Determinants and Consequences of Return to Office Policies

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Research Question

What are the post-COVID return to office (RTO) policies of firms and what determines the policies chosen by these firms?

The employers' conundrum: what is the correct mix of in-person and remote work?

- Employees like being able to WFH (work-from-home)! Will accept lower wage in exchange for more WFH
- WFH reduces firms' office space
- Some in-person work likely more productive than fully remote
- ightarrow Trade-off: productivity vs. wage and office rent bill

Employers trying to find mix that optimizes profitability - what do they decide?

What We Do

Hand collect data on RTO policies and classify policies manually

Document facts about RTO policies of publicly-traded firms

Develop a simple model of determinants of RTO policy choice and test model predictions empirically

Examine stock market reaction to RTO announcements

Why Care

- Which policies companies choose may provide insight into productivity of WFH
- Documenting policy distribution helps provide guidance as to evolving norms
- Distribution of policy choices an input for models looking at implications of WFH for residential and commercial real estate
- NIPA will require estimates of amount of WFH going forward to adequately estimate TFP and capital stock

Preview of Results

Variation in RTO policy choice

- Roughly 80% of announcing firms choose a policy that entails a mix of in-person work and WFH
- Wide variation across industries and cities

Multivariate analysis

- Firms headquartered in cities with more expensive office space allow more off-site work
- Firms in smaller cities allow more remote work
- Larger firms require more in-person work
- Firms headed by women and/or younger CEOs allow more off-site work

No reaction from stock market to policies that deviate from industry norms

Related Literature

Spatial models of WFH (Davis et al., forthcoming; Delventhal and Parkhomenko, 2023) emphasize tradeoff depends on commute times, office rents, and residential rents

• We find higher office rents in HQ location lead to more lenient (less in-person work) policy

We build on experimental literature on employees willing to accept a wage discount to WFH (Mas and Pallais, 2017; He et al., 2021; Moens et al., 2024; Colonnelli et al., 2023)

Related Literature

Evidence on productivity benefit of being in-person:

- Emanuel and Harrington (forthcoming) show that, after controlling for adverse selection into remote work, primarily remote call-processing employees handle fewer calls than on-site workers
- Emanuel et al. (2023) show physically proximate workers get more feedback
- Atkin et al. (2022) and Brucks and Levav (2022) show that in-person helps with idea generation
- Bloom et al. (2023) find no productivity loss associated with *hybrid* work relative to fully in-person

Tension relevant for this paper is that workers may want more WFH than the most productive level

Overview of Data Collection and Classification

Data collection and classification captures two dimensions of RTO policies

- $1. \ {\rm Mix} \ {\rm of} \ {\rm in-person} \ {\rm and} \ {\rm remote} \ {\rm work}$
- 2. Level of discretion:
 - Is RTO policy set at the *firm-level* by top management? E.g., all employees must be in office 2 days/week
 - Or do lower-level managers, supervisors, team leaders, etc., have *discretion* to set a RTO policy that applies to their employees? E.g., different teams will have different requirements

Data Collection and Classification

Two key assumptions. If a firm announces a RTO policy, then

- 1. At least some work can be done remotely.
 - Firms that require 100% in-person work should not make RTO announcements
- 2. Announced policy applies to employees who can feasibly work off-site
 - Corporate, IT, or call center employees vs employees in retail sales

Data Collection

Hand collect RTO policy announcements for Russell 1000 firms

- Russell 1000 constituents as of Dec 2019
- Announcement period: March 1, 2020-June 1, 2023

Two sources for policy announcements:

- Factiva
 - Collects news and information on millions of firms using "newspapers, magazines, journals, websites, blogs, market research and multimedia formats from credible, reliable sources."
 - Article types include popular press, earnings calls, regulatory filings, television interviews, etc.
- Flex Index by Scoop
 - Scoop collects its data from "publicly-available information and statements" and via "company submissions from current employees"

Data Collection: Factiva

Begin with a keyword/phrase search in Factiva for each firm

Flag each article published between 1March2020 and 1June2023 that contains one or more of

