Retail investor fraud is costly, both to the individual and the system

- Estimating investor losses (or the costs from fraud) is very difficult and likely also depends on the particular scheme.
- In the study that I shared with the IAC, we study retail investor participation in pump and dump schemes, combining data on illegal promotions with retail investor trading data from a large German online bank. This is to my knowledge the first paper of its kind.
- We find that investors lose on average about 30% of their investment. A quarter of the investors lose over 60%.
- We estimate that losses per scheme are at least $1.4 million, which is close to the 90th percentile of estimated damages for criminally prosecuted fraud in the U.S. So these are not small frauds.
- But we should not only be concerned about the direct losses to individuals but also worry about the costs to the system. The presence of such pump-and-dumps undermines market integrity.
  - There can be significant negative externalities from fraud (e.g., if people no longer trust the stock market or no longer invest in equities after a negative experience).
  - Fraud tarnishes the reputation of certain markets, which in turn makes it harder for small firms to raise capital.
  - Our study as well as other academic research suggests that investor behavior is shaped by their past experiences.

Potential insights from research on the OTC markets and retail investor participation

- Insights from the OTC markets study (see Brüggemann et al., RFS 2018):
  - Substantial trading in OTC equity markets, despite minimal information about firms
  - Despite the willingness to trade even with little information, we find significant liquidity differences across OTC stocks reflecting differences in investor protection, disclosure regulation and information regimes in the OTC market, suggesting that at least some investors respond to these differences.
  - Thus, disclosure rules and information regimes play an important role in protecting investors (see also crash risk results in this paper).
• Insights from **Wolf of Wall Street study** (see Leuz et al., Working paper 2017):
  o Evidence of substantial investor participation (over 6% of the investors participate in at least one tout).
  o Investors place large trades (average investment is about 11% of the entire portfolio). So investor losses are not small in terms of their dollar amount.
  o We also find significant repeat participation. Investors who participate more than 4 times in distinct pump-and-dump schemes still lose money (and their average dollar losses are actually bigger because they place larger orders).
  o As we have data on all trades in their portfolio, we also study other investments by the same individuals and find that roughly 35% of the tout investors are day-trading in penny stocks or frequently trade with short horizons. This evidence suggests that not all tout investors fall prey to pump-and-dump schemes, but instead that a sizable fraction of investors willingly trade promoted securities.
  o Personal characteristics (such as age) do not predict who participates very well. There is no clear profile of the participating investor. Past trading behavior does a much better job differentiating the likelihood of participation than demographics, consistent with the idea that there are different motives or investor types.
  o Interestingly, while we see that retirees and older investors have a higher propensity to buy in pump-and-dump schemes, we find only a slightly lower percentage of day-trading and short-horizon investing among retirees that purchase touts (33% vs. 35% in the overall sample).
• **Key message:** The evidence suggests a nuanced regulatory approach, recognizing different investor types but also how these types interact.
• Before I move on to suggestions for this regulatory approach, let me highlight that there are reasons to believe that these insights from retail investor participation in pump-and-dump are also relevant for other asset markets (e.g., crypto currencies & ICOs).
Examples supporting this conjecture:
  o Explicit “pump and dump groups” for cryptocurrencies on Telegram.¹
  o Some even advertise the Ponzi-scheme nature.²
• Thus, the evidence suggests augmenting the popular image of vulnerable investors being duped by aggressive promoters and recognizing that some investors participate

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¹ Mac, BuzzFeed (Jan 25, 2018) and Levine, Bloomberg View (Jan 29, 2018) report the following example: “Crypto Callz currently has about 5,729 members, and it’s one of dozens of pump-and-dump groups that have set up shop on Telegram, one of the world’s most popular messaging apps. Their goal: to conjure speculative buying frenzies around new digital currencies and cash in on them. These groups are easy to find, mostly free to access, and largely unpoliced by Telegram, which has become the go-to gathering place for bitcoin and “altcoin” traders to exchange news, tips, and, increasingly, to orchestrate cryptocurrency scams. […] A Crypto Callz administrator who identified himself as Maxwell Anderson told BuzzFeed News that “being a part of well-managed professional crypto pump groups like Crypto Callz is just getting early info on a coin.”
² Levine, Bloomberg View (Feb 8, 2018) reports the following crypto anecdote: “A new virtual currency, Proof of Weak Hands Coin, whose creators referred to it as a Ponzi scheme on Twitter and use a pyramid as a website logo raised $800,000.
because they gamble or hope to offload their stocks on a “greater fool.”

