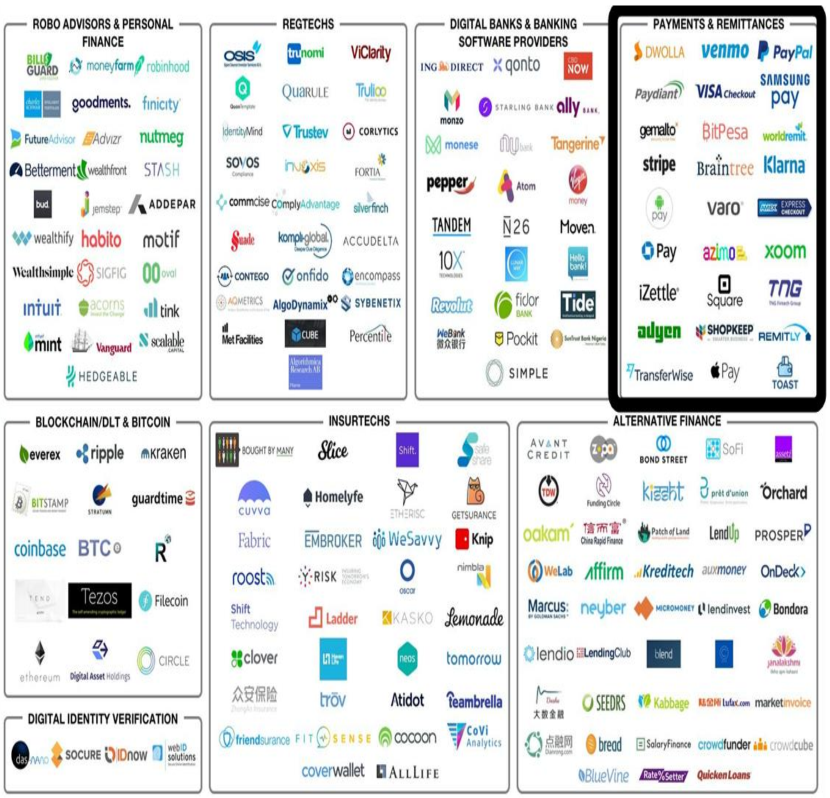
Manole Capital Management
Robinhood Note
July 2021

Are Online Brokers FINTECH Companies?

Manole Capital exclusively focuses on the emerging FINTECH space. We have a somewhat unique version and definition of FINTECH. For us, we define FINTECH as "***anything utilizing technology to improve an established process."***

Historically, trading equities was broker driven and then it became telephone based. In the 1990's, with wider use of technology and the internet, trading began to migrate online. In the 2000's and 2010's, this trend continued and morphed towards mobile-based trading. Going from the pits and hand signals to paper-based and telephone-based trading and then to mobile-based trading is clearly "utilizing technology to improve an established process." As this slide of the FINTECH ecosystem show, ***Robo Advisors & Personal Finance*** is on the upper, left-hand side.



Those looking to create FINTECH exposure often choose the ***Alternative Finance*** box (bottom right in this slide). These investors decide to own "new" banks that lend money through automated and proprietary credit checks or technology companies providing online access to capital, with modest verification or collateral. Owning these new versions of a traditional bank, especially with credit sensitivity and balance sheet risk, is not for us.

Why do we believe our version of FINTECH is somewhat different? We highlighted the ***Payments*** section (top right), as we believe this is the quintessential FINTECH business. Also, you won't find any of our ***Data and Information*** companies, nor will you find the ***Derivative Exchanges.*** On the exchange front, we like the exchange models, like CME, Intercontinental Exchange, Nasdaq and CBOE. These are companies that look to leverage their scalable platform and connect buyers and sellers of an underlying asset (ex: interest rates, equities, f/x, commodities, etc). By providing liquidity and the tightest bid/ask spreads, these businesses can generate impressive free cash flow.

Many investors do not consider the exchanges or the online brokers as FINTECH stocks. Instead, names like Schwab or CME are deemed "traditional financials". We have invested in the online brokerage business for over twenty years, having owned companies like Schwab, Waterhouse, Ameritrade and Tradestation. We prefer transaction-based businesses that earn predictable, sustainable and recurring revenue, as opposed to spread-based lending models.

Robinhood (HOOD):

This week (on Thursday, July 29, 2021), Robinhood will conduct its IPO, trade under the ticker HOOD and raise roughly $2+ billion of new capital. The IPO is being led by Goldman Sachs and JP Morgan, who also organized and provided a $600 million revolver / credit line for Robinhood. Like most IPO's nowadays, there will be three classes of shares. Class A (roughly 1/3rd of shares) are being reserved for existing Robinhood customers. Class B shares carry 10 votes each and will be owned by executives of the company. Class C shares have no voting rights.

