Clearing the Murky Waters:
How the First Analyst Recommendation Affects Retail Trading Costs
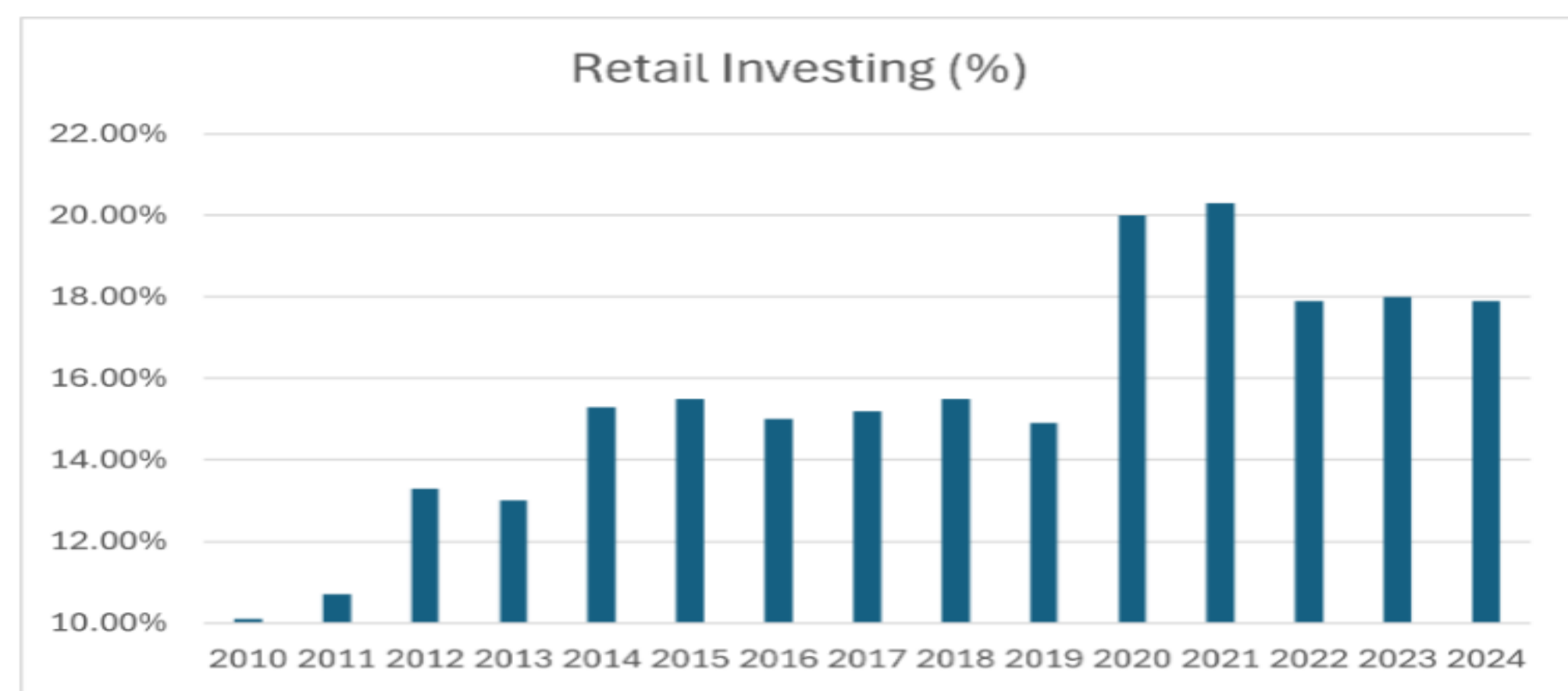
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## RESEARCH QUESTION

What is the impact of the first analyst recommendation on retail investors' trading costs?

MOTIVATION

Retail Investing (%)

- Retail trading has expanded sharply (~20% of U.S. equity volume).
  Source: Bloomberg Intelligence, SIFMA estimates.
- Retail trading concentrates in under-covered, information-noisy stocks (Avila et al., 2024).
- Wholesalers executing retail orders also operate under this murky information environment.