Factiva article search phrases						
hybrid work	work from home					
remote work	back to the office					
working remotely	back to office					
remotely working	flexible work					
return to work	working flexibly					
return to office	flexible working					
return-to-office	hybrid model					
return to the office	return to workplace					
back to work	in person					
back-to-work	in-person					
reopen						

Data Collection

Read each Factiva article manually and filter out articles that do not explicitly announce a RTO policy

- Keep only the first announcement observed during sample period
- Factiva search yields 839 announcements of initial Russell 3000

For remaining firms, search Flex Index and record RTO policy type when available $% \left({{\left[{{{\rm{TO}}} \right]}_{\rm{TO}}}} \right)$

- Collect total of 434 additional firms using Flex Index
- Caveat: Flex Index does not track the announcement date

1,273 Announcers of initial Russell 3000 index. Remaining firms are "Non-announcers"

Assign 1,273 Announcers to 1 of 5 categories

Data Classification

- 1. In-person: most employees must work in the office 5 days per week
- 2. <u>Remote</u>: most employees are allowed to work remotely 5 days per week
- 3. Hybrid: most employees must work a mix of in-office and remote, and policy is determined by top management
- 4. <u>Flexible</u>: most employees work a mix, but type of RTO policy is at discretion of lower-level managers/supervisors
- 5. $\underline{\text{Mixed}}:$ multiple types of RTO policies and policy is determined by top management
 - E.g., 50% of employees will be fully Remote and 50% Hybrid

If more than one policy type mentioned: use least stringent examples

Data Classification

Ranking RTO policies: how stringent is the policy?

Extremes:

- Most stringent: In-Person
- Least stringent: Remote

Interior solutions:

- Hybrid: most employees fall under same policy, no discretion for managers
- Flexible: employees fall under different policies, discretion for managers
- Mixed: employees fall under different policies, no discretion for managers



Other Data

- Firm characteristics & HQ location: Compustat
- CEO characteristics: Boardex
- Office space effective rent: Compstak
- Residential house price: Realtor.com listing prices by MSA
- WFH feasibility measure: Dingel-Neiman 2020 (DoL O*NET)
 - Proxy for pre-Covid feasibility of remote work
 - Measures fraction of work that can be done remotely by 2-digit NAICS
 - Feasibility based on industry occupation shares
- Commute time: 5-year 2019 American Community Survey (ACS)
- Stock returns from CRSP

All control variables measured as of end of 2019

Summary Statistics

Summary Stats

	N	Mean	Median	SD	Min	Max
Firm Size (Total Assets (\$bn))	839	36.8	3.3	174.9	0	2687.
Firm Age	839	24	20	20.2	0	73
DN Share	838	0.6	0.5	0.2	0.1	0.9
Commute Time (Minutes)	787	28	28	4.1	18.2	35
Office Rent (Avg Median Rent/SF)	810	31.1	26.1	13	12.3	56
Home Price (Avg Median Price/SF)	778	252.2	205.6	152.5	66	682.
City Size (Pop. in Millions)	787	3.1	2.4	2.8	0	9.4
CEO Age	751	58.7	59	7.3	35	91
CEO is Female	751	0.1	0	0.3	0	1
RTO Policy	839	2	2	0.4	1	3

Announcers and Non-announcers

839 firms announce RTO policies during the sample period, and announcers tend to be larger than non-announcers

Firm Size (assets in \$billions) by Announcer vs Non-Announcer

	Ν	Mean	Median	SD	Min	Max
Announcer - Factiva sample	839	36.8	3.28	174.87	0.02	2,687.38
Announcer - Flex index	434	19.75	5.98	50.58	0.09	551.67
Non-announcer	1446	4.72	1.5	11.07	0.01	148.19

Announcement Timing

RTO Policies for Announcers, Excluding Flex Index



Announcement Timing

Is announcement driven by economic fundamentals or public health concerns?

