MANOLE CAPITAL MANAGEMENT

Introduction

There’s no sugar coating it – 2020 was a challenging year. For all of its hardships, we found it to be a year of profound focus, transparency and learning. The country confronted a once-in-a-century pandemic, a major recession driven by the service sector, social tensions and finished up with a divisive election. Although these issues struck all at once, we worked through these difficulties and endured. Your life definitely changed in 2020, but it might take some time before you know in exactly what way.

Heading into 2021, the US faces records numbers of COVID-19 cases. However, the stock market continues to chug along and hit all-time highs. As the pandemic drags into 2021, one has to decide if the glass is half empty or half full.

Some economists are pessimistic, citing a spike in cases, leading to new restrictions on businesses, which will slow the labor picture. US unemployment surged to 14.7% in April from a low point of 4.4% in March. The recovery has been slower than what we had hoped for. In November, the Labor Departments job report was a robust 336,000 but in December, there was a decline of 140,000 jobs. This was the worst month for the recovering labor market since April. Jaime Dimon, CEO of JP Morgan recently said he is worried about the future: “Short-term government actions can’t fix the lasting pain and widening inequality in the economy.”

Others are optmistic, citing the second pandemic-relief package of $900 billion, which should pump some stimulus into the economy. According to Jefferies economists, $1 trillion of additional spending will add 2% to economic growth over the next two years. Plus, evidence shows that Americans actually saved a surprising amount of their first stimulus check. In November, the US personal savings rate was 12.9%, well above the 7.5% a year ago. Borrowing costs are remarkably cheap and the Fed will likely keep interest rates low for another year or two. According to Moody’s Investors Services, US companies are sitting on the largest pile of cash ever. With over $2.1 trillion dollars of capital, up over 30% year-over-year, this is nearly double cash levels in 2010. Eventually, these firms will have to put that money to work. The US GDP contracted by (3.5%) last year and estimates are looking for growth of +4.2% this year. Looking forward to 2021 and 2022, the economy has to turn away from a work-from-home, business lockdown environment. Are things going to materially improve in 2021, or will we fail to deliver on the promise of growth? What lies ahead? Will 2021 introduce more disruption, or will it be a year of opportunity?

Let’s discuss…

Annual Predictions

As we turn the page on another year, it is a Wall Street tradition for market strategists and economists to make audacious pontifications about what might happen for the upcoming year. Whether it is projections on stock indices or interest rates or commodity prices, these guestimates garner a lot of attention. These “experts” have access to the best data and vast resources, but typically arrive at hilariously incorrect predictions.

Even as you read this newsletter, you probably have dozens of 2021 prognostications in your email inbox. We know that sweeping forecasts get the page views, but that is not Manole Capital’s forte. We are not planning

on providing the 21 surprise forecasts for 2021, and we will not give you a Top 10 list of what you can expect this year. We like Lao Tzu's quote: "Those who have knowledge, don't predict. Those who predict, don't have knowledge."

If 2020 taught us anything, it is this: To even try to make accurate market predictions is futile. We didn't hear one market participant mention a killer virus that would plunge the global economy into the worst recession since the Great Depression and lead to one of the largest stock market corrections in history. Did anybody predict that the price of oil would crater, tumbling below $0 per barrel?

That is why we have seen plenty of commentary about value stocks outperforming growth, a weak US dollar, rising inflation leading to higher commodity prices. Will this happen? Who knows! The only real prediction to make is that there will be tons of surprises in 2021, likely resulting in elevated volatility.

Twelve months ago, many experts were estimating S&P 500 earnings growth of +10%. Keeping forward valuations steady, that would imply the market rising by its 75-year average increase of roughly 7% to 8%. Nobody envisioned a global pandemic and an environment that would make the Financial Crisis of 2008 look tame in comparison.

If only we had Johnny Carson's Carnac the Magnificent to help us figure out what lies ahead…

Instead of making bold predictions, we run various scenarios (bullish, bearish and angry bear) through our proprietary company models. We like British philospher Carveth Read's quote of "I'd rather be vaguely right than exactly wrong."

What If?