MARKET STRUCTURE
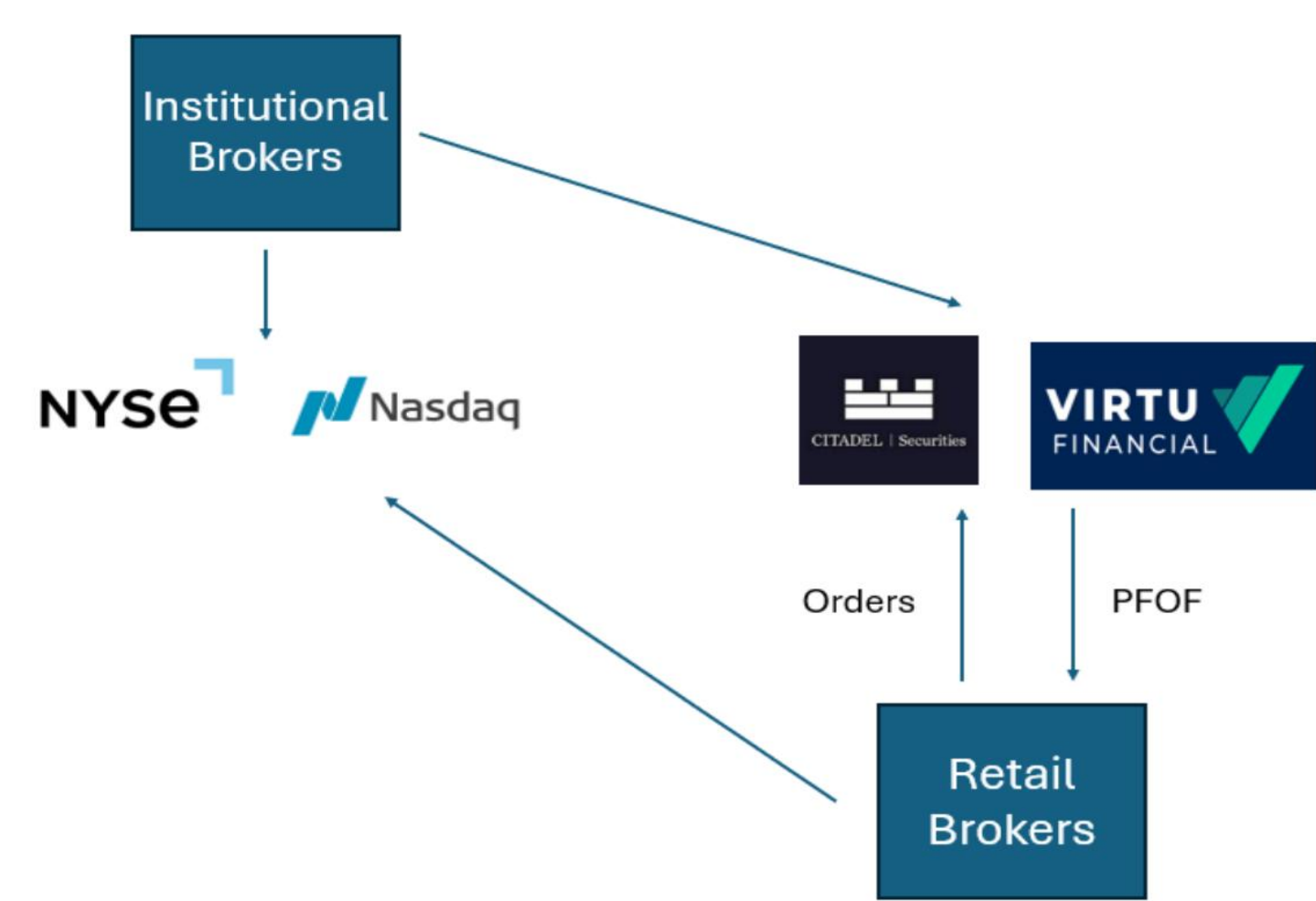
CONTRIBUTION

- Analyst recommendations continue to matter in modern markets, despite the proliferation of alternative information sources.
- The first analyst recommendation informs less-informed wholesalers, leveling the informational playing field.
- Improved information intensifies competition among market makers and delivers better retail execution quality.

