Exchanges at Goldman Sachs

How Retail Investors Are Shaping Markets

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Allison Nathan: Is the influence of retail investors on stocks shrinking? The work from home movement inspired a boom in retail trading and day traders helped push equity markets to new heights. But today, some signs in the market suggest retail investors are losing steam.

John Marshall: There's been a very dramatic reversal in the buying of retail turning into the selling of retail in the last five months. This shows you that a lot of the retail froth that was potentially in the market has come out.

Allison Nathan: I'm Allison Nathan and this is *Exchanges at Goldman Sachs*.

[MUSIC INTRO]

Allison Nathan: To help us understand how the role of the retail investor in the markets has evolved, I'm joined by three of my colleagues across the firm who have a unique view into how individual investors are trading. John Marshall, head of derivatives research in Goldman Sachs' research division. Greg Tuorto, a portfolio manager of small to midcap stocks in our Asset Management Division. And David Jeria, who manages the Americas equity execution team in our Global Markets Division. John, Greg, and David, welcome to the program.

Voice: Thanks for having us.

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Allison Nathan: So, let me kick off the conversation by saying that it's well understood at this point that the pandemic spurred a new generation of retail investors. We've all heard the stories of day traders flush with their stimulus checks driving up certain tech and other stocks. But just to level set, how much of an influence did these investors really have on markets? Maybe, John, you can take the first stab at that.

John Marshall: Yeah, thank you, Allison. In our opinion, the impact on markets was huge. The most basic level trading in stocks themselves went from being about 10 to 15 percent retail investors to 20 to 30 percent retail investors by volume. So, that is a very big change. But we think that understates the influence that retail investors have had. And that's because of the single stock options market.

So, buying exposure in stocks is straightforward. When you buy exposure in an option, you might buy a call option, which gives you the right to buy a stock at/or before a future date. And you can buy it with a significant amount of leverage. You may pay only $2 to buy a call option on a stock that is $100. So retail investors could afford to buy a huge amount of exposure on individual stocks in a very levered manner through the options market.

The single stock options market grew four times as large in 2021 as it was in 2019. And the single stock options market became even larger than the shares market. So, you have a huge amount of retail trading in single stock options. We estimate about 50 percent of the single stock options market is traded by retail on a regular basis. So, you have retail trading 20 to 30 percent of the shares market. And 50 percent of the options market. This blended makes about 40 percent of all risk in single stocks being traded by retail. And in the options market, this is being traded with two-week options. So, very short-term exposures.

Now, of course, this is painting a picture where retail is easily bigger than any other category of investor that's trading in the market. And it's not even counting how much trading that is done by market makers just to facilitate the retail trading. So, we think that it had a really large effect on the single stock market, as well as the broad S&P itself.

Allison Nathan: So, it's obviously been a volatile time in markets. And historically, or I should say at least over the last couple of years, retail investors have really been a source of support for the market, stepping in to buy the dips. So, is that still the case today?

John Marshall: Yeah, it's a great question. We've seen a big change in the buy the dip mentality looking through the lens of our data. We aggregate a lot of David's data in order to understand what's happening in NASDAQ stocks, for instance.

By our estimate, from all the exposure accumulated from 2019 to 2021, 50 percent of that exposure has been sold in the last five months. So, there's been a very dramatic reversal in the buying of retail turning into the selling of retail in the last five months.

Now, when you think about how much selling is necessary for us to find a bottom in markets, it's a really tough question because unemployment is still very low. Cash in checking accounts is still very high. So, we know that the retail investor does have a lot of cash. Is it necessarily to sell all of what was accumulated in the last two or three years? Probably not.

If you layer on top of this that options activity has come almost completely back to normal in the last five months, this shows you that a lot of the retail froth that was potentially in the market has come out. And the buy the dip mentality is not as strong in the shares market or in the options market.

The one area that I would say is an exception here, and something we're watching very closely, is in the ETF market. ETF inflows have continued at a very consistent rate all through 2020, 2021, and even into 2022. So, investors, the buy and hold investors, as separate from retail day traders, the buy and hold investors are continuing to allocate to equities through buying of ETFs. They're just not buying the speculative tech tocks or biotech stocks that they were buying last year.

Allison Nathan: So Greg, let me bring you into the conversation. Are you seeing a lot of the same things that John is finding in the data from your seat? And what do you think is really driving the shift in behaviors across the retail in the single stock space?

