

Hate Crimes and Analyst Forecast Behaviors Amidst the COVID-19 Pandemic

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Abstract

1. The study investigates changes in the forecasting behavior of East Asian financial analysts in the U.S. during the increase in crimes against Asians amid COVID-19.
2. A Difference-in-Differences (DID) analysis reveals that East Asian analysts made more conservative and pessimistic financial forecasts than their non-East-Asian counterparts.
3. East Asian analysts also updated their forecasts less frequently and were not as prompt in their reporting during the pandemic.
4. The diminished quality of forecasts by East Asian analysts is linked to greater instances of analyst herding behavior, a drop in the accuracy of consensus forecasts, and reduced abnormal returns after earnings announcements.
5. The research suggests that racial bias and animosity could negatively impact the forecasting behaviors of analysts from ethnic minorities, leading to a decline in market efficiency and valuation.

Objection

1. The enactment of the new Hate Crimes Act reflects a national commitment to combating hatred and racism.
2. Despite this, the economic impact of increased hate crimes against Asians during COVID-19, particularly on their mental health and job performance in the U.S., remains under-explored.
3. Asian Americans are dealing with both the physical danger of hate crimes and the mental stress from perceived social discrimination, affecting their professional conduct.
4. The negative effects on Asian American professionals may impede the U.S. economic recovery from the pandemic.
5. There's a gap in empirical finance research regarding the impact of hate crimes, with little existing study on how racial hostility influences the financial forecasting behavior of analysts.

Methods

$$\begin{aligned}
 & \text{Bold}_{i,j,t} \\
 & = \beta_0 + \beta_1 \text{Asian}_i + \beta_2 \text{Post}_t + \beta_3 \text{Asian}_i * \text{Post}_t + \beta_4^T X_{i,j,t} \\
 & + \beta_4^T Z_{j,t} + \gamma + e_{it}
 \end{aligned}$$

1. The Dependent variable is bold forecasts.
2. The initial results without control variables and fixed effects
3. Subsequent results include a range of fixed effects for the analyst, firm, and year-month.
4. The calculated standard errors are adjusted for clustering at the analyst-firm level to improve the robustness of the findings.

Results

Figure 1. Daily New Incidents of Anti-Asian Crime

The figure exhibits the time-series distribution of Anti-Asian hate crime incidents from January 2019 to September 2022. The yellow bar represents the daily number of new incidents. The figure is plotted based on the data source of Anti-Asian Hate Crime Tracker collected by 1 Thing Inc., a non-profit organization against racism.

