

FUN AND GAMES – INVESTMENT GAMIFICATION AND IMPLICATIONS FOR CAPITAL MARKETS

Presenters:

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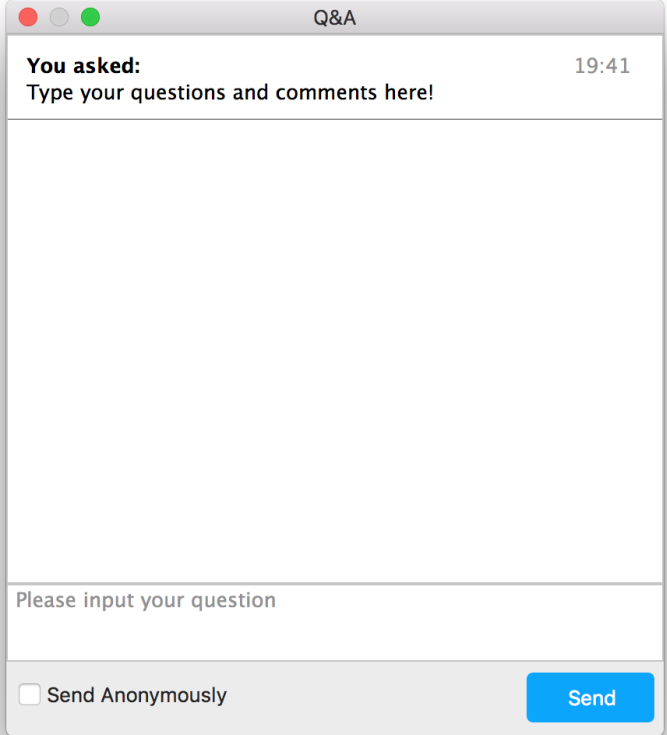


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HOUSEKEEPING

- Today's webinar is scheduled for 60 minutes including Q&A
- All participants are muted throughout the webinar
- We welcome comments via the Chat button and questions via the Q&A button on your screen.
- We will be running a few polling questions – you will be prompted to submit your answers
- This webinar will be recorded and be made available to view soon after the presentation concludes today
- The main presentation will be uploaded onto [CFA Institute Asia-Pacific Research Exchange \(ARX, www.arx.cfa\)](http://www.arx.cfa)

A screenshot of a Q&A window interface. The window title is "Q&A". The top right corner shows the time "19:41". The main area contains the text "You asked:" followed by "Type your questions and comments here!". Below this is a large empty text input area. At the bottom, there is a smaller text input area with the placeholder "Please input your question". To the left of the bottom right is a checkbox labeled "Send Anonymously". To the right of the bottom right is a blue "Send" button.

Q&A

19:41

You asked:
Type your questions and comments here!

Please input your question

Send Anonymously

Send

POLLING 1

Are you currently investing with any online trading platforms?

Polling results	
A. Yes	67%
B. No	33%



POLLING 2

What is the main reason for investing with these platforms?

- A. Easy account setup
- B. User-friendly interface and trading procedures
- C. Lower transaction costs
- D. Access to fractional shares / shares in overseas markets
- E. Relevant information and personalized recommendations provided by the platforms or online community
- F. Free shares or other incentives at signup or on an ongoing basis

Polling results	
	11%
	40%
	31%
	12%
	6%
	0%



POLLING 3

Has your frequency and/or volume of transactions increased because of the attractions provided by these platforms?

	Polling results
A. Significantly more	16%
B. Slightly more	36%
C. Same	44%
D. Slightly less	2%
E. Significantly less	1%



POLLING 4

How likely do you make your investment decisions based on insights and recommendations provided by the platforms and influencers of the online community?

	Polling results
A. Very likely	4%
B. Likely	13%
C. Somewhat likely	33%
D. Unlikely	34%
E. Never	14%