Greg Tuorto: Yeah, thanks Allison. I echo a lot of John's sentiments about this. You know, in the small cap space, one of the things we have a lot of is low dollar price stocks, something that I didn't think that I'd ever talk about again. Having managed small cap names for 25 plus years, low dollar price stocks used to be a strategy of many famous small cap investors just because these companies would have a significant kind of move or beta when things would go up and down.

And we saw that below the headline names, the meme stock guys would always talk about, there were a lot of companies kind of in that low, single digit, low double digit stock price range that were heavily affected. I think that people were really excited about those things.

Small caps, also don't have a lot of liquidity. And as I'm sure David will talk about, liquidity is not great, even at the top of the market. So, if you keep on going down below the companies-- and John mentioned ETFs. And a lot of the companies that we talk about are really not trafficked highly in the ETF market because they're just relatively illiquid. And the ETFs kind of ignore them with some strategies if they can. Not the index-based ones, but some of the more focused versions because they're just not liquid enough to make sure that you could put the position on or take the position off when you have additions or contractions in your NAV.

So, small caps have been significantly affected, both in the headline type names that attract a lot of attention, and even the ones that you wouldn't even think of. Biotech was an area that I was very surprised to have a lot of this in. Because I think biotech is a place for experts. It's, quote/unquote, a small cap PM friend of mine calls it "the deep end of the pool." You know? You really don't want to jump in there if you can't swim. And I think we saw a lot of that. People looking to buy a $6 biotech with a dream type stock, even post COVID to see if they'd get a triple or quadruple. But, you know, a lot of times they lost their money. And the investor P&L aspect, the profit and loss statement being more heavily on the loss side. As John talked about this waning has caused people to pull back from some of that risk-taking activity we've seen, especially over the last-- I'd say kind of in the beginning of March through May when some of these highly volatile moves have become quite painful or down cap.

Allison Nathan: And John, you had mentioned that we are still seeing some buying more passively in the ETF space from this retail investor. Greg, is there anything in your universe that retail investors are still buying, are still interested in?

Greg Tuorto: I think the ESG market had been something everybody was interested in. Everybody wanted to be an ESG investor. You heard it from our private wealth management people. You heard it from so many folks that everybody wanted an ESG portfolio.

And then energy started to work. And you started to see that veneer of "do I have to be ESG? Can I be non-ESG in some other parts of my portfolio? Are there high-quality energy companies that are doing carbon offsets?"

So, energy, in our world, has seen a significant move upward, both from professional investors like ourselves who have been underweight it for years, to retail investors who see some pretty significant opportunities in an area that's probably one of the cheaper, kind of at the current commodity prices, spaces to play. It's cheaper down cap where we are than it is up cap, I think, just by looking at it. You've seen so many of these companies in our world on the energy side that were almost high-profile accidents going bankrupt the last time we had a big dip in the commodity.

And they cleaned up their balance sheets. They're not all perfect. I don't mean it in that way. But they've cleaned up their balance sheets for the most part. So, you're getting a little bit more leverage out of commodity pricing now. And so, the companies actually look a bit more attractive with valuation, free cash flow, those sorts of things. And you're seeing, surprisingly enough, that that part of the market in small caps is the most, beyond just value generally, value is an area that people are more kind of attuned to. But one click deeper.

And energy is a big part of the value piece of it. But energy, in and of itself, is an area that people are very excited about at the retail level.

Allison Nathan: Let's take a step back and talk about the implications of this retail trading for how the market trades. David, your team has done some interesting work showing that activity on trading venues has actually changed due to the retail trader. So, what does that look like today?

David Jeria: Thanks Allison, yeah. So, as Greg and John were saying, a lot of my work focuses a bit more on the liquidity aspects of retail trading. And so, just quickly as a matter of background, the way that retail trades is mostly through bilateral, over the counter mechanisms which we typically think of as being off exchange mechanisms. At a very high level, the retail end user will trade through a retail broker dealer. And the retail broker dealer will have multiple trading arrangements with hosts of market makers. And they will compete for this order flow on the basis of payment for order flow and flow price improvement and other metrics.

So, the second point, also a little bit as a matter of background, right before COVID and the first part of 2019, there was another important event in retail, which was that many retail broker dealers started moving towards a zero-commission model for trading equities. So, Interactive Brokers on September 2019, Charles Schwab in October. And then all of the other larger broker dealers kind of followed suit.

So, all of these events had important consequences on the nature of liquidity in U.S. equities. To give you a sense, right, as John was saying, pre COVID, pre zero comms we all typically thought of retail as being roughly 10 percent

US equity volumes. And we typically have 35 percent of US equity volumes have been off exchange. With zero comms, we saw the retail participation go up a couple of points. Go up to 13 percent. And then given COVID, really, as we were all talking about, during COVID is really when things started to drastically change.