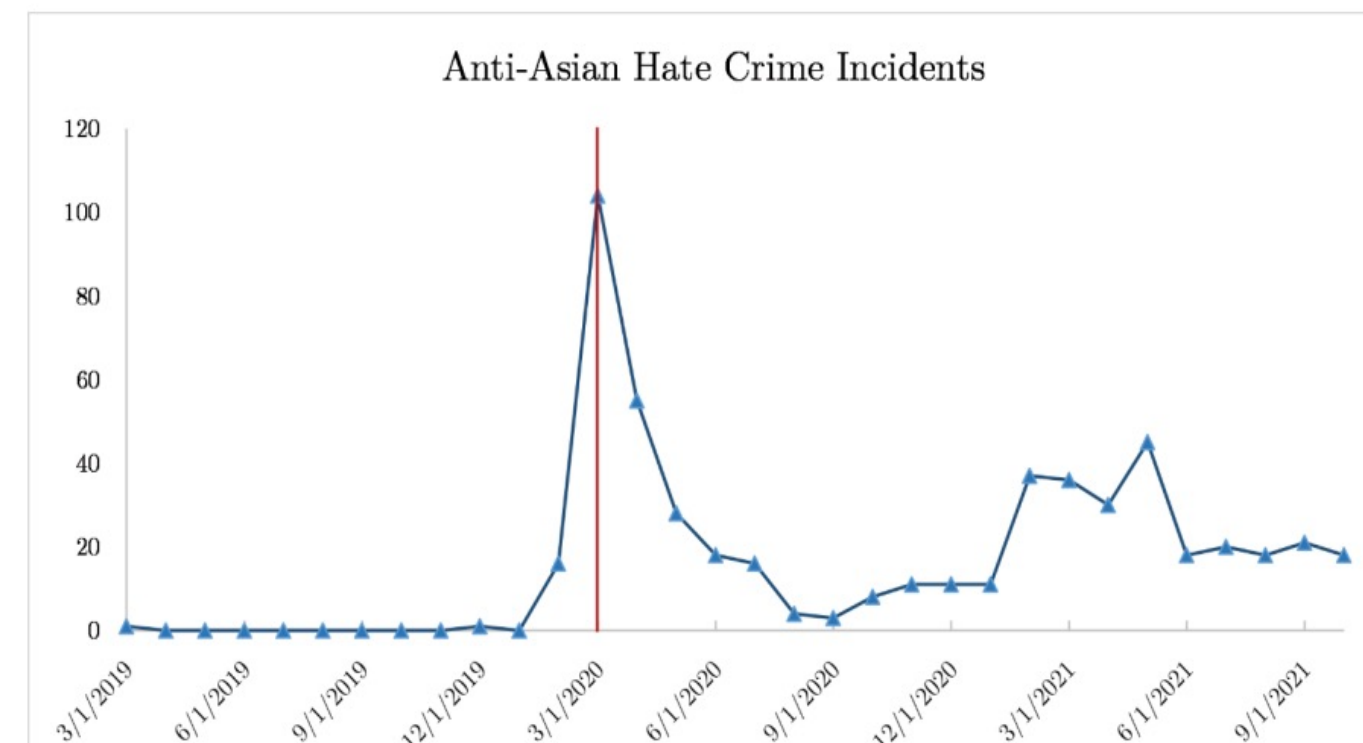


Table 4: Results of Difference in Differences for Relative Forecast Boldness

The sample is at analyst forecast level and ranges from March 2019 through November 2021. The results are estimated by linear regressions with different granular fixed effects, and standard errors are two-way clustered at the analyst-firm level. Standard errors are in the parentheses and *, **, *** denote levels of significance at 10%, 5% and 1%, respectively.

	(1)	(2)	(3)	(4)	(5)
<i>Post</i> × <i>East_Asian</i>	-0.828* (0.45)	-0.792* (0.47)	-1.206*** (0.45)	-1.154*** (0.45)	-1.307*** (0.44)
<i>Post</i>	2.249*** (0.16)	2.228*** (0.17)	3.475*** (0.24)		
<i>East_Asian</i>	2.479*** (0.41)	1.966*** (0.43)			
<i>Forecast_Age</i>		3.771*** (0.08)	3.612*** (0.08)	3.802*** (0.08)	3.859*** (0.08)
<i>All_Star</i>		0.282 (0.29)	0.976 (0.68)	1.045 (0.68)	1.317** (0.67)
<i>Experience</i>		-0.007 (0.01)	-0.995*** (0.15)		
<i>Expwithfirm</i>		0.051** (0.02)	0.014 (0.02)	-0.002 (0.02)	0.105*** (0.02)
<i>Coveragesize</i>		-0.188*** (0.03)	-0.074** (0.03)	-0.003 (0.03)	-0.008 (0.03)
<i>Coveragefocus</i>		0.411*** (0.04)	0.122** (0.05)	0.091* (0.05)	0.092* (0.05)
<i>Forecastfreq_Lag</i>		0.032*** (0.01)	0.050*** (0.01)	0.003 (0.01)	0.004 (0.01)
<i>Top_Broker</i>		0.408* (0.21)	-0.105 (0.58)	-0.170 (0.58)	-0.317 (0.57)
<i>Size</i>		-0.006*** (0.00)	-0.007*** (0.00)	-0.007*** (0.00)	0.008 (0.01)
<i>MTOB</i>		-1.223 (0.88)	-0.667 (0.87)	-0.469 (0.87)	0.291 (0.90)
<i>Leverage</i>		3.990* (2.33)	2.321 (2.09)	2.425 (2.07)	1.077 (2.04)
<i>ROA</i>		-12.531*** (3.77)	-8.716*** (2.58)	-8.968*** (2.45)	-4.185* (2.40)
<i>Earngrowth</i>		7.350*** (2.28)	4.782** (2.09)	4.784** (2.05)	1.480 (1.99)
<i>Instown</i>		-2.507*** (0.43)	-2.430*** (0.42)	-2.714*** (0.42)	-0.224 (1.15)
<i>BM</i>		-0.098* (0.05)	0.007 (0.05)	-0.085 (0.05)	-0.253*** (0.07)
<i>RD</i>		14.103*** (2.21)	8.547*** (2.64)	6.786** (2.64)	2.028 (3.83)
Analyst FE			Y	Y	Y
Year Month FE				Y	Y
Firm FE					Y
Adjusted R ²	0.002	0.015	0.047	0.057	0.079
No. of observations	293,501	259,052	259,033	259,033	259,018