Robinhood will likely be one of the "hottest" and most interesting IPO's of the year, certainly since Coinbase's direct listing in mid-April 2021. COIN had an initial $250 reference price and opened up at $381 per share. Over the course of its first day, it peaked at $429.54 per share, but then fell. As of now, COIN has settled in at roughly $250 per share or a market cap of $52 billion.

Once public, the expected market cap of Robinhood will be in the $35 billion range. Using their several hundred page long SEC S-1 filing (click here), we wanted to take a quick look at how Robinhood generates its revenue and what kind of metrics and profitability it has.

Schwab vs Robinhood:

It isn't good enough to have a wonderful and altruistic motto stating that its mission ***"is to democratize finance for all."*** We want to dive into the metrics and financials and compare Robinhood to its largest competitor and rival, Charles Schwab.

As we conducted our analysis on Robinhood, we wanted to compare it to Schwab, which has already reported 2nd quarter 2021 results (on July 16th, 2021).

Schwab (SCHW):

Before we dive into Robinhood, we thought it would be helpful to do a detailed business breakdown of the online brokerage leader, Charles Schwab.

When we initially began to analyze Schwab (in the late-1990's), the primary source of its revenue came from trading commissions. If one were to look back two decades, over 80% of Schwab's revenue came from one-time client trading, while roughly 20% was generated off of assets. Back then, if a retail customer wanted to trade a security, he/she might have $75 to $100 in commissions per trade. Schwab's revenue mix has totally reversed itself and now trading is one of its smallest segments.

Over the last decade or two, Schwab has emphasized the more predictable and recurring revenue aspects of its business. Schwab's institutional business and asset management business continued to grow, as the market climbed higher. Its mutual fund and ETF supermarket has become a powerhouse, now with $229 billion of assets. Another component of Schwab's asset management business is cash management. There always is a residual amount of cash in a client's account. During periods of stress, cash balances tend to rise (into the high-teens of total assets) and during market rallies, cash balances are much lower. For example, in the 2nd quarter of 2021, cash balances as a percentage of Schwab's total assets, were 10.5%. Years ago, when interest rates were much higher, Schwab had a remarkably profitable money market business. It was able to charge fairly high management fees, and still provide a safe (albeit modest) yield to investors. That changed when interest rates fell towards zero. This forced Schwab into rebates, so clients could earn at least 1 basis point. Schwab responded by migrating client cash from its money market fund business into its regulated bank.

Instead of just focusing on the self-directed retail customer, Schwab leveraged its technology and platform for independent financial advisors. Some investors simply feel more comfortable with a financial advisor, and do not realize their advisor is actually having Schwab handled many of their back office and infrastructure issues. This very profitable division used to be called Institutional Services, but now Schwab calls it Advisor Services. Many still view Schwab as a retail-centric firm, but the assets are very balanced between Investor Services (i.e., retail) and Advisor Services.

In the 2nd quarter of 2021, Investor Services had $4.1 trillion in assets (55% of total assets, up 86% YoY and 7% QoQ) versus Advisor Services at $3.4 trillion (45% of total assets, up 82% YoY and 7% QoQ). Just looking at the asset mix isn't enough for us, as we want to decipher profitability by segment.

The number of financial metrics and information the Schwab provides on a monthly and quarterly basis is impressive. If you wish to view the documents we used in this analysis, click here. However, to understand the profitability of Investor Services versus Advisor Services, one needs to look on page 58 of their quarterly 10q.

THE CHARLES SCHWAB CORPORATION
Notes to Condensed Consolidated Financial Statements
(Tabular Amounts in Millions, Except Per Share Data, Ratios, or as Noted)
(Unaudited)

Financial information for the segments is presented in the following table:

	Investor Services		Advisor Services		Total	
Three Months Ended March 31,	2021	2020	2021	2020	2021	2020
Net Revenues						
Net interest revenue	$ 1,454	$ 1,128	$ 457	$ 444	$ 1,911	$ 1,572
Asset management and administration fees	742	600	274	227	1,016	827
Trading revenue	1,097	119	119	69	1,216	188
Bank deposit account fees	254	—	97	—	351	—
Other	178	20	43	10	221	30
Total net revenues	3,725	1,867	990	750	4,715	2,617
Expenses Excluding Interest	2,109	1,154	646	416	2,755	1,570
Income before taxes on income	$ 1,616	$ 713	$ 344	$ 334	$ 1,960	$ 1,047

As you can see here, from their 1st quarter 10q, Investor Services represents 79% of Schwab revenue and Advisor Services is 21%.

The margins between the two segments also dramatically differs. Investor Services, which is 82% of income before taxes, generates an impressive 43.4% margin, while Advisor Services, which is 18% of income before taxes, posted a margin of 34.7%.