Let's imagine there was one analyst that had amazing forecasting and epidemiological knowledge. Also, let's assume this individual correctly predicted a massive global pandemic, with 19 million recorded infections, over 350,000 US deaths, overwhelmed hospitals, vital resources stressed and an environment filled with lockdowns. Not only that, this hypothetical visionary foresaw the end of an 11-year bull market; quarter-over-quarter GDP declining by (31.4%); millions of businesses closing; an awful recession; and unemployment reaching 14.7%; its highest level since the Great Depression.

What if this modern-day Nostradamus also accurately guessed that the International Monetary Fund would project that the US would see its economy shrink by (4.3%) and the eurozone contract by (8.3%)? Would this expert have forecasted that the S&P 500 would have responded to this environment by rising +18%? How does a weaker economy, feebler earnings and lowered expectations lead to large market gains? Sometimes, one can perfectly spot a trend or make an accurate prediction but still not be rewarded with the correct market reaction.

Maybe one of the lessons of 2020 is that correctly predicting certain macro events isn't enough. What mattered most this year was the scale and speed of central bank and government support. The Fed, European Central

Bank and Bank of Japan have collectively expanded their balance sheets by roughly $8 trillion in 2020. The US's balance sheet grew as much in six months as it had over the prior 12 years. This prompt and sizeable response to crisis helped buoy the markets. Despite the worst recession in centuries, the US stock market has quickly rebounded and climbed to all-time highs.

As we start 2021, bulls are predicting a great re-opening of our economy not experienced since the Roarin' 20s. With assurances from the Fed to keep interest rates low and monetary policies favorable, some view this backstop as a perfect reason to own equities. Others are bearish and worry about debt levels, persistently high unemployment and ominous parallels of current valuations to those last seen in the Dot Com era. These pessimistic investors believe the market is addicted to "hope-ium," a drug based on dreams, not reality. These market gurus worry that monetary policy is exhausted and fiscal policy is at the mercy of a bickering Congress.

We wish we could look into a crystal ball and give you a decisive answer to these economic questions. Sorry! The sad reality is we cannot. Instead, we will remain diligently focused on our fundamental research and disciplined to our 25-year investment process, strategy and philosophy. While it is good to look forward and plan for various scenarios, we strive to focus on the fundamentals, instead of getting caught up in the short-term headlines.

Performance

From February 19th through March 23rd 2020, the S&P 500 fell by over (33%) in 33 days. This was was the fastest (30%) decline ever recorded. However, for the full 2020 calendar year, the S&P 500 (which we still view as the best representation of the US stock market) was up +18.4%.

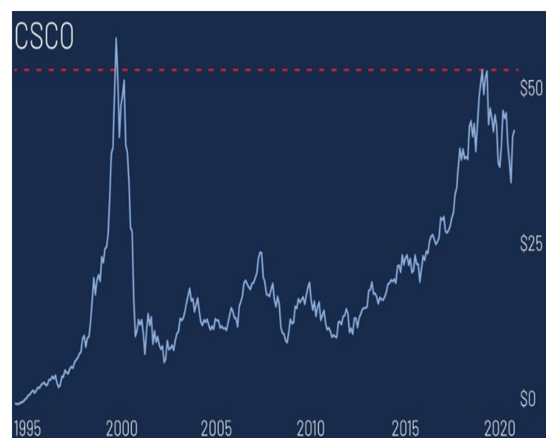
The stock market's rally off the March lows was driven in large part by tech-heavy growth names. Last year, the NASDAQ 100 climbed +47.6% and the Nasdaq Composite was up +43.6%, its best year since 2009. Over the past two years, the tech-heavy Nasdaq rose by +94%. If one looks at Facebook, Apple, Amazon, Google and Microsoft, they represent roughly 25% of the value of the entire S&P 500. This is approximately 2x, where these five stocks were in mid-2017. Without these stocks, the S&P 500 would have been (11%) lower than its 2020 peak.