- Early announcements may be driven by lockdowns and/or health concerns
- Announcements made after resolution of lockdowns and health-related uncertainty may be more related to economic fundamentals

Split sample based on roll-out of COVID-19 vaccines in US

- Early Announcers: March 1, 2020 to June 30, 2021
- Late Announcers: July 1, 2021 to June 1, 2023

	Ν	Mean	Median	SD	Min	Max
Early Announcer	191	87.3	4.2	322.4	0.04	2,687.4
Late Announcer	648	21.9	3.0	90.08	0.02	1,927.6

Firm Size (assets in \$billions)

Larger Early Announcers may be market or industry leaders \rightarrow subsequent announcements may follow leaders

Distribution of RTO policies



Interior solutions are modal choice: Hybrid, Flexible, and Mixed

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Distribution of RTO Policies by Firm Size



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Modeling RTO Policy Choice

What economic determinants should be associated with RTO policy?

Simple production economy (Jermann, 1998)

- Profit maximizing firms in industry \boldsymbol{j} and city \boldsymbol{c}
- Firms choose RTO policy $P \in [0,1]$ that partially determines TFP, office lease bill, and wage bill

$$\Pi_{j,c,t} = \underbrace{A_{j,c}(P_{j,c,t})}_{\mathsf{TFP}} F(\underbrace{K_{j,c,t}, N_{j,c,t}}_{\mathsf{Non RE cap \times labor}}) - \underbrace{\alpha_1 r_{c,t}^o N_{j,c,t} g(P_{j,c,t})}_{\mathsf{Office rent expense}} - \underbrace{\hat{w}_j(P_{j,c,t}) N_{j,c,t}}_{\mathsf{Wage expense}}$$

Higher P = more stringent policy requiring more time in the office

TFP increasing in level of in-person work $(A'_{j,c}(P_{j,c,t}) > 0)$

More in-person work requires more office space ($g'(P_{j,c,t}) > 0$)

Modeling RTO Policy Choice

Wage bill:



where $g'(P_{c,j,t}) > 0$

More in-person work requires higher wage $\rightarrow \alpha_2 > 0$

Higher commuting costs reduce labor supply (Ready et al., 2019) $ightarrow lpha_3 > 0$

More remote work requires more residential space (Stanton and Tiwari, 2021) $\rightarrow \alpha_4 > 0$

Predictions

- 1. Higher productivity *loss* from off-site work: $\uparrow P$ (more stringent policy)
 - Firms in industries with greater pre-COVID productivity of remote work will choose lower P
- 2. More expensive office space: $\downarrow P$
 - Firms in cities with more expensive pre-COVID office rent will will choose more lower P
- 3. Longer commute times: $\downarrow P$
 - Because firms must increase wages to compensate for commute
- 4. More expensive residential real estate: $\uparrow P$
 - Because firms must increase wages to compensate for need for additional home office space
- 5. Cities where in-person TFP is higher (i.e., large cities) will have more in-person work

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Determinants of RTO policies

Baseline cross-sectional regression:

 $P_{i} = \beta_{1} DNShare_{j} + \beta_{2} OfficeRent_{c} + \beta_{3} HomePrice_{c}$ $+ \beta_{4} CommuteTime_{c} + \beta_{5} CitySize_{c} + \beta_{x} X_{i} + \epsilon_{i}$

Ordered dependent variable based on our classification

- *P* = 3: In-person
- P = 2: Mixed or Hybrid or Flexible
- *P* = 1: Remote

Determinants of RTO policies

 $\begin{aligned} P_{i} &= \beta_{1} DNShare_{j} + \beta_{2} OfficeRent_{c} + \beta_{3} HomePrice_{c} \\ &+ \beta_{4} CommuteTime_{c} + \beta_{5} CitySize_{c} + \beta_{x} X_{i} + \epsilon_{i} \end{aligned}$

Economic determinants (included in regressions as tercile indicators):

- *DNShare*: Dingel-Neiman industry share (2018 data), proxy for pre-COVID feasibility of remote work
- OfficeRent: 2019 city median net effective rent per square foot
- HomePrice: 2019 city median listing price per square foot
- *CommuteTime*: city average commute time (2019 5-year ACS)
- CitySize: city population (2019 5-year ACS)
- X_i : Firm size, firm age, CEO age, and CEO gender (all as of 2019)

Determinants of RTO policies

Use Factiva data only

Negative coefficient = more likely to announce remote work policy $(\downarrow P)$