From our perspective, we think the Investor Services segment is outperforming, because volumes were fantastic in the 1st quarter. As this settle down and volumes decline, we anticipate margins might decline. Either way, businesses that can sustainably generate 41.6% margins are inspiring. The takeaway, even before we dive into breaking down revenue, is that Schwab has multiple businesses, generating predictable, recurring revenue.

"Free" Trading:

Fast forward to October 1st, 2019, primarily from pressure from "free" trading players like Robinhood, Schwab lowered equity commissions from $4.99 per trade to $0.00. Almost immediately (with a couple of weeks), TD Ameritrade, Fidelity and E*Trade followed suit.

Since trading revenue was much larger at TD Ameritrade, its stock fell over (20%). Within a quarter or two, Schwab announced the acquisition of TD Ameritrade, in a $22 billion deal (closing a year later, on October 6th, 2020). It combined two of the largest and best online brokerages, with over $7.5 trillion of assets (all-time record high) and over 35 million accounts.

We have published notes about "free" trading and how we believe there really is no "free" lunch, especially on Wall Street. Retail clients placing market orders may not be getting the greatest execution for their orders. As transactions go from lit exchanges (New York Stock Exchange or Nasdaq) to dark pools, the participants change. Call us crazy, but we prefer to pay a modest commission to trade, if we can get superior execution of our trades.

October 2019 was a noticeable shift in the entire online brokerage industry. Having trades at $0.00 spurred retail interest and generated massive volumes. Those businesses that were dependent on trading commissions were forced to adapt. Some did and some have disappeared. From our perspective, we do not want to spend too much time discussing past events. Instead, we want to look forward and try our best to understand how the industry will evolve and adapt. We believe those that have diversified revenue streams and predictable, sustainable, recurring revenue are likely to succeed. Those that are a "one-trick pony" might struggle.

M&A:

In 2019, the move to "free trading" spurred significant industry M&A. Schwab purchased TD Ameritrade and Morgan Stanley bought E*Trade. How has the acquisition of TD Ameritrade been going so far for Schwab? Well, it has 3 consecutive quarters of over 1 million accounts, and it opened 1.7 million in the 2nd quarter of 2021.

Morgan Stanley also seems quite pleased with their purchase of E*Trade. Will this industry continue to consolidate around a handful of names? Schwab is likely done with their large deals and may not be allowed to purchase additional online brokers.

There aren't too many publicly-traded online brokers left. Could Interactive Brokers (ticker IBKR) be an attractive asset for a larger brokerage? IBKR has an excellent asset in their TWS trading platform and has been posting excellent results. Its pre-tax profit margins in the 2nd quarter was an amazing 67% and its customer accounts increased 61% to 1.4 million. Robinhood would be wise to consider purchasing IBKR to build out tand improve heir technology and infrastructure, but we highly doubt Chairman Thomas Peterffy and CEO Milan Galik are looking to sell. Click here, to view IBKR's latest earnings report.

Revenue:

To start our analysis, we wanted to breakdown the business by revenue line item. Not all revenue is alike; we want to examine the components of top-line revenue before we dive into company profits. The stock market tends to be very short-term focused. Today, the market is rewarding companies for profit-less revenue. We struggle with the widespread use of revenue multiples. For us, this valuation metric isn't valid. We do not have too many hard-and-fast investing rules, but all of our companies must generate free cash flow.

Revenue:	**Schwab 2nd Qtr 2021:**
Total Revenue	$4,527 m
QoQ growth	(4%)
YoY growth	85%
Run Rate Revenue	$18.1 B
Est'20 Pmt For Order Flow %	6%

Schwab's revenue mix is diverse. In the 2nd quarter of 2021, 43% came from net interest revenue (up 40% YoY and 2% QoQ), 23% came from asset management and administration fees (up 31% YoY and 3% QoQ), 21% came from trading revenue (down 21% QoQ), and 13% came from bank deposit account fees and other.

Schwab's Net Interest (43% of Total Revenue):

If one wants to understand the largest component of Schwab's revenue, you need to look at its balance sheet. There are over $530 billion of interest-earning assets, generating an average yield or spread of 1.46%. The largest piece of this comes from its available for sale securities (2/3rd's) earning 1.28%, but there is also good revenue coming from brokerage client receivables and securities lending (over 3.18% yield). On the flip side of the assets are Schwab's funding sources. Bank deposits represent 69% of the total funding sources and the average yield is a measly 1 basis point. This is the quick summary and breakdown of Schwab's $1.9 billion in 2nd quarter 2021 net interest revenue.