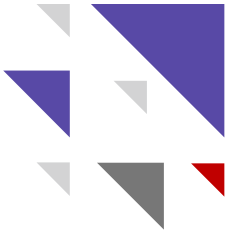


Fun and Games: Investment Gamification and Implications for Capital Markets

Sivananth Ramachandran, CFA, CIPM

January 2023

Outline

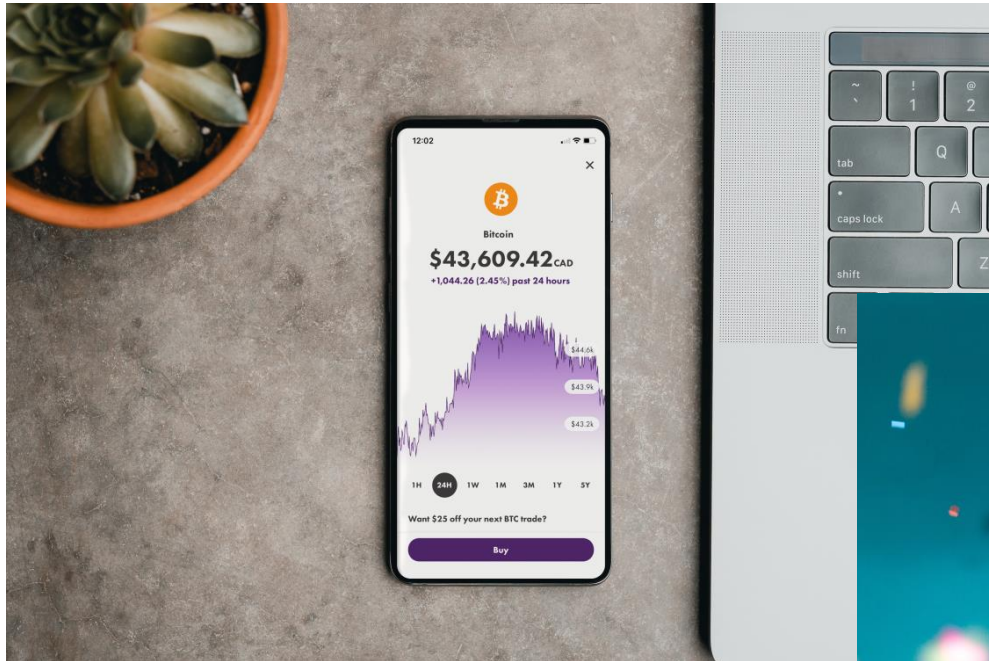


- Introduction
- Gamification and Marketing Practices Used by Financial Services Firms
- Role of Social Media in Stock Market Trading
- Gamification: Results from CFA Institute Investor Trust Study
- Implications of Gamifications: Ethical, Market, and Corporate Governance
- Regulatory Responses
- Recommendations

Gamification



Gamification features are increasingly common within most investment apps



What is Gamification?

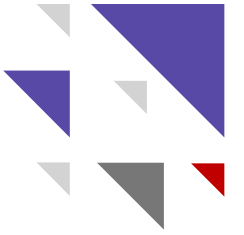


Gamification is the practice of infusing game elements into nongame contexts to encourage engagement with a product or service

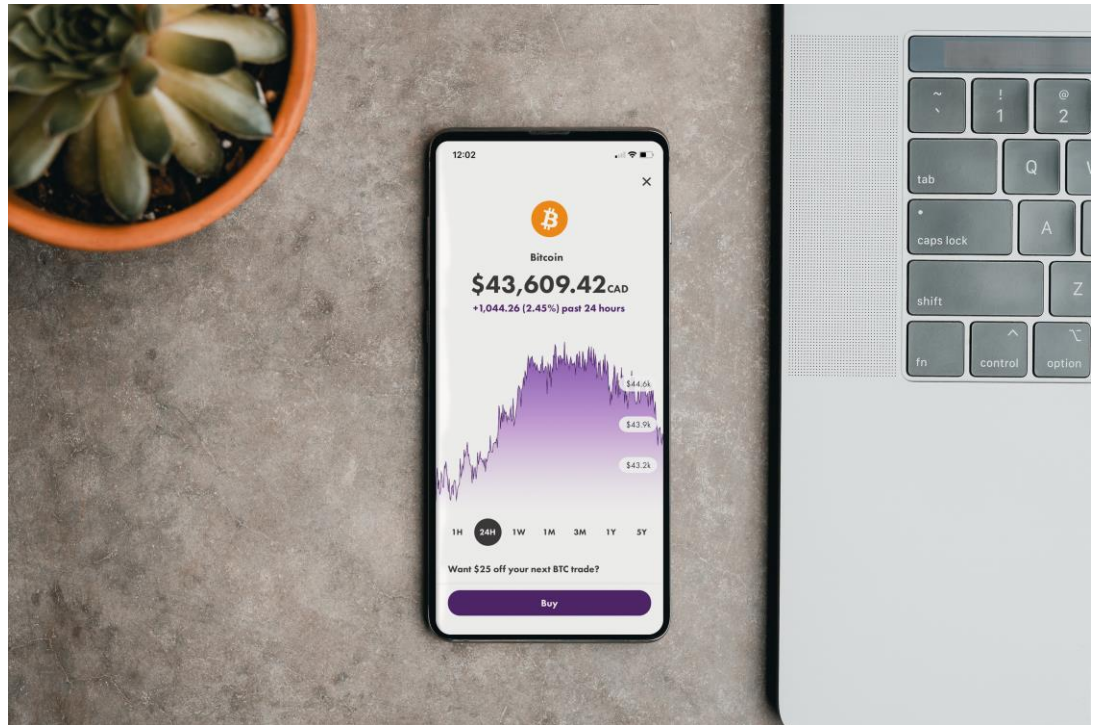
- Gamification and self-determination theory
- The theory suggests people are inherently proactive, but external environment must support three needs (1) competence or mastery, (2) relatedness or social connection, and (3) autonomy
- Self-determination theory may explain the rise and prevalence of self-directed trading