Also, for the last 13 years, growth stocks have materially outperformed their value peers. In 2020, growth stocks (in the S&P 500) returned +31% including dividends, while value stocks were down (1%). One of the more interesting trends we are watching is how the market is occasionally rotating towards underperforming areas like value, small-caps, banks, and energy. So far in 2021, the energy and financial sectors are leading the way. Will it last? Are these real signs of a rotation or just another head fake? A bifurcated recovery may persist into 2021 while we wait for vaccines. For example, the housing sector is booming with low interest rates, while many service industries (where social distancing is difficult) continue to struggle.

2020 commodity winners were soybeans up +39.5%; orange juice up +26.8%; copper up +25.8%; and corn up +24.8%. The energy sector continued its struggles, down (37.3%); with gasoline down (17.1%); and NYMEX

crude down (20.5%). However, nothing quite performed like digital currencies, with Bitcoin up over 300% last year. It took nearly 11 years for Bitcoin to reach $20,000 per coin (on December 16th, 2020), and then it took just 22 days for it to surge to $40,000 per coin. During the depths of the pandemic in March, Bitcoin traded as low as $3,867. With prices recently above $40,000, that's 10x growth in less than a year. The last rapid increase in Bitcoin occurred in late 2017, but that was quickly followed by a 1-month sell-off of roughly (50%).

Timing is critical for any investment, but market timing is impossible to do. For example, it is hard to recover from buying at a top, as this chart shows. If you bought Cisco (ticker CSCO) at the peak of the Dot Com era, you would still be underwater two decades later.



Bringing 2020 to a conclusion, we are pleased that every one of our FINTECH portfolios outperformed its benchmark last year. To view any of our monthly tearsheets, just visit our website at www.manolecapital.com and click on the *Portfolios* tab.

Now that we briefly discussed how certain areas of the market performed last year, let's spend a little bit of time reviewing current valuations.

Valuations

Accoring to GMO research, 150 stocks at least tripled in market value during 2020. While certain stocks appear to be "running wild", as investors chase returns, one must look at each security on its own merits. So, the overall market can trade at 22x forward P/E valuation, but this is just an average of its index participants.

However, we expect a correction is coming, with frankly no idea the headline that will cause it. *When*, not *if*, a correction occurs, it really should not come as a total surprise. Analyzing the S&P 500 over the last 40 years, one notices that corrections are the normal course of business. Since 1980, the average intra-year correction for the S&P 500 is (13.8%). Only twice, in 1995 and 2017, has the market not dropped at least (5%) at least once.

Many experts are suggesting the market is overheating and valuations are too high. On the flip side, some claim that with low inflation and a ZIRP (zero interest rate policy) from the Fed, valuations should be higher for equities, when compared to fixed income. Low interest rates have encouraged those seeking a yield to move towards riskier assets, like stocks, and should mean that the stock market should trade with a higher multiple. If an investor can only expect to earn a 1% return on a 10-year US Treasury, they will begin to look elsewhere for a better return. If the risk-free rate is only 1%, investors will demand an equity risk premium of 300 to 500 basis points for the added risk. A stock market earnings yield of 4% equates to a 25x P/E ratio.

Many pundits are harping on the market's valuation, alluding to the Dot Com bubble era. Comparing today's market to the Dot Com era is not necessarily fair. Technology firms today generate substantial free cash flow

and earnings. Twenty years ago, the darlings of that era had no earnings and were being valued on page views. In 2020, the largest technology stocks generated more than 15% of the S&P 500 earnings. All are posting impressive growth rates and looking out to 2023, these Technology stocks are projected to exceed 20% of the market's total earnings.

As the largest weight in the S&P 500 at 28%, the Technology sector has driven the market to its heights. Currently, the Technology sector trades at 29x last 12-months earnings, which is well above its 5-year average of 20x. Financials are the 3rd largest sector, but they have struggled in comparison to technology. Financials are credit sensitive, and a low interest rate environment is tough on their margins. This rate sensitivity a lack of growth made Financials the second worst performing sector last year, down (4.1%). As of today, the Financial sector trades at 17x trailing earnings, which compares to its 5-year average of 14x.