In the summer of 2020, for us from a liquidity standpoint is when we had some of the more important numbers. At that point, retail participation got roughly to 20 percent. And off exchange volumes hit 45 percent. And then December of that year, and in January of 2021, we actually got to the point where, on a number of days, over 50 percent of US equity volume actually happened off exchange.

We have retail, you know, in the 20 to 25 percent range. Other market participants went as high as citing 30 percent retail participation on the tape at that point.

Allison Nathan: And so, if you have this huge volume of trading represented by the retail traders moving off exchange, what are the liquidity implications of that?

David Jeria: Yeah. High level. Because these trades happen on a bilateral basis, they are non-participable from other market participants. And so, this concept of non-participable of volumes is something that we spent a lot of 2020 and 2021 talking to our clients about.

A very common way that institutions, hedge funds, professional investors executed is to execute in line with market volumes. So, again, someone, a PM might be looking to buy a stock. And the way that they might want to get into that position is through an instruction that might say something like, "Buy X shares of this stock at a participation rate that is 10 percent of that stock's volume."

Now, if a large part of that stock's volume is non-participable, it becomes significantly harder for us to source liquidity. And the only way for us to source liquidity and for us to follow that instruction is through the creation of more market impact.

And so, what happened during this time period when there was a lot of volume that was shifting towards off exchange and was non participable, is that we had that, in addition to the evaluated volatility. It just was a very, very challenging environment for trading. Trading costs skyrocketed across the broad spectrum of all stocks that our clients were trading.

Allison Nathan: So, Greg, maybe you can give us a little bit of insight into what it was like trading at that point and how it is today.

Greg Tuorto: One of the things that I think we've done in this market is, you know, when you see something that's dislocated, you want to know why. Where I've seen it most dislocated now, kind of five months into this, six months into this market downturn, so to speak, has been in the after market and the pre-market trading.

It's been very difficult to ascertain-- a company reports earnings, and they go up or down on some number of volume that's either above or below what the average volume was the last time they reported earnings or did a merger or something like that. And that direction after the market has become less predictive of how it will trade in the market in the next day by a factor of almost a half. I mean, it's almost 50 percent. It used to be kind of almost 100 percent directionally. Now it's like 50 percent. We've seen stocks go up 20 percent in the after market. They go down the next day. And vice versa.

And I think you're seeing a little bit more retail participation in those areas to an extent, just because they're trying to capture some of that, you know, what they think of as illiquidity premium in the market to kind of be in there as, like, we were waiting for something. We think it's good. Let's get in there because we know the liquidity is not there, so we can influence the movements.

I think the other piece of that we've seen less of is just there is no-- there's zero capital markets activity. Zero. There are no IPOs. There are no secondaries. So, there used to be a very heavy retail follow on trade. And this is not the retail investors I'd say that we're talking about today which are more kind of people utilizing apps. This is kind of maybe more the mass affluent type trading that would want to go into the IPO market. But that created a tailwind for some of the retail investors we're talking about, last year and the year before when there were a lot of IPOs.

We're not seeing that. So, I think that that opportunity, I'm not sure where the crowded out traders have gone to. We haven't really seen them emerge. Just because those types of locked up type activities just aren't happening. So, you're not seeing that sort of stripe of trader out there in the market doing something.

Allison Nathan: So, if we think about the picture you're painting of retail traders at this point, they're stepping back. They're not coming in and buying the dips. There is less activity in the market that they can then be sort of momentum buyers and participate around. John, are you seeing differences in behavior between the retail investor and what you're seeing from institutional and hedge fund investors at this point?

John Marshall: What we're seeing is less responsiveness of retail investors to stock price movements. We're seeing consistent selling each day, regardless of whether the stock market is going up or going down. It's as if there has been a change in philosophy and a change in behavior where, instead of being very responsive to momentum moves in particular stocks, that this cohort has really decided, ok, this is not a game that has broadly been working for us. And so, we're going to switch to a more consistent selling out, or the opposite of dollar cost averaging. Really selling out of these positions.

And many of the retail investors that bought tech stocks over the last two years are still actually at a profit. So, in some cases, this is disciplined taking of profits after negative momentum has already started.

In contrast, I think the institutional investor community is always focused on relative value. The hedge funds are very focused on buying cheap stocks relative to expensive stocks and adding the value between the long and short trading. Asset managers are often focused on buying stocks that are in their benchmark that will allow them to outperform the benchmark. So, it's a much more relative value trading mentality among the hedge funds and asset managers, whereas the retail investors are more about allocating to this type of strategy versus deallocating to this type of strategy of buying speculative stocks.

