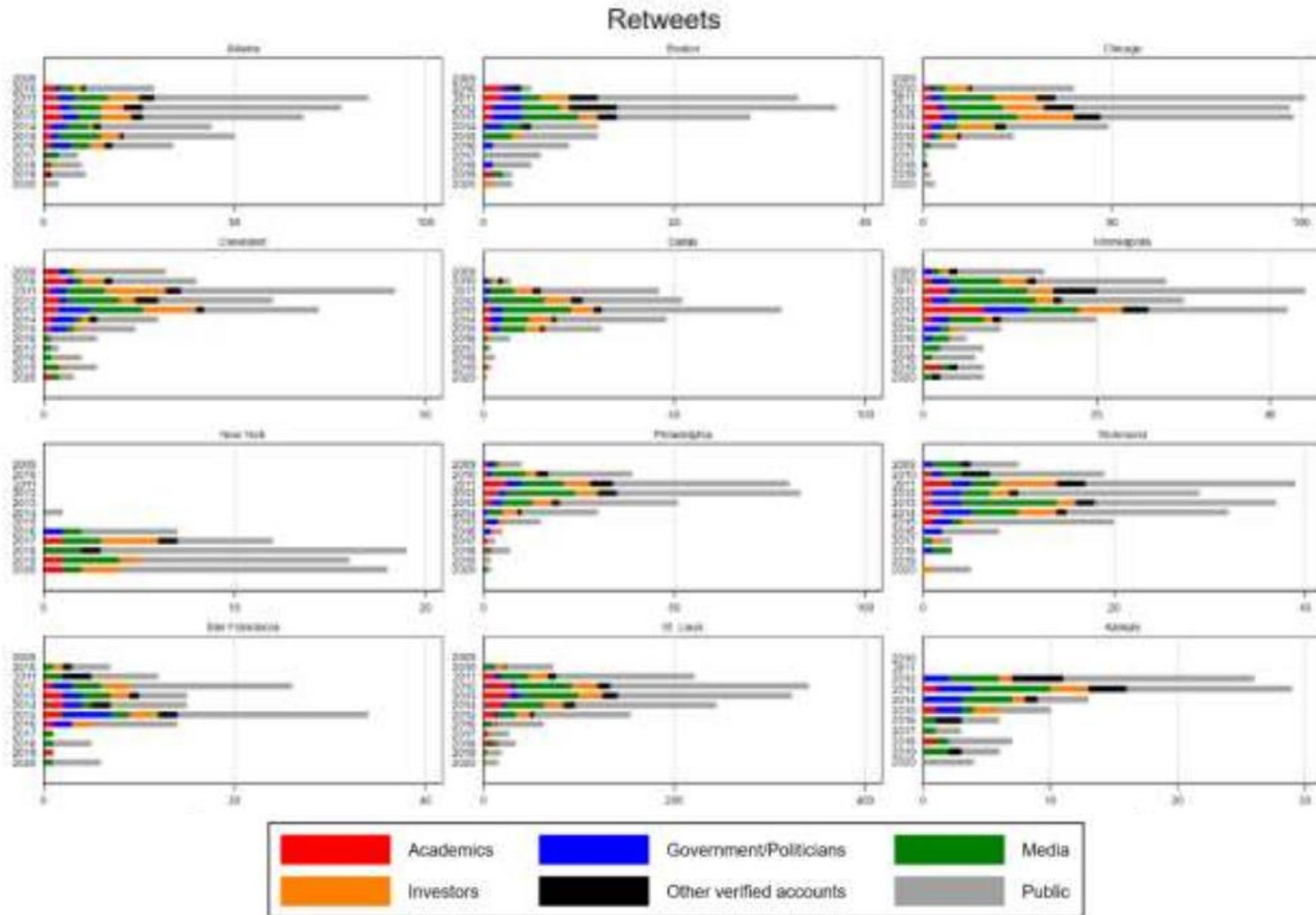
# Average daily mentions/retweets over time