Gamification Practices Used by Investment Firms

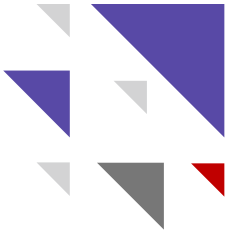
UX Design, Presentation of Information, and Notifications



- UX Design and aesthetic features borrowed from the gambling world
- Prominent display of price charts and stocks with high short term performance
- Notifications may encourage poorly conceived transactions



Leaderboards and Copy Trading



- Leader boards based on short term performance, popularity, and even transactions
- Copy trading encourages imitation
- Over short term, imitation can lead to herding in risky assets and widen gap between investment intention and actions

Role of Social Media in Stock Market Trading



Social Media is a commitment device

- Stock market has always been a social activity
 - Keynes beauty contest
- Social media amplifies the need for social validation in two ways
 - Diffuses information faster, across more investors, and mediated by influencers
 - Social media acts as a commitment device

Social media channels frequently impose requirements to post screenshots

reddit r/wallstreetbets Search Reddit

FEEDS
Home • Popular

RECENT
r/wallstreetbets

TOPICS
Gaming Sports Business, Economics, a... Crypto Television Celebrity More Topics

Create an account to follow your favorite communities and start taking part in conversations.
Join Reddit

21 Comments Share Save ...

Posted by u/dr_horrible_ 14 hours ago

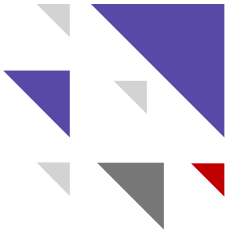
174 Buyers remorse... why didn't I YOLO everything? Gain

Balances
Account value/Today's net change
\$47,750.18
\$2,590.41 (5.74%)
Show balance history

Positions
Table Compact Allocation Sector Type

Symbol	Gain \$	Gain %	Cost Per Share	Last
SPY 391 Put Jan 10 2023 +5	1,247.50	249.50%	1.00	3.54

Zero Commission Trading



- Impact of moving from very small commissions to zero commissions
- Zero price effect - demand for a free good is significantly greater compared with a negligibly priced one
 - Insurance policies with zero deductibles, free shipping
- Impact on execution quality mixed

Gamification Practices Used by Financial Services Firms



Gamification techniques and related practices take advantage of our biases

EXHIBIT 1. SUMMARY OF PRACTICES OF MARKET INTERMEDIARIES AND POSSIBLE BEHAVIOURAL EXPLANATIONS

Number	Practice	Possible Behavioural Explanation	Comments
1	UX design	Anchoring, contrast effect	Order of presentation of information (top mover lists, for example) can influence decisions. Use of colours (bright versus grey) can increase contrast and influence decisions.
2	Copy trading/ leader boards	Imitation/herding, disposition effect	Imitation or herding is one of the first recognized and most powerful behavioural effects in finance. Disposition effect (holding on to losers) evidenced among leaders hoping to avoid reputation loss among followers.
3	Notifications around price moves	Disposition effect	Winners sold off more quickly than losers, based on notification on significant price moves.
4	Zero-commission trading	Zero-price effect	Pricing an item at zero appears to increase its intrinsic value.
5	Default margin account	Status quo bias	Tendency to stay in the default choice
6	Fractional share trading	Counteracts nominal price illusion	Belief that low-priced shares are more likely to appreciate than higher-priced shares
7	Posting trades in social media	Commitment device	Locking oneself to a plan of action—holding on to a losing trade—even if it is a poor choice from a risk management perspective