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
DN Share T2	-0.086				-0.092	-0.098		-0.034	
DN Share T3	0.15				0.066	0.0020		-0.043	
Office Rent T2		-0.36***			-0.26*	-0.24*	-0.21	-0.39***	-0.34**
Office Rent T3		-0.61***			-0.51*	-0.51*	-0.54**	-0.78***	-0.76***
Home Price T2		-0.020			-0.0092	0.029	0.055	-0.020	0.0025
Home Price T3		0.22			0.25	0.32	0.37*	0.37	0.39*
Commute Time T2			-0.015		-0.026	0.0042	0.025	0.094	0.090
Commute Time T3			-0.068		-0.25	-0.22	-0.12	0.051	0.12
City Size T2				-0.19*	-0.076	-0.057	-0.10	-0.090	-0.12
City Size T3				0.25**	0.46**	0.43**	0.35*	0.20	0.13
Firm Size T2						0.20	0.21	0.17	0.17
Firm Size T3						0.29**	0.30**	0.31**	0.30**
Firm Age T2						0.18	0.19	0.18	0.18
Firm Age T3						0.23	0.20	0.11	0.063
CEO Age T2								0.19	0.19
CEO Age T3								0.38***	0.39***
CEO is Female								-0.29*	-0.32**
Industry FE							\checkmark		\checkmark
Observations	838	775	787	787	751	751	751	695	695
$Pseudo-R^2$	0.0039	0.016	0.00040	0.016	0.034	0.048	0.057	0.060	0.072

Marginal Effects

- Most expensive office space: $prob(In-person) \downarrow 10 p.p.$
- Largest firms: prob(In-person) \uparrow 5 p.p.
- Female CEOs: prob(In-person) ↓ 4 p.p.

Early vs. Late Announcers

	(1)	(2)	(3)	(4)	(5)	(6)
DN Share T2	0.11	-0.098	0.16	-0.032		
DN Share T3	0.023	0.0014	-0.057	-0.041		
Office Rent T2	-0.16	-0.24*	-0.33*	-0.39***	-0.24	-0.34**
Office Rent T3	-0.55*	-0.51*	-0.87***	-0.78***	-0.80**	-0.76***
Home Price T2	0.094	0.028	0.043	-0.019	0.069	0.0019
Home Price T3	0.31	0.32	0.44	0.37	0.44	0.39*
Commute Time T2	0.11	0.0042	0.19	0.094	0.17	0.090
Commute Time T3	0.038	-0.22	0.26	0.051	0.34	0.12
City Size T2	-0.17	-0.057	-0.21	-0.090	-0.23	-0.12
City Size T3	0.25	0.43**	0.070	0.20	0.0026	0.13
Firm Size T2	0.12	0.20	0.11	0.17	0.077	0.17
Firm Size T3	0.32**	0.29**	0.28*	0.31**	0.22	0.29**
Firm Age T2	0.13	0.18	0.12	0.18	0.15	0.18
Firm Age T3	0.17	0.23	0.11	0.11	0.077	0.063
CEO Age T2			0.21	0.19	0.19	0.19
CEO Age T3			0.35**	0.38***	0.32**	0.39***
CEO is Female			-0.38**	-0.29*	-0.43***	-0.32**
Late Announcement		-0.0059		0.012		-0.011
Industry FE					\checkmark	✓
Sample	Post-Vax	Full	Post-Vax	Full	Post-Vax	Full
Observations	573	751	539	695	539	695
$Pseudo-R^2$	0.045	0.048	0.060	0.060	0.076	0.072

• Stringency of late announcements not significantly different from early, consistent with late announcers following same policies as early announcers

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Other Specifications

Including Flex Index data **Press**

Continuous variables **Press**

Median indicators **Press**

Four category dependent variable

- In-person=4, Hybrid=3, Flexible=2, Remote=1
- Exclude Mixed regs

Employee-location-weighted controls

- Employees often work outside the headquarters city and industry
- Redefine city-specific controls using weighted average across all cities in which firm has establishments res

Most robust results are that larger firms choose more stringent policies, and female-headed firms choose less stringent policies

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What happens to leasing?

Do firms sign fewer office leases post-COVID conditional on their RTO choice?