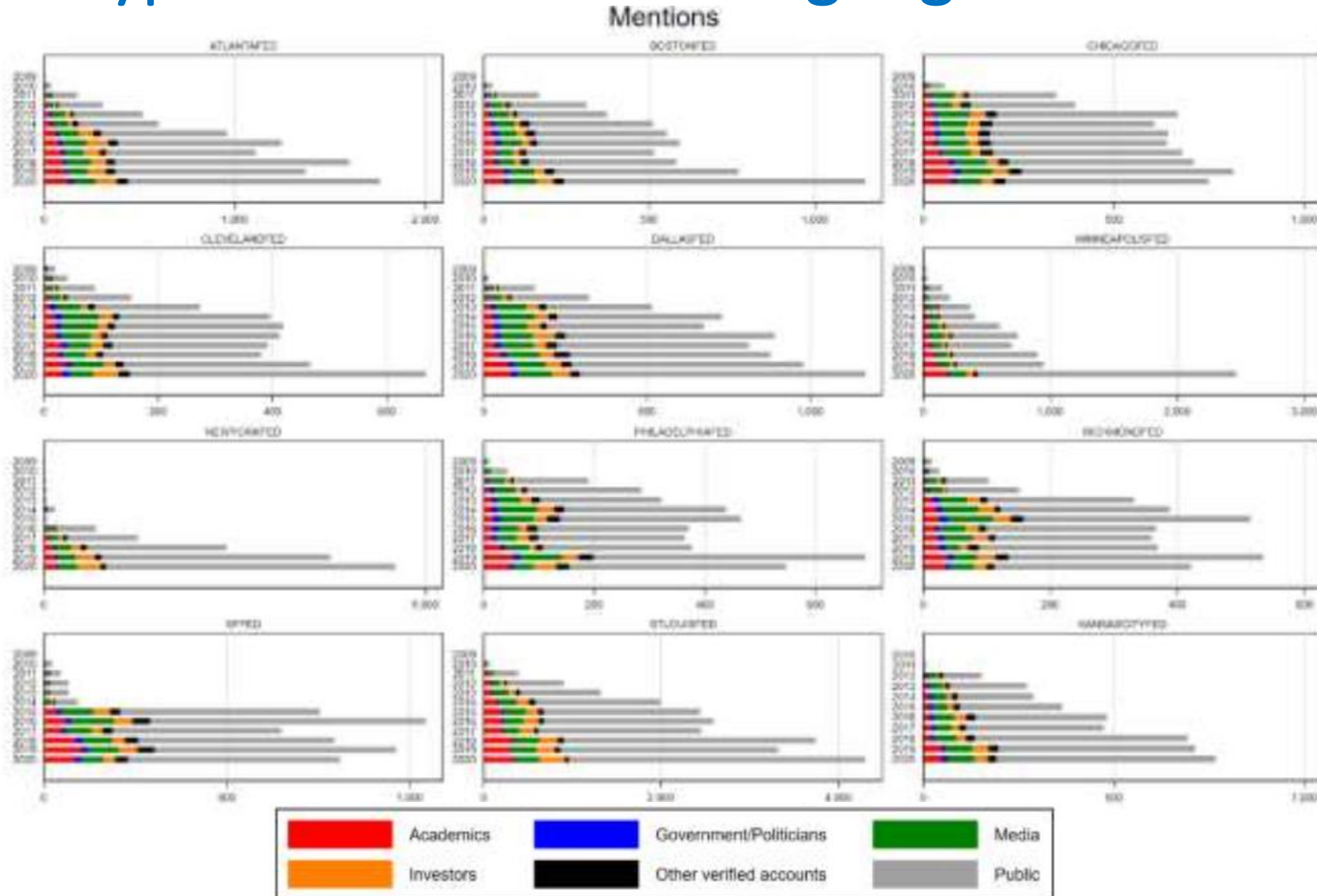
# Type of users interacting with the Board account