Schwab's Asset Management (23% of Total Revenue):

This is arguably the most attractive component of Schwab's revenue. The stock market loves asset-based recurring revenue. This revenue stream is generated by $1.7 trillion in mutual funds, ETF's and CTF's, where Schwab earns a modest 11 basis points. $157 billion of money market fees earn 7 basis points (after rebates), $415 billion in Schwab equity and bond funds and ETF's earn 9 basis points, Schwab's Mutual Fund OneSource has $229 billion of assets earning 32 basis points and $896 billion is in third-party mutual funds and ETF's earning another 8 basis points. A few years ago, Schwab began to offer fee-based and non-fee -based advice offering, which now has $536 billion earning 37 basis points.

Schwab's Trading (21% of Total Revenue):

Some are surprised to see that Schwab still earns trading revenues, considering equity trading is free, right? Well, options trading is still profitable for all online brokerages. Schwab breaks down "derivative trades as a percentage of total trades" and it currently sits at 20.6%. The vast majority of these derivative trades are option trades. During the 2nd quarter, Schwab executed over 6 million revenue trades per day, at a commission price of $2.51 per trade.

Revenue:	Robinhood 1st Qtr 2021:
Total Revenue	$522 m
YoY growth	309%
Run Rate Revenue	$2.1 B
Pmt For Order Flow %	81%

Robinhood's revenue mix isn't nearly as diverse as Schwab's and there is no need to break down the details to extensively. In the 1st quarter of 2021, 81% came from Transaction-based revenues (up 340% YoY), 12% came from Net Interest Revenues (up 160% YoY) and 7% was from Other.

During its IPO roadshow, Robinhood provided a preliminary 2nd quarter 2021 revenue range of $546 million to $574 million. At the mid-point, this implies 7% quarter-over-quarter growth, off of a very difficult comparison. Based upon this, Robinhood is hoping investors will highly value its revenues.

Payment For Order Flow (PFOF):

Looking at Robinhood's S-1 document, we can see that the vast majority of its revenue is generated from payment for order flow or PFOF. It was over 75% of the total in 2020 and it grew to 81% in the 1st quarter of 2021. Last quarter, PFOF at Robinhood increased by more than 300% and 59% of it is coming from just four key market makers.

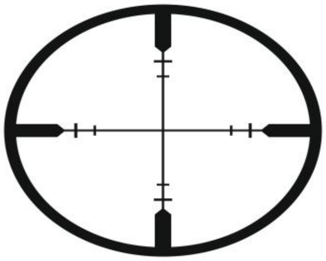
In Robinhood's S-1 filing, it stated that from January 2020 through March 2021, it provided customers with approximately $1.5 billion in price improvements. Also, it claims that it saves its customers as much as $1.6 billion in crypto transaction fees and $700 million in option contract fees (versus their competitors).

TD Ameritrade used to accept PFOF, so it still represents a modest amount of Schwab's revenue (6% of 2020 revenue). While E*Trade accepted PFOF, both Fidelity and Interactive Brokers do not. Regardless of your opinion of PFOF, it has been around for years. Without PFOF, we do not believe Robinhood would have ever been able to offer its retail customers "free trading". By lowering commissions to $0, retail engagement and interest in the stock market has skyrocketed.

The best argument to keep the existing PFOF model in place comes from publicly-traded Virtu (ticker VIRT). It has published an 18-page document (click here) showing how it aggressively competes with Citadel and Susquehanna for retail order flow. The presentation shows how market makers provide price improvement for a brokerage's clients.

The SEC amended its rules in November of 2018, regarding broker-dealer disclosures of order handling and routing, but that was under the prior administration. On February 18, 2021, a US Congressional hearing (related to Robinhood's late-January 2021 trading restrictions) provided some negative publicity and scrutiny of PFOF. Leading this banning of PFOF argument is newly anointed Chairman of the SEC, Gary Gensler. He published some very aggressive comments, which can be viewed here. There is no doubt that PFOF has become more and more important, as the market embraces dark pools of liquidity, computer-generated buy/sell programs, and other technological advances.

During the 1st quarter of 2021, the largest market maker (Citadel) paid over $475 million in PFOF. Will Robinhood be able to wean itself off of its PFOF?



Over the next couple of months, we will likely publish a note on our opinions on PFOF, providing our thoughts and opinions. Over the 2nd half of 2021, we anticipate PFOF will remain a very controversial topic, especially since it appears to be in the SEC's crosshairs.

Fractional Shares & New Investors:

Another item to mention in the trading category is that both firms offer fractional shares. We believe this is a wonderful new development, where investors can invest as little as $5 to own fractional shares in a vast number of companies.

Another interesting metric is that Robinhood claims that over 50% of its investors are "first time" investors. We think it is wonderful that so many new investors are embracing the stock market and saving for their future. The bigger question for us is whether or not Robinhood can keep these customers satisfied. While some customers might like the mobile platform (for their first brokerage account), will they stick with Robinhood as the account grows? Will they migrate to an established firm when they value research or a physical branch? Only time will tell…

Assets:

As we discussed before, Schwab provides its retail or advisor customers a broad range of assets, across ETF's, equities, proprietary or 3rd party funds, and fixed income. For placement in its OneSource marketplace, Schwab earns a steady, asset-based fee.