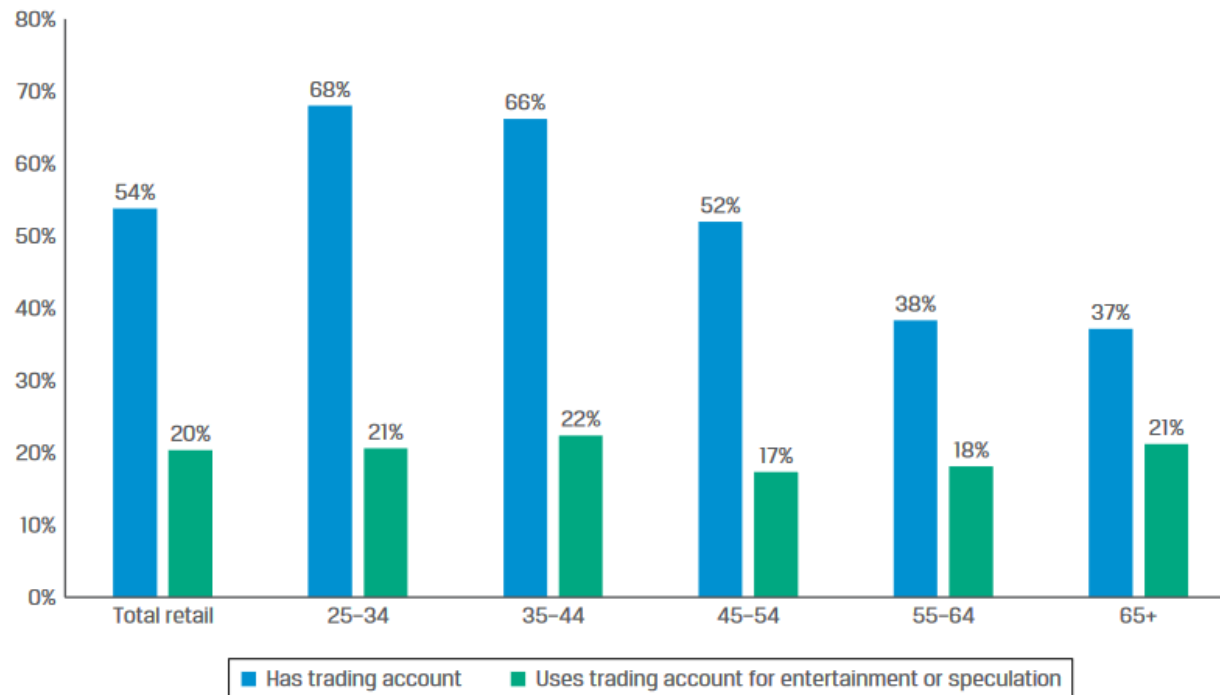
Gamification: Findings From Our Investor Trust Study 2022

Gamification: Results from our Investor Trust Study



Around 20% of the retail investors we surveyed globally (N=~3500) said they use trading account primarily for entertainment or speculation.

EXHIBIT 2. USE OF TRADING ACCOUNTS AND PRIMARY REASON FOR USE



Gamification: Results from our Investor Trust Study (2)



A majority of retail investors said they trust digital nudges, trading apps enhance their understanding of investing, but use of apps also increase their frequency of trading.

EXHIBIT 3. 2022 CFA INSTITUTE INVESTOR TRUST STUDY: USE OF TRADING ACCOUNTS AND ATTITUDES TOWARD THEM						
	Total Retail	25-34	35-44	45-54	55-64	65+
Has trading account	54%	68%	66%	52%	38%	37%
Trust in digital nudges	74%	92%	86%	72%	51%	33%
Retail trading tools/apps enhance understanding of investing	71%	87%	82%	66%	49%	36%
Trust completeness and accuracy of information about complex financial products	61%	80%	73%	55%	33%	25%
Retail trading tools/apps increase frequency of trading	57%	75%	73%	56%	28%	10%

Source: 2022 CFA Institute Investor Trust Study.