# Types of users retweeting regional FED

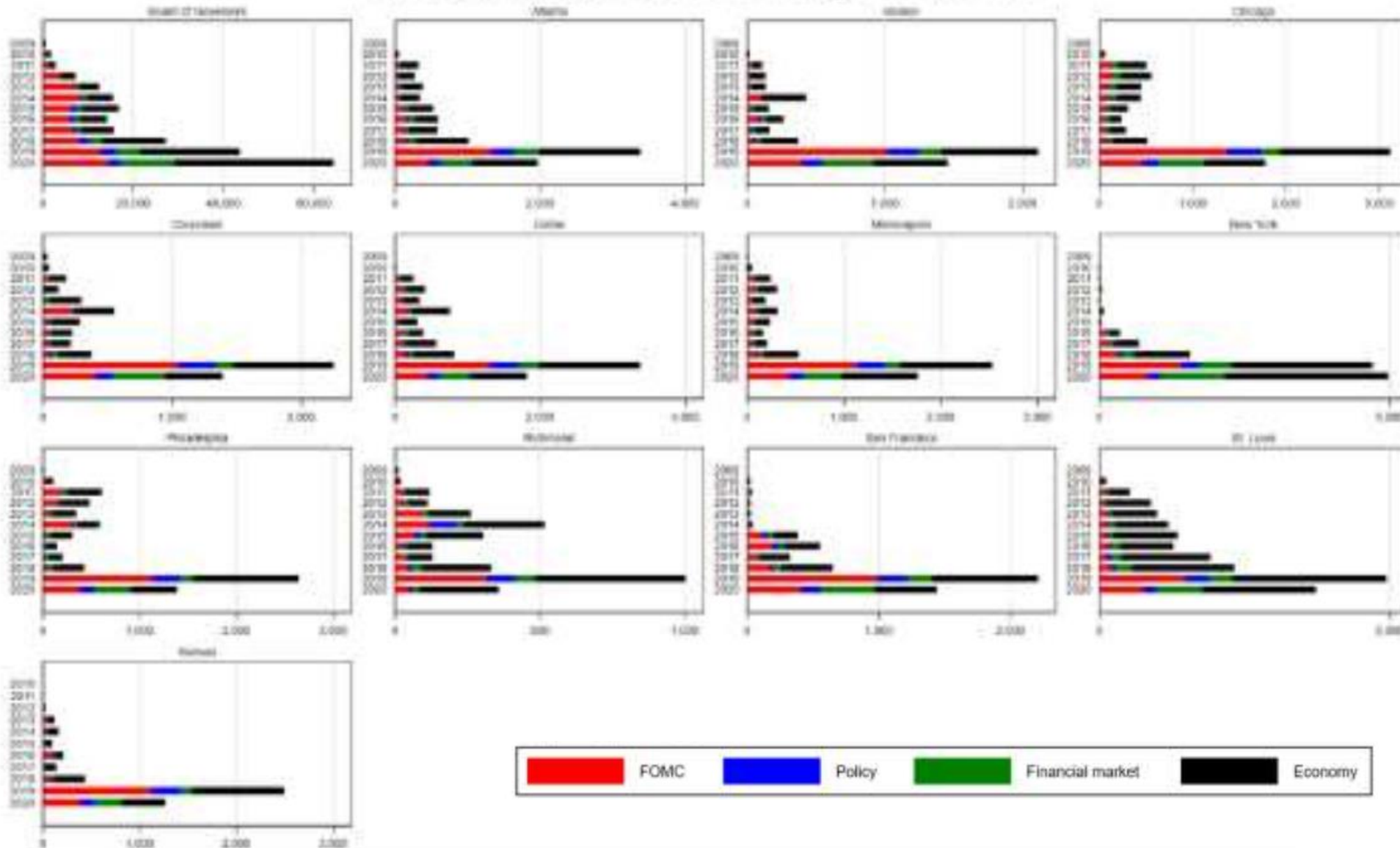


# Types of users retweeting regional FED



# Content of mentions/retweets

## Mentions/retweets by content



	(1)	(2)	(3)	(4)	(5)	(6)
Panel A. Facebook						
	Like		Share		Comment	
FOMC	0.064 (0.044)		0.140** (0.057)		0.153 (0.125)	
FOMC2 (base = no FOMC)						
No change		-0.037 (0.056)		0.066 (0.066)		-0.094 (0.133)
Change		0.036 (0.067)		0.023 (0.087)		0.102 (0.163)
FOMC in 2020		0.243*** (0.075)		0.254** (0.101)		0.568*** (0.170)
Ln(Policy)	0.117** (0.059)	0.117** (0.059)	0.205** (0.083)	0.199** (0.081)	0.369*** (0.107)	0.369*** (0.108)
Ln(Economy)	-0.031 (0.032)	-0.033 (0.032)	0.069* (0.038)	0.064* (0.037)	0.142 (0.090)	0.130 (0.089)
Ln(Financial market)	-0.177*** (0.040)	-0.182*** (0.039)	0.034 (0.054)	0.025 (0.053)	0.024 (0.085)	-0.012 (0.085)
Ln(Coordinate)	0.183*** (0.065)	0.186*** (0.064)	0.114 (0.079)	0.115 (0.077)	-0.038 (0.118)	-0.016 (0.116)
Ln(Link)	-0.021 (0.019)	-0.016 (0.019)	-0.025 (0.024)	-0.020 (0.024)	-0.231*** (0.045)	-0.230*** (0.045)
Ln(Status)	0.115*** (0.042)	0.100** (0.042)	0.087* (0.053)	0.071 (0.054)	0.100 (0.070)	0.060 (0.070)
Ln(Video)	0.746*** (0.042)	0.746*** (0.041)	0.618*** (0.075)	0.621*** (0.074)	0.702*** (0.071)	0.695*** (0.070)
Age	0.366*** (0.073)	0.347*** (0.074)	0.279** (0.141)	0.259* (0.142)	-0.469*** (0.063)	-0.495*** (0.062)
Observations	4,527	4,527	4,527	4,527	4,527	4,527