Assets:	**Schwab 2nd Qtr 2021:**
Mutual Fund	$2,271 B
% of Total	30%
ETF's	$1,404 B
% of Total	19%
Equity	$2,989 B
% of Total	39%
Fixed Income	$360 B
% of Total	5%
Total Assets	$7,575 B
QoQ growth	7%
YoY growth	84%

Unfortunately, as we continue to compare Schwab and Robinhood, we can see that Robinhood lacks asset-based revenues. With its 2nd quarter 2021 pre-release, Robinhood stated its assets under custody (or AuC) rose to $102 billion. This nicely increased by over 25% quarter-over-quarter.

As you can see below, Robinhood breaks downs its AuC into equities, options, cryptocurrencies and cash. However, without PFOF from trading, Robinhood would not generate much in revenue. When Bitcoin is rising, offering trading in digital currencies can be attractive. In the 1st quarter of 2021, trading in Dogecoin was 6% of Robinhood's total revenues (per the S-1). We applaud Robinhood for adding digital currencies to their trading mix, but wonder the sustainability of that revenue stream when a joke digital currency is such a meaningful component of your revenue.

Robinhood wants to generate additional revenue, not just from trading, but by offering other valuable aspects of the brokerage business. Robinhood offers customers ETF's and mutual funds, but can it generate placement fees from these fund managers? Over the last several years, Robinhood has attempted to branch out and launch into new areas of financial services. In 2018, Robinhood tried to offer checking and savings accounts for its customers, but this was ultimately prohibited by regulators as being "misleading" and because of a lack of insurance. Also, Robinhood has tried to acquire a bank charter, but this has not yet been granted.

In its IPO roadshow, Robinhood talked about branching out into retirement services. Will it eventually try to create a payment franchise? What about offering lending services to its customer base? We believe Robinhood will continue to try to shift away from trading and one-time revenue sources.

The most logical and clearest path for this migration is margin lending. As you can see, margin balances are impressive, at over $5.4 billion. These are shown as a negative balance, as it is borrowed assets, not AuC. This can be a very profitable source of spread-based revenue, especially in a rising stock market.

Assets:	Robinhood 1st Qtr 2021:
Equities	$65.1 B
YoY growth	381%
% of Total	75%
Options	$2.0 B
YoY growth	250%
% of Total	2%
Cryptocurrencies	$11.6 B
YoY growth	2,313%
% of Total	13%
Cash held by Users	$7.6 B
YoY growth	42%
% of Total	9%
Margin Balances	($5.4) B
YoY growth	619%

We are curious if all of Robinhood's youngest customers truly understand leverage and the potential dangers of reckless trading. This is why we asked this exact question in our 4th annual Gen-Z Brokerage survey. If you would like to read our "***What Gen-Z Thinks About the Brokerage Business",*** you can read that 14-page note by clicking here. Unfortunately, discussing options and margin lending leads us to the tragic story of Alex Kearns.

Alex Kearns:

Most have heard the tragic story of 22-year-old Alex Kearns, but we believe it is worth repeating. Kearns initially funded his Robinhood account with $5,000 from his grandparents and a lifeguarding job. Kearns quickly asked for and received margin and option capabilities and his Robinhood account ballooned in size.

On June 11th, 2020, Kearns account reflected a negative balance of ($730,000). At 3:26am, an automated email from Robinhood demanded "immediate action" and stated that Kearns needed to provide an additional $170,000 of capital. Kearns reached out to Robinhood customer support and said *"I was incorrectly assigned more money than I should have, my bought puts should have covered the puts I sold. Could someone please look into this?"*

He received an automated message response that said *"Thanks for reaching out to our support team! We're working on this, and we will get back to you as soon as possible".* There was no better customer service mechanism in place, no telephone call…nothing!

Kearns left a note to his parents asking, "*How was a 20-year-old with no income able to get assigned almost $1 million worth of leverage?"* The tragedy of this story is that Kearns committed suicide, when he thought his losses were insurmountable. Making matters worse, the losses were incorrectly shown on his phone and Keane was not down $730,000.

The entire customer experience was botched, and it represents a sad story of how rules should be in place to protect younger investors from making mistakes. Did Robinhood properly ask Kearns if he had the necessary experience to trade options? Was Robinhood steering customers into options since those still generated excellent fees? We hope not, but there are lawsuits and regulations coming on this subject.

Not all customers understand the risks associated with margin and options, so this capability needs to be closely watched. We have heard additional stories of certain young and inexperienced investors not fully understanding option trading and quickly getting "in over their head". We worry that more and more Gen-Z investors (that primarily open accounts at Robinhood) are utilizing margin lending and complex options trading strategies.