Implications of Gamification

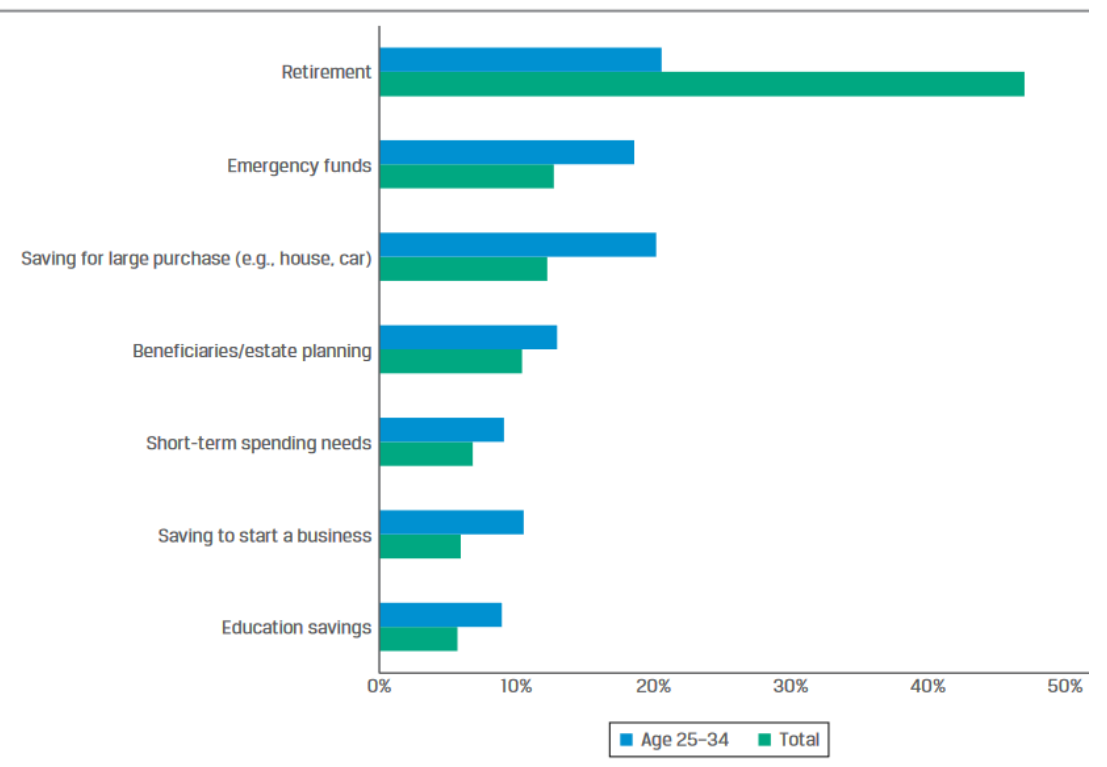
Ethical Implications



- Gamification may circumvent user choice
- Ethical Considerations around nudging and choice architecture
- Conflict of interest considerations around gamification

- Ethical Approach to Gamification
 - “Influence choices in a way that will make choosers better off, as judged by themselves” (Thaler and Sunstein, 2008)

Earning Investors' Trust: Respondents' Top-ranked Investment Goal



Source: 2022 CFA Institute Investor Trust Study.

Market Implications



- Gamification magnifies risk taking
 - High Trust in Digital Apps and the Effect of smartphone on trading
- Market structure issues
- Impact of early experience on investor behaviour
 - Early economic experiences can have a lasting impact on a person's outlook
 - A large cohort of first time investors entered post-pandemic, trading volatile assets

Corporate Governance Implications



- Shareholder activism
 - Rise of shareholder “memocracies” - Individual shareholders sustaining a group narrative on social media
- Future of corporate engagement
- Incentives for fund raising