SPECIFICATION

- **Context: Exchange vs. Wholesaler Orders:**
  - $Order\ Execution\ Quality_{\{ijt\}} = \alpha_i + \gamma_t + \beta_1 FR_{\{it\}} + \beta_2 WHOL_j + \beta_3\ FR_{\{it\}} WHOL_j + Controls + \varepsilon_{\{it\}}$
- **Main Test: Within the Wholesalers Market:**
  - $Order\ Execution\ Quality_{\{ijt\}} = \alpha_i + \gamma_t + \beta_1 FR_{\{it\}} + \beta_2 Top2_j + \beta_3\ FR_{\{it\}} Top2_j + Controls + \varepsilon_{\{it\}}$

$Order\ Execution\ Quality_{\{ijt\}}$: $Effective\ Spread_{\{ijt\}}$, $Realized\ Spread_{\{ijt\}}$, $Price\ Impact_{\{ijt\}}$, $EFQ_{\{ijt\}}$

$FR_{\{it\}}$: Dummy variable equal to one since the firm i has been covered by an analyst, and 0 otherwise

$WHOL_j$: Dummy variable equal to one if the order is executed by a wholesaler, and 0 if executed on exchanges

$Top2_j$: : Dummy variable equal to one if the order is executed by Citadel or Virtu, and 0 if executed by other wholesalers

α_i : Stock, order type, and order size fixed effects γ_t : Year-month fixed effects

RESULTS

First Analyst Recommendation Reduces Effective Spreads

	Effective Spread	
FR_{it}	-0.4864***	-0.2794***
	(0.0988)	(0.0949)
Top2		1.269***
		(0.0861)
FR_{it} x Top2		-0.6355***
		(0.0749)
Controls & FE	Yes	Yes
Observations	1,331,316	1,331,316
Adjusted R2	0.5902	0.5922

Dominant Wholesalers Lose Market Share
After the First Analyst Recommendation

	Top 2 Market Share (Overall Market)	Top 2 Market Share (Wholesalers Market)
FR_{it}	-0.0197***	-0.0037**
	(0.0028)	(0.0018)
Controls & FE	Yes	Yes
Observations	277,830	277,815
Adjusted R2	0.6775	0.3301

The first analyst recommendation lowers trading costs and reallocates market share across wholesalers and exchanges.

KEY FINDINGS

- **The first analyst recommendation significantly reduces trading costs**, measured by effective spreads, for both exchange and wholesaler orders.
- **Dominant wholesalers (Citadel and Virtu) reduce effective spreads more than other wholesalers following the first analyst recommendation,** with relative reductions of 9.71% versus 3.75%.
- **Leading wholesalers cede market share to their peers following the recommendation,** indicating intensified competition after the first analyst recommendation.
- **Market share losses are concentrated in large orders**, where dominant wholesalers do not offer a greater reduction in effective spread, and rivals catch up in price improvement.

DATA

- 605 Reports
  - Collected from 8 major wholesalers and 14 exchanges
  - Includes market and marketable limit orders only
- I/B/E/S Recommendations Files

The final sample contains 1,324 unique stocks and spans from 2019 to 2022.

MARKET SHARES

Citadel and Virtu Execute Over 70% of Retail Orders

Wholesalers	Shares Executed, bil	Market Shares, %.
Citadel	122.87	40.41
Virtu	92.32	30.36
G1	33.21	10.92
Jane Street	22.75	7.48
Two Sigma	13.49	4.44
UBS	12.53	4.12
Merrill Lynch	5.38	1.77
Morgan Stanley	1.53	0.50

EXAMPLE: ANALYST RECOMMENDATION

Argus Rating:	BUY
Rating Since: 08/14/24	
Current Price:	$187.75
Target Price:	$224.00
Market Cap:	$447.3 thousand
Dividend:	Nil
Yield:	Nil
Beta:	2.44
Sector:	Information Technology
Industry:	Software Infrastructure

Source: Argus Research analyst report on PLTR

- Public analyst recommendations provide a salient valuation signal that reduces uncertainty and informational heterogeneity among wholesalers. This intensifies competition and improves retail execution quality.

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