Net New Assets (NNA):

One of our favorite metrics to follow is new client assets or net new assets coming into Schwab. This tends to tell us what market share or wallet share a firm is able to produce. If it is bringing in NNA's from retail accounts or through advisors, Schwab has a larger asset base to eventually monetize. Robinhood is not yet at the point where it is releasing NNA's, but Schwab is. Here's the monthly, quarterly and annualized NNA growth Schwab is generating.

New Assets:	Schwab 2nd Qtr 2021:
June 2021 NNA	$43.5 B
MoM growth	55%
Annualized NNA	$522 B
Investor Services	$44.5 B
YoY growth	(61%)
% of Total NNA	41%
Advisor Services	$64.3 B
YoY growth	164%
% of Total NNA	59%
Total NNA	$109 B
Run Rate NNA	$436 B

Accounts:

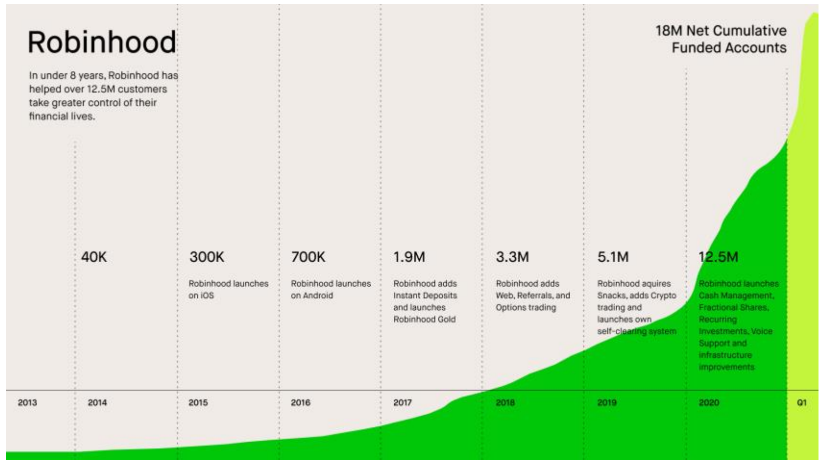
Over the next few pages, we will break down Schwab and Robinhood into various metrics – on an account basis. We want to understand the average account size. How much revenue or profits each funded account generates?

As the data shows, Schwab has roughly 36 million accounts representing $7.5 trillion in assets. That equates to an average account size of over $210,000. Using a straight average can be deceiving, but that is Schwab's quarterly account size. We have seen estimates that the average Brokerage account is well over $300,000 at Schwab, with Advisor accounts larger than typical Retail clients. Also, we can appreciate that Corporate Retirement accounts and Banking accounts tend to be much smaller than Brokerage accounts.

Accounts:	Schwab 2nd Qtr 2021:
Active Brokerage	32,265,000
QoQ growth	1%
YoY growth	125%
% of Total	90%
Banking	1,574,000
QoQ growth	(2%)
YoY growth	8%
% of Total	4%
Corp Retirement	2,149,000
QoQ growth	2%
YoY growth	25%
% of Total	6%
Total Accounts	35,988,000

As you can see in this Robinhood chart, funded accounts have steadily marched higher from 2013 to 2017, but really began to explode higher in 2018 to 2020.

In 2020, Robinhood ended the year with 12.5 million accounts that was up 143% year-over-year. This impressive growth can be attributed to adding products and services like crypto trading and fractional shares.



Funded Accounts:	**Robinhood 1^{st} Qtr 2021:**
Accounts	18,000,000
QoQ growth	1%
YoY growth	125%

The key metric Robinhood investors appear to be enamored with is accounts. In over a few years, it is remarkable that Robinhood has been able to grow its funded accounts to roughly ½ that of Schwab's. However, just as we mentioned, not all accounts are equal and as valuable as others.

Robinhood Gold is their accounts that are offered in-depth research, instant access to deposits, as well as profitable margin lending. These are higher value clients, where Robinhood has the opportunity to generate more revenue per account. From our perspective, we do not view this offering as being incrementally better than a normal account at Schwab, TD Ameritrade, Interactive Brokers, Fidelity or E*Trade. Going forward, we would like to see Robinhood break out the number of funded accounts into Gold versus non-Gold accounts.

Robinhood, with 18 million funded accounts and $80.9 billion in AuC, averages out at $4,500. If we use the 2^{nd} quarter estimates Robinhood provided, AuC increased to $102 billion and accounts climbed to 22.5 million. That implies quarter-over-quarter growth in accounts of 25% and an average account size of $4,533. If we compare this to Schwab, the average account is nearly $1/47^{th}$ the size. In a FINRA enforcement letter back in February of 2021, it claimed that the median customer at Robinhood was only $240 per account. Considering how small that is to our 1^{st} quarter and 2^{nd} quarter calculates, we will use that $4,500 average account size in our comparisons versus Schwab. While the account size is small today, Robinhood investors are betting on retention of these Gen-Z and Millennial customers, as well as good growth of assets per account.