Panel B. Twitter						
	Like		Retweet		Reply	
FOMC	0.174***		0.219***		0.321***	
	(0.046)		(0.043)		(0.083)	
FOMC2 (base = no FOMC)						
No change		0.060		0.121***		0.096
		(0.057)		(0.044)		(0.078)
Change		0.228***		0.333***		0.114
		(0.081)		(0.088)		(0.148)
FOMC in 2020		0.199		0.205		0.650***
		(0.126)		(0.143)		(0.129)
Ln(Policy)	0.008	0.005	-0.020	-0.022	0.015	0.007
	(0.034)	(0.033)	(0.031)	(0.030)	(0.067)	(0.056)
Ln(Economy)	-0.033	-0.039	0.051	0.046	0.207***	0.173***
	(0.067)	(0.064)	(0.047)	(0.043)	(0.068)	(0.061)
Ln(Financial market)	-0.019	-0.027	-0.024	-0.033	0.095**	0.058
	(0.030)	(0.029)	(0.026)	(0.024)	(0.049)	(0.043)
Ln(Coordinate)	-0.034	-0.034	-0.117***	-0.120***	-0.118***	-0.116***
	(0.022)	(0.021)	(0.018)	(0.018)	(0.036)	(0.036)
Ln(Original)	0.922***	0.929***	0.958***	0.968***	0.887***	0.927***
	(0.066)	(0.064)	(0.048)	(0.044)	(0.073)	(0.066)
Ln(RT)	0.037	0.039*	0.168***	0.175***	0.193***	0.197***
	(0.024)	(0.023)	(0.022)	(0.022)	(0.040)	(0.039)
Ln(Quoted)	0.150***	0.155***	-0.013	-0.011	0.021	0.032
Age	1.960***	1.918***	0.551***	0.525***	1.484***	1.379***
	(0.033)	(0.031)	(0.022)	(0.021)	(0.071)	(0.071)
Observations	7,154	7,154	7,154	7,154	7,154	7,154

Notes: This table shows the results of Facebook users' reactions (Panel A) and Twitter users' reactions (Panel B) to the FED's posts at week – account level. Columns (1)-(2) show the results for the number of likes (*Like*). Columns (3)-(4) show the results for the number of Facebook shares (*Share*) or Twitter retweets (*Retweet*). Columns (5)-(6) show the results for the number of Facebook comments (*Comment*) or Twitter replies (*Reply*). *FOMC* is a dummy variable which equals 1 if an FOMC meeting takes place in a given week and 0 otherwise. *FOMC2* is a categorical variable which equals 0 for no FOMC meetings; 1 for a meeting without target rate change; 2 for a meeting with target rate change; and 3 for the FOMC meetings in 2020.  $\ln(\text{Policy})$ ,  $\ln(\text{Economy})$ , and  $\ln(\text{Financial market})$  are the natural log of 1 plus number of posts referring to the monetary policy, economy, and financial markets, respectively.  $\ln(\text{Link})$  is the natural log of 1 plus number of posts which share external links.  $\ln(\text{Status})$  is the natural log of 1 plus number of Facebook statuses.  $\ln(\text{Media})$  is the natural log of 1 plus number of Facebook posts containing media content.  $\ln(\text{Original})$ ,  $\ln(\text{RT})$ , and  $\ln(\text{Quoted})$  are the natural log of 1 plus number of original tweets, retweets, and quotes sent by the FED accounts, respectively.  $\ln(\text{Coordinate})$  is the natural log of 1 plus number of posts mentioning other FED accounts. *Age* is the natural log of 1 plus the account's age (in weeks). A constant term, account, and week of year fixed effects are included but not reported. \*, \*\*, \*\*\* indicate significance levels 1%, 5%, and 10%, respectively.