- Identify all office leases signed in HQ city each year from 2015-2023
- Compare *In-person* policies to all other policies–all other policies entail *some* reduction in office space demand
- Estimate change in number of leases (new + renewals) pre- and post-COVID:

 $NLeases_{i,t} = \beta_1 Inperson_i + \beta_2 Post2020_t + \beta_3 Inperson \times Post2020 + \beta_x X_{i,t} + \epsilon_{i,t}$

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What happens to leasing?

	(1)	(2)	(3)
Inperson	-0.076	-0.019	-0.18
	(0.23)	(0.22)	(0.22)
Post-2020	-0.40***	-0.70***	-0.62***
	(0.14)	(0.17)	(0.16)
Inperson×Post-2020	0.34	0.56*	0.52
	(0.37)	(0.32)	(0.32)
Total assets		8.0e-07***	6.0e-07***
		(9.3e-08)	(9.2e-08)
CEO age		0.0013	0.0016
		(0.0060)	(0.0060)
Female CEO		0.17	0.35**
		(0.16)	(0.15)
Firm Age		0.0082***	0.015***
		(0.0022)	(0.0027)
Industry FE			\checkmark
Observations	724	570	566
$Pseudo-R^2$	0.014	0.31	0.36

Some evidence that non-In-person firms sign fewer leases relative to In-person

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Announcement stock returns

Does stock market react to RTO announcements? If so, how is policy stringency viewed by market?

- Focus on In-person, Hybrid, Flexible, and Remote announcements
- Rescale stringency: In-person=4, Hybrid=3, Flexible=2, Remote=1
- Keep only Late Announcements (during or after 2021Q3)

Industry relative policy stringency

- Compute rolling average policy stringency by 2-digit NAICS over announcement dates
- Compute *deviationscore_i* equal to difference between numeric announcement value for firm *i* and lagged industry-average value

Example: assume i is fifth announcer in industry j

- Two previous firms announced Hybrid, and two announced Remote
- If i announces In-person, then $deviations core_i = 4 \frac{3+3+1+1}{4} = 2$

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Announcement stock returns

Dependent variable: cumulative abnormal returns in $\left[-2,+2\right]$ day window surrounding announcement date

- Raw returns data from CRSP
- Use excess return over R_m and CAPM-adjusted

Independent variable $deviation_i$ in four categories:

- 1. Positive Deviation, which is an indicator variable equal to one when $deviations core \geq 0$
- 2. Large Positive Deviation, which is an indicator variable equal to one when $deviationscore \geq 1$
- 3. Negative Deviation, which is an indicator variable equal to one when deviationscore < 0
- 4. Large Negative Deviation, which is an indicator variable equal to one when deviationscore < -1

Restrict to industries with at least 5 firms that announce during or after 2021Q3 to ensure sufficient observations to compute averages

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Announcement stock returns

Summary statistics for announcement deviation measures

	Ν	Mean	Median	SD	Min	Max
Deviation score	467	0.02	0.26	0.79	-2.17	2
Positive Deviation	467	0.75	1.00	0.43	0.00	1.00
Large Positive Deviation	467	0.09	0.00	0.29	0.00	1.00
Negative Deviation	467	0.25	0.00	0.43	0.00	1.00
Large Negative Deviation	467	0.11	0.00	0.32	0.00	1.00

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Market Excess Returns

(1) (2) (3) (4) (5) (6) (7) (8) Positive Deviation -0.0082 -0.0083 (0.0063) (0.0063) (0.0063) Large Positive Deviation 0.012 0.012 0.012 (0.0163)										
Positive Deviation -0.0082 -0.0083 (0.0062) (0.0063) (0.0063)										
(0.0062) (0.0063)										
Large Positive Deviation 0.012										
Large Fositive Deviation -0.012 -0.012										
(0.0085) (0.0087)										
Negative Deviation 0.0082 0.0083										
(0.0062) (0.0063)										
Large Negative Deviation 0.0050 0.004	43									
(0.0097) (0.009	96)									
Log Firm Size -0.0085 -0.0072 -0.0085 -0.007	75									
(0.012) (0.012) (0.012) (0.012)	2)									
Observations 467 <t< td=""><td>,</td></t<>	,									
R^2 0.004 0.004 0.004 0.001 0.006 0.005 0.006 0.007	2									
[-2.+2] day window										
Positive Deviation	=									
(0.0078) (0.0070)										
(0,0000) (0,010)										
Negative Deviation 0.0043 0.0042										
(0 0078) (0 0070)										
Large Negative Deviation 0.0085 0.0005										
(0.013) (0.012)										
Log Firm Size 0.010 0.011 0.010 0.012										
Observations 467 467 467 467 467 467 467 467 467	-									
R ² 0.001 0.001 0.001 0.001 0.002 0.003 0.002 0.003										