Allison Nathan: And it's interesting you say that because oftentimes you think about the retail investor base, they're often thought of as an economic indicator. That when there's euphoria in the market and there's growth optimism, retail investors are buying. And vice versa. So, are you saying that that's become less the case at this point?

John Marshall: Well, I think you have many variables in using retail as an economic indicator. And I think treating retail as two distinct groups, at least two distinct groups of people - one, retail day traders, which is most of what we're talking about on this call, but then you have the buy and hold investors who are investing. They typically put the money in, and they hold onto that asset or keep it allocated to stocks for decades.

And this retail day trader, they are speculating less in individual stocks for sure over the last five to six months. That long-term buy and hold investor, and that's a bigger chunk of overall money to be invested, I think the decisions that you make are based on whether they have the cash flow. Whether they still have a job. And whether they're being paid more or less.

And right now, unemployment is low, and people are being paid higher wages. So, there's more money to invest as a buy and hold investor. And my view is that that particular group of investor, which is probably the bigger factor for a broad equity allocation decision, that group of buy and hold investors will be delayed sellers on a market decline. They will really not decide to sell because of something going on in the market. They will decide to sell because they need the money because they've lost their job.

And so, as an indicator, I think it could maybe even be an indicator of the capitulation in sentiment, rather than the start of something bigger. And that's why I'm not as nervous as many people are about this initial bout of retail day trader selling that we've been seeing.

Allison Nathan: You mentioned that some of the retail day traders are still in the money. But Greg, you also mentioned that some are licking their wounds. That there are quite a number of people who have really gotten beat up in this period. So, from your side, Greg, are you seeing that category of person really trying to increase leverage, take positions to make up for losses? Or are you seeing them pull back?

Greg Tuorto: I think that one of the things that I think a lot of the retail investors, especially as John clearly mentioned, there are two major cohorts here. They have very short memories, I think, because I don't think that for the most part they've allowed themselves to get over their skis in terms of position sizes, in terms of margin. Believe me, people are paying very close attention to what goes on with Robin Hood and all of the other trading venues that retail investors frequent.

You haven't heard of any major accidents. And I think that there are enough people, either in the media or in the regulatory environment who are looking for these things to happen that we would hear about them. I don't think that the world is that opaque that we wouldn't hear about those things.

So, I don't think that they're as damaged. But I do think it does change your view a bit. John mentioned the way that a long short hedge fund would go into a trade. If you go onto Reddit, you're seeing a lot of people kind of think about more of hedging strategies. Long one stock. Short another of the same stripe. But you're not trying to be market neutral like a lot of hedge funds are. You're trying to actually make a profit. So, you may have a little bit more exposure on one side versus the other. But you're utilizing one of those trades as a funding source. So, you're seeing a little bit more of that, or at least the discussion of a little bit more of that in the venues that these people talk about those things.

And I also think that there is a little bit-- I mentioned earlier that there was a lot of activity in places like biotech, which is, in many cases, it's a coin flip in a lot of these areas. You know, even if you know everything, you could still get the stock wrong. And you've seen that happen in many cases.

You've seen a little bit less in those areas and more, maybe, in some companies where you're not trying to swing for the fences. You're trying to hit a single. And I think that that piece of the risk environment, which is something that takes a lot of investors-- you know, I manage a team of a large number of people, it takes people a long time to understand single stock risk. And I think whether you're trying to think about, as John mentioned, benchmark risk or just single stock risk, I think it takes a lot of time. You make mistakes. That's how you get better at these sorts of things.

And I think that over time, the people who have a little bit more shorter time horizon, I think that they'll realize that. But longer-term folks, like John mentioned, I think that they do sit on profits. I think they harvest gains and kind of reallocate it into other things. And the automatic piece of it, that we didn't touch on it a lot, you know, the ETF piece of it, which does influence this, really hasn't changed at all.

Allison Nathan: So, you haven't seen those consistent flows into equities changing?

Greg Tuorto: It's amazing. I was thinking about the robotic nature of putting the same amount of money in every month. And that money going into those places. And so many people who've kind of been instructed that's the way to do things. The 401(k) aspect of what's gone on.

That money comes in. They call it systematic flows. It comes out of your paycheck, and it gets invested for the future. So, that's still out there. So, depending on how wobbly this economy gets, I don't think you're going to see anything happen on that automatic flow state of what people put into the markets.