Suggestions for a regulatory approach based on these research findings

- **Two-pronged regulatory approach** that recognizes different types and motives.
  - Warning signs and education are unlikely to be effective for those who gamble and participate willingly. In fact, they might have the opposite effect, i.e., provide a signal that there is a “bandwagon to jump on” (see cryptocurrency examples). Put differently, red flags to some are green flags to others. Thus, transparency is not enough.
  - This is not to say that we do not need warnings or investor education. We need these strategies for those investors who are being fooled by the schemes (which is probably still the majority). So the traditional approach to addressing fraud (e.g., with education) has its place. If fewer investors are being fooled, the profitability of fraudulent schemes is lower, which in turn reduces the incentive to create them in the first place.
  - But we also need strategies to address participation by investors who simply gamble in these markets or understand and seek these schemes.

- **One** might argue that such risk-seeking investors do not need to be protected and hence should not be the concern. However, speculators make creating schemes more attractive to fraudsters and hence they support the supply of pump-and-dump schemes.
  - Put differently, speculators confer negative externalities on those that are being fooled and that the SEC seeks to protect. (Conversely, investors who are being fooled also fuel the supply of touts.)
  - It is because of this interdependency that we need a two-pronged approach.

- **The second prong: Reducing the supply of pump-and-dump schemes**
  - Given that disclosure and education efforts are unlikely to work for those that seek touts, it is important to also reduce the supply of pump-and-dump schemes. Here are some ideas, but let me emphasize that there is no silver bullet:
    1. **Strict and real-time enforcement** of existing rules plays a critical role, making it more likely that perpetrators are being caught when the scheme is fraudulent. The SEC has large toolkit, but I would like to highlight the idea of using data analytics to identify schemes and suspend trading quickly. Leverage data on past promotions, stock price behavior, stock characteristics, tips and complaints, etc. In this regard, transfer agents and broker dealers can provide additional information (about record holders, ownership patterns, and stock splits that could be utilized in detection).
    2. There are blurred lines between legal and illegal promotions. The SEC should consider clarifying and expand what promoters are required to disclose for paid
promotions (names, address, role of promoter, intent to sell shares with promotion). The point is not just to enhance transparency but also to make enforcement easier.

- In this regard, the Committee should also discuss whether companies should be required to disclose paid promotions.
- In addition, companies be encouraged to respond to known promotions (e.g., with a press release). See new policy by OTC Markets Group.

3. Consider ways to make it harder to find and use penny stocks for promotion. Most pump-and-dump schemes involve penny stocks or shells.
   - Suspending or expelling shells and dormant companies could be an important strategy (see also SEC’s operation “Shell Expel”).
   - Consider minimum registration and some basic disclosure requirements for all traded firms. Often basic information, like the number of shares outstanding or a firm’s industry, is not known in a timely fashion. One option to consider is whether Form 211 filed under Rule 15c2-11 and FINRA Rule 6432 could be used to create a simple public register (akin to BrokerCheck).

4. Taking actions against brokers who facilitate trading in fraudulent schemes. Given that past trading behavior predicts tout participation, brokers have crucial information and hence could also play a role in the communication with investors. This might be a way to reach investors, including repeat participants. We are currently in discussions about a follow-up study with the German brokerage firm to see “what works” in terms of discouraging participation.

5. Efforts by OTC Markets Group and CrowdCheck show trading platforms and markets can innovate and play a positive role as well. It is worth looking beyond regulatory approaches.
   - To summarize, the above regulatory approach would aim to:
     - Reduce investor demand, recognizing that there are different investor types and trading motives.
     - Reduce the supply of fraudulent schemes by reducing profits and raising costs for fraudsters.

**Additional and more general comments for the IAC to consider**

- Regulatory approaches matter potentially more in the OTC market because it is mostly populated by retail investors and other monitors and market mechanisms (e.g., institutional investors, short sellers) are missing or weaker.
- In crafting regulation that protects retail investors, we need to more explicitly recognize investors’ behavioral biases (including under-diversification, lottery and gambling preferences). These biases in investor behavior are reasonably well established in a substantial body of research (see, e.g., work by Barber and Odean).
A publication that illustrates my point is Bhattacharya et al. (RFS 2012). They study the effects of randomized, unbiased advice to investors and find that many investors do not take and follow the free advice given. It is often those who need the financial advice most that are least likely to take it. The study concludes that the mere availability of unbiased financial advice is not sufficient. It seems to me that this is an important message for investor education efforts.

- Rather than reforming Section 17(b), the IAC could also consider whether we should even allow paid promotion in the OTC markets.
- If the goal is to increase transparency in the OTC market, then it is worth considering reform of Rule 15c2-11. The rule does not seem to increase transparency and the piggyback exemption seems to be against the spirit of Rule 15c2-11 (see also Brüggemann et al., RFS 2018).
- It is worth considering more scaled disclosure regulation for smaller firms. One-size-fits-all requirements that make it costly to be a SEC registrant for smaller firms are one reason why companies do not register at all or ultimately deregister, hence contributing to the population of unregistered securities (see also Leuz, Triantis and Wang, JAE 2008).