Also, we want to dissect the revenue per account. In its SEC S-1 filing, Robinhood states that its 1^{st} quarter 2021 average revenue per user (ARPU) is $137. Using 18 million of funded accounts and using run-rate revenue of $2.1 billion, we calculate an ARPU of $116. If we use the mid-point of the 2^{nd} quarter revenue range of $560 million and annualize it over 22.5 million funded accounts, we calculate an ARPU of only $100.

How does that compare to Schwab? There are material differences between retail versus advisor versus retirement accounts, but we will simply use their 36 million total accounts. Using a 2nd quarter run-rate revenue of over $18 billion, Schwab's ARPU is over $500 or 5x's Robinhood's level.

Profitability:

As we have stated several times, we tend to focus our attention on profitability, not just revenue. Schwab continues to post stellar profitability margins (44.6% in the 2nd quarter of 2021) and has generated 25 straight quarters in excess of 35% pre-tax profit margins.

Profits:	**Schwab 2nd Qtr 2021:**
Adj Net Income	$1,483 m
YoY growth	100%
Adjusted Profit Margin	44.6%
YoY growth (in bps)	+460bps
Return on Tangible Equity	20%

Profits:	**Robinhood 1st Qtr 2021:**
Net Income	($1,445) m
GAAP EBITDA	($1,426) m
Adj EBITDA	$114.8 m
Adjusted EBITDA Margin	22%

Excluded from EBITDA are $9 million of quarterly share-based compensation and $1.492 billion of a change in the fair value of convertible notes and warrant liabilities. After years of adjusted EBITDA losses, Robinhood appeared to turn the corner in 2020. Was it due to the remarkable growth in retail trading and meme stock popularity? Only time will tell if this is sustainable.

Once again, we want to compare the profitability per account of Schwab versus Robinhood. Schwab's run-rate net income per account calculates to $165. Robinhood adjusted EBITDA profitability (not apples-to-apples) per account is $26, which is less than 1/6th as profitable.

Looking Forward:

Robinhood continues to grow impressively, especially on the new account front. That level of growth will eventually slowdown, but it is running "very hot". Is this being fueled by a strong stock market, up +18.5% this year and +18.4% last year? Is this growth coming from inexperienced, but engaged Gen-Z and Millennials? Is it being driven by meme stocks? Once again, our "***What Gen-Z Thinks About the Brokerage Business?"*** research note sheds like on this subject.

As our research and survey concluded, Robinhood is mostly succeeding due to its excellent UI (user interface) and easy-to-use mobile-based trading platform. Historically, the online brokers have been able to generate new accounts by heavily advertising on CNBC or Bloomberg or business TV. During the 2nd quarter of 2021, Schwab spent $128 million on advertising and market development, which was up 83% year-over-year and 10% quarter-over-quarter. This level of spending annualizes to over $500 million per year or 2.8% of total revenue. While this has been higher (both absolute and relative to revenues), it is still a large amount of money. Does Robinhood plan on advertising more? Well, it probably spent $5.5 million on its first 30-second TV ad during the February 2021 NFL Super Bowl. We believe that a publicly-held Robinhood will look to dramatically increase its marketing and TV spending.

Also, running a brokerage firm can require costly infrastructure, real estate and operation costs. We have heard from Interactive Brokers that there's a cost per account to properly serve its clientele.

Comp Table:	**Price (7/26/21):**	**Market Cap:**	**P/E '22:**
Schwab	$67.85/share	$128 B	18.5x
Interactive Brokers	$60.50/share	$25 B	19.4x
Robinhood	$38 to $42/share	~ $35 B	n/a

- *This is based off of 835 million commons shares, not including any possible underwriter purchases*

The balance sheet at Robinhood has been strengthened and will get a much-needed boost and $2 billion infusion from this IPO. However, Robinhood's broker-dealer subsidiary is far from the best example of a fortress balance sheet. The bulk of its assets are $4.8 billion of cash, $5.4 billion of receivables from users and working capital of $5.7 billion. Liabilities are $8.9 billion, redeemable convertible preferred stock is $2.2 billion, payables to users is $5.9 billion and there's a deficit in stockholders equity of ($1.5) billion. The IPO will strengthen Robinhood's balance sheet and allow it to better operate going forward. We are sure that Vlad does not want to repeat the late-January 2021 forced capital raise and clearing issues.

Price Target:

With its IPO this week, we expect the share price to rocket higher. For us, at a $35 billion valuation, Robinhood simply does <u>not</u> make sense.