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CAPM Abnormal Returns

			[-1,+1] day	window						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		
Positive Deviation	-0.0045				-0.0046					
	(0.0034)				(0.0034)					
Large Positive Deviation		-0.00042				-0.000015				
		(0.0042)				(0.0042)				
Negative Deviation		. ,	0.0045			. ,	0.0046			
0			(0.0034)				(0.0034)			
Large Negative Deviation			()	0.0045			()	0.0040		
0.0				(0.0049)				(0.0048)		
Log Firm Size				()	-0.0072	-0.0070	-0.0072	-0.0065		
					(0.0062)	(0.0062)	(0.0062)	(0.0061)		
Observations	467	467	467	467	467	467	467	467		
R^2	0.004	0.000	0.004	0.002	0.008	0.003	0.008	0.005		
[2 + 2] day window										
			[-2, +2] uay	window						
Positive Deviation	-0.0087				-0.0089					
	(0.0062)				(0.0062)					
Large Positive Deviation		-0.012				-0.012				
		(0.0080)				(0.0081)				
Negative Deviation			0.0087				0.0089			
			(0.0062)				(0.0062)			
Large Negative Deviation				0.0071				0.0066		
				(0.0096)				(0.0095)		
Log Firm Size					-0.0076	-0.0063	-0.0076	-0.0063		
					(0.012)	(0.012)	(0.012)	(0.012)		
Observations	467	467	467	467	467	467	467	467		
R^2	0.005	0.004	0.005	0.002	0.006	0.005	0.006	0.003		

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We collect data on publicly-traded firms' RTO policies

Hybrid/flexible policies are most common

Consistent with simple tradeoff model, office rents and city size affect choice of RTO policy

Firm size and CEO characteristics also correlated with policy type

No stock market reaction to deviation in policy choice

In-person: Ally Financial, September 3, 2022

Ally Financial encouraged employees to return to its offices in recent months. Like many companies, it found that some employees stayed home anyway, said Kathie Patterson, the financial-services company's HR chief. Ally has hired close to 2,000 people during the pandemic, Ms. Patterson said, and new employees need to learn alongside company veterans. The company sent a message to staff in recent weeks to remind employees that office attendance is expected, and leaders are telling staff to reiterate that point. "There is a real strong push now, after Labor Day, for all employees to come back into the workplace," she said "We want a more consistent schedule" For those workers who have spent little to no time in the office, managers are reaching out to have individual conversations, Ms. Patterson said, and may give staffers a deadline to make personal arrangements to return. Further action could take place in the year ahead. "We're prepared to have a very clear conversation that this position is in-office," she said. "If they're not in the office, it could be seen as a form of insubordination. but we have not gotten to that point yet."

Remote: Brighthouse Financial, January 10, 2022

Throughout the COVID-19 pandemic, the health and safety of our employees and their families has been a top priority. At the end of 2021, all Brighthouse Financial offices remained closed as we closely monitored the current environment. This spring, we plan to begin transitioning to a flexible, hybrid work model that allows our employees to choose whether they want to work fully remotely or use our offices. While we hope that the worst of the pandemic is behind all of us, other headwinds, including geopolitical and macroeconomic ones, have emerged more recently. In this challenging environment, Brighthouse Financial remains dedicated to our mission to help people achieve financial security. Uncertain times further underscore the importance of protecting individuals' and families' financial futures, and we at Brighthouse Financial are proud to be one of the largest providers of annuities and life insurance in the U.S. 1 It is that sense of pride and purpose that drives us every day to deliver on our mission while living our company's core values of collaboration, adaptability and passion.