News stories about the DJIA (Dow Jones Industrial Average) hitting 30,000 are popping up, but we continue to think that the DJIA, only 30 large-cap companies, is not the best representation of the US equity markets. Our primary issue is that it is weighted by share price, not market capitalization. A company's stock price provides little information about a company, so weighting an index by market capitalization would be much more insightful. We use the S&P 500 as that benchmark, but it too has flaws. The S&P 500 is comprised of roughly 500 stocks, ranging across 11 distinct sectors, but it does have a large cap bias. With a market cap weighted index, bigger companies end up having more influence in the index. As of today, Facebook, Amazon, Apple, Google and Microsoft represent roughly 25% of the entire S&P 500.

4th quarter 2020 results are getting reported right now, but both revenue and earnings will likely be down for most companies. Besides just revenue and earnings, we consistently focus on operating profit margins and free cash flow. This year, the S&P 500 is estimated to generate 11% operating margins. While this is up over 100 basis points versus last April, it is still well below its all-time peak in September 2018 of 12.4%. This type of operating margin is fine, but certaintly nothing special (in our opinion). For example, our average FINTECH position generates an operating 2x to 3x this level. Plus, everyone of our positions generates free cash flow.

Whether it is Tesla -upon its inclusion in the S&P 500 benchmark – or another company, investors should consider valuation and attempt to understand the fundamentals of a business when constructing a disciplined investment strategy. Unfortunately, many investors do not follow an investment philosophy and attempt to piecemeal together a process based upon market timing and yesterday's news cycle. We cannot stress this investment philosophy point enough: The benefit of active management is that a manager uses experience, judgement, and an investment process to differentiate a portfolio from the overall market. By simply using an overall market average, one fails to capture the potential benefits of active management versus passive, index investing.

Investors must be able to identify and distinguish winners from losers. The market differentiates between those with a bright future versus those that are merely surviving. Unprecedented monetary and fiscal stimulus came to the market's rescue in 2020, but individual company fundamentals will matter in 2021. Not all industries are

equally capable of handling stress. Not all companies generate free cash flow and can "weather a storm" or a recession.

At Manole Capital, we only focus our attention on the emerging FINTECH industry, and we leave healthcare, energy, consumer and other sectors to their "experts." We feel it is important to differentiate. By limiting our investments to a niche, we can spend 100% of our time fully understanding what drives growth in our businesses. We can identify and capture trends we see before they become widely understood. By sticking to FINTECH, we believe we can add value for our clients.

There is no denying that the effects of 2020 might lead to unintended future consequences. There is an enormous and continuously growing national debt. Will this cause a long-lasting hangover? It does not appear that Wall Street is factoring all of these concerns into their forward valuations and estimates.

Let's now discuss important macro issues, monetary and fiscal policy, the jobs market and future growth…

The Macro Environment

Politics: At Manole Capital Management, we attempt to take a politically agnostic approach to investing. This attitude does not mean that politics does not matter to us. It absolutely does! But for us, it makes sense to form an investment thesis once a policy is known or poised to be enacted into law. We believe it is better to watch what politicians do, not necessarily what they say, especially on the campaign trail. When the political or social environment feels uncertain, we maintain our discipline and focus on our 25-year investing strategy, process and philosophy. We remain bottoms-up research analysts, and we make our investment decisions based on the fundamentals. We have found this steady, patient, long-term-oriented approach, often leads to success. Heading into early November, some placed too much emphasis on the political cycle and not enough importance on the business cycle. The media kept claiming that the financial markets were overvalued and not accurately pricing in the grim realities of Main Street. However, this failed to capture the differences between normal recessions and what occurred in 2020.

Recessions: Prior recessions were primarily caused by systemic failures in the financial markets, not a global pandemic. Unlike prior recessions, there were no major structural or cyclical issues in 2020. During the Financial Crisis of 2008, many banks and financial institutions were considered villains, for helping to inflate the housing bubble. This time, banks were quick to roll out programs to help borrowers delay certain debt payments. Last year's recession was not due to excessive risk taking, but rather due to a sudden, extraneous shock to the system coupled with a self-induced shutdown that ultimately decimated economic activity.