Allison Nathan: And John, you also said that you're not that concerned about the retail investor and its behavior and how it could impact the market. So, what are you watching? And what would make you more or less concerned?

John Marshall: I'm not that concerned about the retail day trader aspect. But I am really watching these ETF flows. As Greg alluded to, if this automatic, systemic investment of a portion of a paycheck, if that has a dramatic change, or at least shows a change in trend, that would be something that I would very closely watch. But, you know, short term movements in retail day traders. I'm less concerned about.

Allison Nathan: And Greg, it sounds like you agree?

Greg Tuorto: Yeah. It's something you have to pay attention to. I think every major, they used to call them money center banks when I was a kid in this business, so, I guess they're just banks now, is trying to productize what they think of as their health of the consumer-type aspects. And these really large banks know so much about what we're doing. We've put so much through in terms of not just automatic investments, but automatic payments and things like that.

And so, the quote/unquote "health" of the consumer is still quite healthy. And so, you know, I think that as we digest all of these reports and kind of create that mosaic about what John's talking about, it's like, if inflation goes up higher and it's impossible to buy a loaf of bread or put gas in your car, and these things become a huge drain and the slope of the increase in wages doesn't keep up, people may have to pull back on those sorts of things. You know, there's just not as many dollars to go around. We're not there yet. And hopefully, we will never get there.

Allison Nathan: So David, what do you expect the retail participation to be going forward?

David Jeria: So, I think we're finding a steady state in terms of retail participation in the US equity markets. I think it's going to look like 15 percent for the near future. It's higher than the baseline that we had through COVID. And we can explain that, again, because of zero commissions. Because of the gameification aspect that's here to stay.

Now, it's probably not going to be a market moving type of participant on the go forward. But I think there's still going to be inevitably this kind of latent risk of single stock herding events that might drive retail, a lot of their dollars that might now be lower than during peak COVID, but they might still concentrate their focus in a handful of stocks.

The other property that we were [UNINTEL] about retail during COVID was that roughly 80 percent of the notional traded on a weekly basis was focused on 100 names. So, again, they're not broad portfolio managers. They tend to focus on single stocks. Those 100 names change week over week. But if that's one of the names that you have in your portfolios, it becomes an important participant to be mindful of.

Allison Nathan: What do you make of the recent SEC proposal?

David Jeria: I thought it was interesting and super timely for sure. To summarize it super quickly. A few days ago, Chairman Gensler spoke at an industry conference, and he previewed a number of different proposals that the SEC wants to bring forward in the equity market space.

He went through a number of topics. He spoke about best execution and tic sizes and changes to the national bid and offers. But most important to our topic today, he mentioned he was interested in exploring this idea of enhancing order by order competition by retail. Which ties back a little bit to what we had mentioned earlier. A large portion of the retail market had become bilateral and just non-participable to other market participants.

So, no specific rule proposals were named. And again, I think on paper the idea of increased competition seems like a good idea. But like most things, you know, the devil will be in the details. And as proposals get made, we will have to evaluate the details of those proposals.

Chairman Gensler did make a reference to auctions as one potential mechanism through which we can incentivize participants to compete and provide retail with the most price improvement, which would be similar to how it's done in the options market today. So, potentially, you know, reusing a mechanism that many participants are familiar with.

But I think for now we're in a bit of a holding pattern. I expect there's going to be a lot of opinions, a lot of debate about what is the best way of doing this in the equities market. And it will probably be some time before we see anything get implemented. But I generally thought it was positive to see that these are topics that are top of mind for the SEC as well.

Allison Nathan: John, Greg, and David, thanks so much for joining us and sharing your perspectives on the retail investor today.

John Marshall: Thank you very much for having us.

Greg Tuorto: Thank you for having us.

David Jeria: Thank you, Allison.

Allison Nathan: Thanks so much for joining us this Thursday, June 2nd, 2022, for another episode of *Exchanges at Goldman Sachs*.

But before we go, I'd like to share news about an exciting new project we've been busy with. Every week on

Exchanges I sit down with top Goldman Sachs leaders and thinkers to discuss how the most pressing macro economic issues are moving economies and markets. But have you ever wondered how other top investors are navigating today's market headwinds? In our new special series, *Exchanges at Goldman Sachs Great Investors*, Allison Mass, our chairman of the investment banking division, and Katie Koch, our chief investment officer of public equity in our asset management division will be speaking with some of the world's most respected investors about their investment strategies and views on markets and the global economies. Catch this limited run series on the Exchanges feed now.

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