Hybrid: Wells Fargo, July 16, 2021

Now, Wells Fargo's back-to-office plans will be organized by job function and location, and flexibility will vary, the company said. But the details on such flexibility are still fuzzy. Technology, corporate and back-office employees of the \$1.9 trillion-asset bank will return in October, according to the memo. They will be offered at least some degree of flexibility in terms of how many days they spend in the office and how many days they work from home. For technology teams, Wells "will allow more flexibility to work remotely," while corporate and back-office staffers may have the option of splitting their weeks between office and home, spending at least three days a week in the office, the company said. What flexibility looks like for call center teams is not vet clear. Wells said management is trying to figure out "how to best offer flexibility for contact center and operations roles going forward" and that the ability to work remotely will depend on factors such as the type of job and individual employees' experience.

Flexible: Charles Schwab Corp, August 19, 2021

The firm also announced additional steps it is taking to address pandemic concerns and provide workplace flexibility for its employees going forward. In light of current circumstances, the firm has delayed a full Return to Office until January 2022, at the earliest. In the meantime, employees can continue to work from home, or return to the office on a voluntary basis. Once back in the office, Schwab employees will enjoy additional workplace flexibility, based on a hybrid work schedule. Employees will also have the ability to work with their manager to determine an approach that works for their individual situation, should they need additional flexibility.

Mixed: KeyCorp, July 20, 2021

At Key, the resurgence of the coronavirus hasn't impacted our backto-the-office strategies, but it could if it continues. By the end of September, we expect to have our whole team back in the office. We have 17,000 teammates nationwide. Half will work four to five days in the office. Another 30% will work three days in the office on a "reservations" basis, and 20% will work remotely from home. In the Cleveland market, that means about 1,000 of our associates in our downtown Cleveland headquarters and other Northeast Ohio offices will continue to work remotely.

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Including Flex Index Data

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
DN Share T2	-0 26***				-0 21**	_0 10**		-0.16*	
DN Share T3	-0.022				_0.070	-0.10		_0.21**	
Office Rent T2	0.022	-0.078			0.076	0.10	0.056	-0.083	-0.059
Office Rent T3		-0.36**			-0.31	-0.30	-0.28	-0.45**	-0 41**
Home Price T2		-0.21**			-0 21**	-0.17*	-0.18*	-0.21*	-0.21*
Home Price T3		-0.039			0.0068	0.068	0.082	0.022	0.033
Commute Time T2			-0.042		0.0050	0.013	0.018	0.094	0.099
Commute Time T3			-0.18**		-0.054	-0.054	-0.018	0.13	0.16
City Size T2				-0.23***	-0.17	-0.15	-0.18*	-0.15	-0.17
City Size T3				0.048	0.17	0.15	0.11	0.035	-0.0054
Firm Size T2						0.099	0.091	0.081	0.064
Firm Size T3						0.24**	0.25**	0.23**	0.22**
Firm Age T2						0.098	0.083	0.063	0.046
Firm Age T3						0.17*	0.15	0.061	0.026
CEO Age T2								0.19**	0.18**
CEO Age T3								0.35***	0.34***
CEO is Female								-0.32**	-0.34***
Industry FE							~		√
Observations	1,271	1,168	1,185	1,185	1,131	1,131	1,131	1,047	1,047
$Pseudo-R^2$	0.0062	0.012	0.0026	0.0065	0.020	0.028	0.035	0.042	0.050

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Continuous Independent Variables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
DN Share	-0.26				-0.26	-0.22		-0.23	
Office Rent		-0.0049			-0.031***	-0.029***	-0.027***	-0.028***	-0.026**
Home Price		-0.00065			0.00074	0.00075	0.00072	0.00072	0.00068
Commute Time			-0.0035		0.027	0.029	0.030	0.035	0.035
City Size				0.023	0.065**	0.054*	0.050	3.5e-08	3.0e-08
Firm Size						0.00032	0.00035	0.00041	0.00044*
Firm Age						0.0053**	0.0044*	0.0042*	0.0029
CEO Age								0.020***	0.021***
CEO is Female								-0.31**	-0.34**
Industry FE							√		~
Observations	838	775	787	787	751	751	751	695	695
$Pseudo-R^2$	0.0018	0.011	0.000095	0.0020	0.027	0.035	0.044	0.048	0.061