We anticipate the dozen or so sell-side analysts that will cover Robinhood will highlight the attractiveness of the mobile-based platform and the growing attractiveness to Gen-Z investors. We expect to see them launch coverage with "buy" ratings and price targets based off of 2025 to 2030 projections. We can appreciate the need to go out 5 plus years on Robinhood, but we think there is significantly more risk than reward on this story. Assuming you believe it is worth $35 billion, you need this management team to execute flawlessly. Did we mention that CEO Vlad Tenev is 34 years old and co-founder Baiju Bhatt is just 36?

Owners of Robinhood also need the SEC investigation into PFOF to disappear. We aren't willing to make that bet and know that Chairman Gensler can be a "bulldog", from his prior leadership of the CFTC. We think Robinhood has more downside risk, than upside potential. We will now attempt to show you how we arrive at our price target.

As we always do, we want to try and quantify our price target. In terms of a price target for Robinhood, we would begin to sharpen our pencil on owning some shares around $20 to $25 per share or an implied market capitalization of $15 to $20 billion.

What is our back-of-the-envelope on this $20 billion target? Simply, it equates to roughly $900 per account. This seems fair, but would still not provide much in terms of downside protection, in case PFOF gets banned. When one considers each account is only $4,500 in size, generating an ARPU of only $100 and they have fairly little in profit per account, we would not feel comfortable paying much more than this per account. In our opinion, Schwab should and does trade at a premium (on an account basis) versus Robinhood at a $20 billion valuation.

Now, let's arrive at this target from another methodology. Let us assume Robinhood can grow its 22.5 million funded accounts by another 25% to 30% next year. That would have Robinhood exiting 2022 with nearly 30 million accounts. Also, let us model in profitability (on an adjusted EBITDA basis) doubling from $26 per account up to $50 per account. We believe that would be an aggressive estimate, considering Robinhood's need to increase spending and expenses. However, let us model in this improving scenario. This would generate $1.5 billion in adjusted EBITDA for Robinhood and we believe a fair forward EBITDA multiple would be in the 14x range or $20.5 billion. With an expected market cap of $35 billion, we believe Robinhood has a downside target of over (40%).

Conclusion:

Robinhood has done an admirable job of building out a trading platform, appealing to the growing Gen-Z and Millennial demographic. It seems to be genuinely interested in helping young people learn about savings and investing. We think it is great that Robinhood's motto ***"is to democratize finance for all."***, as that is quite admirable.

We anxiously wait for Robinhood's IPO this week. We expect it will be a "hot" deal, but it simply isn't for us. We are long-term investors, seeking companies that have both attractive fundamentals, as well as a compelling valuation. We do not believe that Robinhood can maintain this level of growth and we do not believe the valuation is terribly attractive either. On a per account basis, Schwab's accounts are 47x larger in size, generate 4.3x more in revenue and also 6.5x the profits of Robinhood.

Robinhood is at an interesting point in time. We expect its expenses will need to dramatically increase as it looks to market itself and build out its platform. Robinhood has incurred operating losses in each year since its inception in 2013 and we struggle to see it turning truly profitable in the next 1 to 2 years.

We worry about Robinhood's infrastructure. It has received numerous fines (FINRA, SEC, etc), as it seems to be unable to properly handle its enormous growth. Recently, it was fined $10 million by New York regulators for cybersecurity problems. It has also received a $65 million SEC fine for "misleading" its customers and a $70 million fine (from FINRA) for technology and trading failures. Not only has it been heavily fined, but Robinhood has 15 putative class actions filed against it. In addition, over the last few years, Robinhood's platform has also been compromised. In 2020, over 2,000 customer accounts were allegedly accessed by unauthorized users.

Bullish investors will claim that these are natural growing pains for any firm, but it just highlights how much Robinhood needs to invest in its operations. Unfortunately, these type of issues and negative publicity can offset all of the benefits of a great UI and mobile-based platform.

If we were to identify our biggest worry, it would be revenue diversification. As we stated earlier, over 80% of Robinhood's revenue stems from PFOF. With the SEC closely looking at this, we worry that regulatory pressures could materially impact Robinhood's business. There is no way that Robinhood can begin to charge its customers for equity trading, to offset lost PFOF revenue. Once the whole industry embraced "free" trading, we do not believe equity commissions can ever return.

Lastly, just like the market is trading Coinbase stock closely to that of Bitcoin, we believe Robinhood's stock will tightly correlate to retail trading and the overall meme stock universe. If the market climbs and volumes continue to climb higher, Robinhood's stock may work. If the market corrects, experiences volatility or volumes decline, we believe Robinhood will underperform. To state the obvious, we simply believe that Schwab or Interactive Brokers are better options for those seeking online brokerage exposure.

We look forward to speaking with you soon!

Warren Fisher, CFA
CEO of Manole Capital Management

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