Figure 3. Parallel Trend Test by Event Study

The figure demonstrates the results of the parallel trend test in support of the main empirical evidence based DID approach. The parallel trend test is conducted in an event study setting wherein the key variable of interest, *Boldrel* is regressed against temporal dummies and their interaction with *East_Asian*, while controlling other covariates and fixed effects, the same as the specification in Column (5) of Table 4. The parameter estimates of the interaction terms are then plotted against the corresponding quarters relative to the event date, March 2020. Zero means December 2019 to February 2020. One means March 2020 to May 2020.

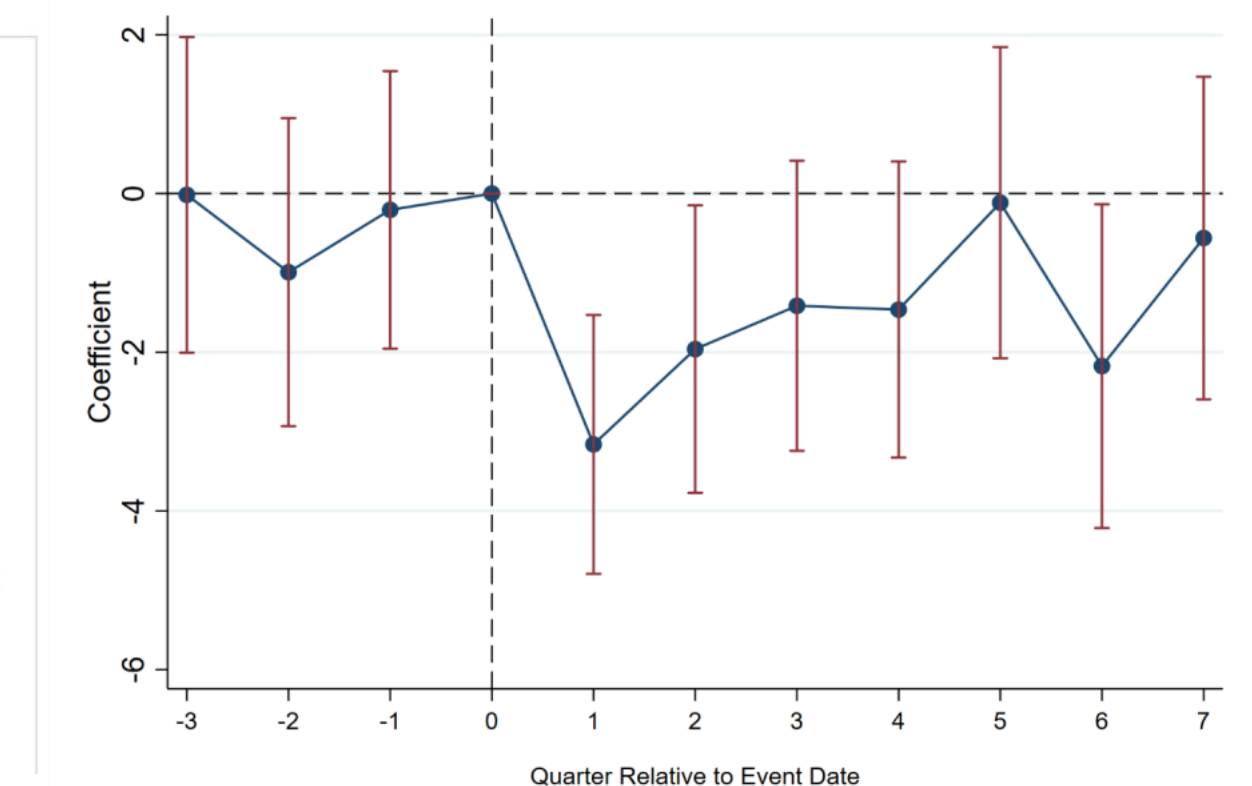


Table 6: Mechanism Analysis Using Staggered DiD

The sample is at analyst forecast level and ranges from March 2019 through November 2021. The results are estimated by linear regressions with different granular fixed effects, and standard errors are two-way clustered at the analyst-firm level. Standard errors are in the parentheses and *, **, *** denote levels of significance at 10%, 5% and 1%, respectively.

	(1)	(2)	(3)	(4)	(5)
<i>East_Asian</i> × <i>Neg_Cases</i>	0.409 (0.38)	0.314 (0.41)	-0.078 (0.40)	0.015 (0.40)	-0.126 (0.40)
<i>Neg_Cases</i>	0.649*** (0.15)	0.683*** (0.15)	0.671*** (0.15)	0.093 (0.18)	0.145 (0.18)
<i>Crime</i> × <i>East_Asian</i>	-0.130** (0.05)	-0.163*** (0.06)	-0.106* (0.06)	-0.102* (0.06)	-0.121** (0.06)
<i>Crime</i>	0.574*** (0.02)	0.577*** (0.02)	0.669*** (0.02)	0.251*** (0.03)	0.246*** (0.03)
<i>East_Asian</i>	1.859*** (0.32)	1.448*** (0.33)			
Controls		Y	Y	Y	Y