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Median Indicators

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
DN Share Above Median	-0.082				-0.086	-0.11		-0.086	
Office Rent Above Median		-0.16			-0.24	-0.17	-0.13	-0.14	-0.11
Home Price Above Median		-0.052			-0.092	-0.098	-0.073	-0.16	-0.12
Commute Time Above Median			0.043		0.25	0.23	0.22	0.26	0.24
City Size Above Median				0.013	-0.066	-0.036	-0.061	-0.049	-0.075
Firm Size Above Median						0.31***	0.30***	0.32***	0.30***
Firm Age Above Median						0.18*	0.18*	0.091	0.073
CEO Age Above Median								0.28***	0.27***
CEO is Female								-0.33**	-0.37**
Industry FE							√		~
Observations	838	775	787	787	751	751	751	695	695
$Pseudo-R^2$	0.00081	0.0053	0.00022	0.000020	0.010	0.029	0.040	0.041	0.054

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Four Category Classification

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
DN Share T2	-0.053				-0.085	-0.083		-0.038	
DN Share T3	0.14				0.062	0.031		-0.013	
Office Rent T2		-0.22*			-0.14	-0.13	-0.11	-0.26**	-0.22*
Office Rent T3		-0.35*			-0.32	-0.32	-0.32	-0.52**	-0.48*
Home Price T2		-0.031			-0.033	-0.020	-0.0061	-0.051	-0.036
Home Price T3		0.12			0.14	0.18	0.21	0.21	0.22
Commute Time T2			0.036		0.011	0.025	0.021	0.089	0.070
Commute Time T3			0.040		-0.12	-0.098	-0.040	0.11	0.15
City Size T2				-0.12	-0.070	-0.058	-0.090	-0.060	-0.079
City Size T3				0.26**	0.38*	0.35*	0.31	0.21	0.17
Firm Size T2						0.064	0.065	0.051	0.047
Firm Size T3						0.14	0.15	0.16	0.15
Firm Age T2						0.15	0.16	0.17	0.17
Firm Age T3						0.15	0.12	0.081	0.047
CEO Age T2								0.23**	0.23**
CEO Age T3								0.28**	0.30**
CEO is Female								-0.45***	-0.50***
Industry FE							\checkmark		\checkmark
Observations	737	679	693	693	660	660	660	614	614
$Pseudo-R^2$	0.0021	0.0045	0.00012	0.010	0.016	0.020	0.026	0.033	0.042

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Employee-Location Weighted

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
DN Share T2	-0.086				-0.011	-0.040		0.019	0.21
DN Share T3	0.15				0.18	0.073		0.020	0.39
Emp-weighted Office Rent T2		-0.076			-0.20	-0.22	-0.18	-0.27	-0.24
Emp-weighted Office RentT3		-0.16			-0.23	-0.25	-0.22	-0.40	-0.33
Emp-weighted Home Price T2		-0.065			-0.088	-0.077	-0.075	0.0042	0.030
Emp-weighted Home Price T3		-0.20			-0.17	-0.13	-0.10	-0.035	0.27
Emp-weighted Commute Time T2			-0.029		-0.014	-0.0018	-0.015	0.0099	-0.0074
Emp-weighted Commute Time T3			-0.25**		-0.23	-0.15	-0.16	-0.088	-0.093
Emp-weighted City Size T2				0.11	0.26*	0.19	0.19	0.20	0.21
Emp-weighted City Size T3				0.0042	0.37**	0.32**	0.31**	0.27*	0.24
Firm Size T2						0.19	0.20	0.18	0.16
Firm Size T3						0.38***	0.40***	0.43***	0.40***
Firm Age T2						0.091	0.12	0.068	0.066
Firm Age T3						0.12	0.078	-0.040	-0.088
CEO Age T2								0.22*	0.19
CEO Age T3								0.41**	0.37**
CEO is Female								-0.31**	-0.34**
Industry FE							\checkmark		~
Observations	838	799	799	799	798	798	798	723	723
$Pseudo-R^2$	0.0039	0.0095	0.0063	0.0011	0.019	0.033	0.041	0.046	0.060

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