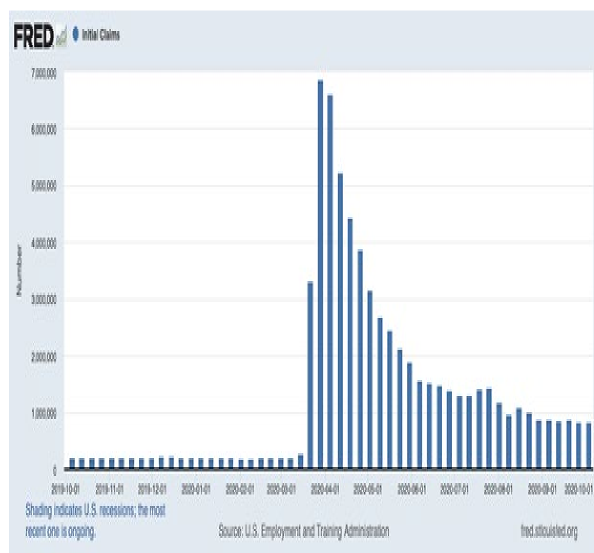
Before COVID-19 arrived, the global economy had been on firm footing, and the fundamentals were very strong. As the virus settled in, Wall Street's response was swift. Over the course of a month, the S&P 500 fell over (30%). Using history as a guide, markets typpically reach a bottom four months *before* a recession officially ends. Since 1982, it has taken the US economy an average of roughly four years to fully recover from a recession. Following the Financial Crisis, it took six years. The 2020 stock market didn't need that long. After roughly one month, with

the help of massive global fiscal and monetary stimulus, the stock market was able to quickly right itself. While the stock market climbed higher, the US economy and small businesses were not as quick to restart, and the fundamentals have not returned to prior levels. As we know, the stock market always looks ahead to brighter days, to a more normalized environment. Wall Street does not wait for good news; Wall Street anticipates it.

Fiscal & Monetary Policy: Monetary and fiscal policy are the two largest inputs to financial markets. This will not change for the foreseeable future. The Fed and US Treasury response was decisive and over-whelming. Through bond purchases on its balance sheet, the Fed has pumped in about $3 trillion into the financial system. Every month, it plans on buying another $120 billion, adding to its $7.2 trillion balance sheet. The governments's $2 trillion CARES Act injected significant money into the economy, with increased unemployment benefits, stimulus checks and business lending programs. The combined stimulus amounted to more than 15% of US GDP.

Despite being only 5 feet 3 inches tall, soon-to-be US Treasury Secretary Janet Yellen told the Senate Finance Committee that the government must "act big," on its next stimulus package. She stated "With interest rates at historic lows, the smartest thing we can do is act big." At her confirmation hearing, she showed a re-thinking on the subject of government debt. Yellen hinted that we should begin to forget about the amount being borrowed and start to focus on the low interest rate being paid. "The interest burden of the debt as a share of (GDP) is no higher now than it was before the Financial Crisis in 2008, in spite of the fact that our debt has escalated." As the government looks to increase stimulus and spending, the fact that our interest payments are no more as a share of GDP now than in the 1990s, will be center stage.

Jobs: In our opinion, the jobs outlook is one of the most important macro issues to follow. We hate to simplify things too much, but the US consumer has no money to spend, if they are unemployed. In the US, we are poised to add more jobs this year than during any other on record, dating back to 1939. However, job growth will likely return slowly, as businesses will remain cautious on the economy.



Looking at this chart, one can clearly see how awful the massive pop in unemployment was. We have unfortunately permanently lost certain businesses and there are likely to be more closures this winter and spring – although fiscal stimulus has been beneficial and incoming leadership is advocating for more.

Before the pandemic, unemployment was at a 50-year low of just 3.5%. Last month, the Labor Department reported the US unemployment rate was at 6.7%. Economists vary on their expected 2021 new jobs, with IHS Market research at 6.7 million jobs, Oxford Economics at 5.8 million and the University of Michigan at 5.3 million. However, even the most bullish outlook still does not replace the 22 million jobs losses from last spring.

Improvements in the job market should correspond fairly tightly to gains in spending. While challenging times are still ahead of us, there remains one hero of our economy – the resilient and strengthening US consumer.