Analyst FE			Y	Y	Y
Year Month FE				Y	Y
Firm FE					Y
Adjusted R ²	0.006	0.019	0.051	0.058	0.079
No. of observations	293,501	258,851	258,832	258,832	258,817

Table 8: Deteriorating Asian Analyst Forecast and Information Efficiency

The sample is at firm-fiscal quarter level and ranges from March 2019 through November 2021. Standard errors are two-way clustered at the analyst-firm level. Standard errors are in the parentheses and *, **, *** denote levels of significance at 10%, 5% and 1%, respectively.

	<i>Herding</i> (1)	<i>Herding</i> (2)	<i>Relative_Accuracy</i> (3)	<i>Relative_Accuracy</i> (4)	<i>Absolute_Accuracy</i> (5)	<i>Absolute_Accuracy</i> (6)
<i>Boldrel_Asian</i>	-0.030*** (0.01)	-0.068*** (0.01)				
<i>Herding</i>			-0.004*** (0.00)	-0.004*** (0.00)	0.003** (0.00)	0.003* (0.00)
<i>Economic_Tie</i>	-0.430 (9.31)	4.549 (9.77)	-0.251 (0.45)	-0.042 (0.46)	0.388 (1.90)	-0.127 (2.10)
Controls	Y	Y	Y	Y	Y	Y
Industry FE	Y	Y	Y	Y	Y	Y
Firm FE	Y	Y	Y	Y	Y	Y
Year Quarter FE	Y	Y	Y	Y	Y	Y
Adjusted R ²	0.229	0.378	0.137	0.278	0.114	0.260
Observations	25,982	25,741	25,882	25,637	22,933	22,615
	<i>Abnormal_Return</i> [0,5]	<i>Abnormal_Return</i> [0,10]	<i>Abnormal_Return</i> [0,15]	<i>Abnormal_Return</i> [0,30]		
	(1)	(3)	(5)	(7)		
<i>Post</i> × <i>East_Asian</i>	-0.017*** (0.01)	-0.025*** (0.01)	-0.025*** (0.01)	-0.038*** (0.01)		
<i>East_Asian</i>	0.004 (0.01)	0.007 (0.01)	0.005 (0.01)	-0.000 (0.01)		
<i>Analyst_Count</i>	-0.001*** (0.00)	-0.002*** (0.00)	-0.001*** (0.00)	-0.001** (0.00)		
Controls	Y	Y	Y	Y		
Firm FE	Y	Y	Y	Y		
Year Month FE	Y	Y	Y	Y		
Adjusted R ²	0.274	0.268	0.278	0.277		
Observations	24,331	24,333	24,335	24,336		