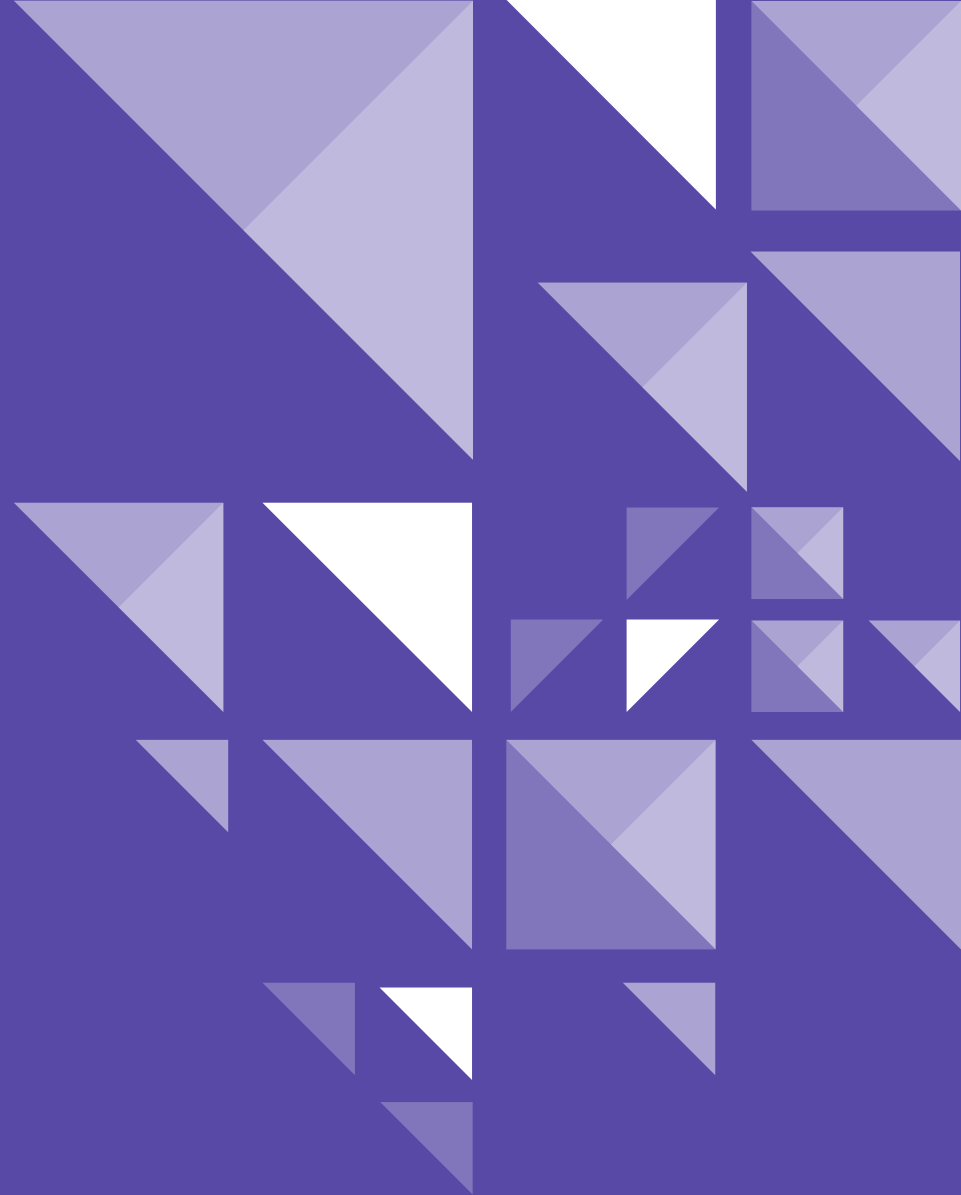
Regulatory Responses



The regulatory response contemplated has been varied, from repurposing existing regulations, to discussing deeper market structure reforms

- Use existing regulations
- Gamification as a form of investment recommendation
- Targeted regulation for gamification practices
- Disclosures
- Licensing Requirements
- Market structure reforms

Recommendations



Recommendations (1)



Our recommendations span principles, disclosures, and conduct.

- App design should include features that allow for review and reflection by users
- Reward and feedback systems, if any, should focus on long-term investor outcomes and not on transactions or short-term outcomes
- Research about stocks and other asset classes must be based on reputable sources

Recommendations (2)



Our recommendations span principles, disclosures, and conduct.

- Market intermediaries are encouraged to provide point-of-transaction disclosures in plain language
- Disclosures must take into account the medium through which they are consumed
- There should be full transparency around remuneration to social influencers

Recommendations (3)



Our recommendations span principles, disclosures, and conduct.

- Investor education materials and other public communications must not mislead or downplay the risks and complexity inherent in investing
- Warning label for brokerage communications, including advertisement
- Licensing requirements for social influencers should distinguish between general and personal advice

For more information, please refer to our report



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POLLING 5

How likely do you make your investment decisions based on insights and recommendations provided by the platforms and influencers of the online community?

	Polling results
A. Very likely	2%
B. Likely	11%
C. Somewhat likely	24%
D. Unlikely	45%
E. Never	18%



CFA INSTITUTE FINANCIAL REGULATORY SYMPOSIUM 2022



Watch Recording



thank you