Savings: Heading into the pandemic, half of all small businesses held less than 15 days of cash on hand. Since then, most businesses continue to hoard cash to help them ride out this economic storm because, despite record unemployment in May, US consumers were not behaving like typical consumers during a recession. The US consumer decided to spend considerably less and save significantly more, which has baffled most economists. US consumers are surprisingly paying down credit card debt. A survey by the New York Fed found that more than 2/3rd's of the first round of households stimulus were saved or went to paying down debt. JP Morgan stated that 30% of its customers were still holding onto their prior stimulus checks. According to Fair Isaac, the average US consumer's credit score has actually increased during this recession. All of this has fueled the US household savings rate to an all-time high.

Now that the second stimulus bill has been passed, we will closely watch to see how the US consumer responds and spends. While many Americans have managed through this crisis, millions remain as vulnerable as ever before. Will consumers hoard this new round of stimulus? Or, will they begin to spend like a drunken college student on Spring Break in Panama City? The economy certainty would prefer the latter…

Growth: The stock market loves certainty, but forward growth expectations remain quite cloudy. There is widespread enthusiasm about vaccines, but the pace of rollout has been somewhat disappointing. The World Bank just cut its forecasts for 2021 to only 4% growth and warned of the prospect of a "lost decade" ahead of us. It cited lower trade, pandemic uncertainty, and disruptions to key eduction initiatives as reasons for its bearish outlook. Ayhan Kose of the World Bank said "we think the global economy is headed for a decade of disappointing growth outcomes.

A recent Wall Street Journal survey of forecasters projected the US economy will grow by +4.3% this year. For the 4th quarter of 2020, estimated earnings for the S&P 500 are expected to fall by (8.8%), which is the third largest year-over-year earnings decline since the 3rd quarter of 2009. Will results merit the stock market hitting all-time highs? Are investors ready for a wild ride? In our opinion, the better question is what is or isn't priced into the recent equity rally.

Conclusion:

2020 put us all to the test. After an awful year, things are starting to improve. Despite the devastating impact to human life, we made a dramatic digital leap forward. We have seen incredible resilience from small business owners, consumers and policymakers, all striving to keep us on the course to recovery, to normalacy. With a vaccine getting distributed, we will be able to rebuild the connections lost and forge a better future.

As we look forward, we anticipate a absolute tidal wave of approaching spending. Mastercard just reported its January 2021 SpendingPulse report, and the consumer is bouncing back strongly. US retail sales were up +9.2% year-over-year, with online sales growing +62.1%. We believe certain sectors and industries, especially many of our FINTECH and payment holdings, will rebound quicker than others. Investors should not fret that they have

"missed the boat." We know there will be pullbacks, with the ebbs and flows of the news cycle. We believe that economic recessions end when the economy returns to growth, even if that growth is only modest. After the Financial Crisis, it was not until late fall of 2009 when advances in the labor market became visible. If one waited to see those improvements, one would have missed the first six months of a decade-long bull market.

Growth is returning, and the forward-looking economic picture is encouraging. This should have investors excited about 2021 and beyond. The stock market is pricing in what the US economy will look like in 12 to 18 months, not yesterday or even today. From our perspective, we remain cautiously optimistic. We are staying patient and focused on the long-term. We have positioned the portfolio for a return to "normal"; however the exact timing of that "normal" is uncertain. We are not market timers, but are confident the economy is in a much better position than we were back in March. As Warren Buffett once said, "In the business world, the rear-view mirror is always clearer than the windshield."

FINTECH Themes

Over the next few pages, we will address some FINTECH-specific issues we are focused on. The first is retail trading, the arrival of Wall Street Bets and the upcoming Robinhood IPO. The next FINTECH theme is digital currencies, Bitcoin and the Coinbase IPO. The third topic is digital, mobile and contactless payments, as well as details from the 2020 holiday shopping season. The final FINTECH topic discusses how FINTECH companies are "nimble", Visa's failed acquisition of Plaid and the emergence of BNPL (buy now, pay later).

Make sure you make it to the end, so you can read our special Cliff Clavin section. We hope you find these FINTECH topics interesting…

FINTECH Theme #1 Trading

Before we discuss retail trading and the explosion of volumes, we should start by addressing the IPO and SPAC marketplace. Clearly, the capital raising "window is open".

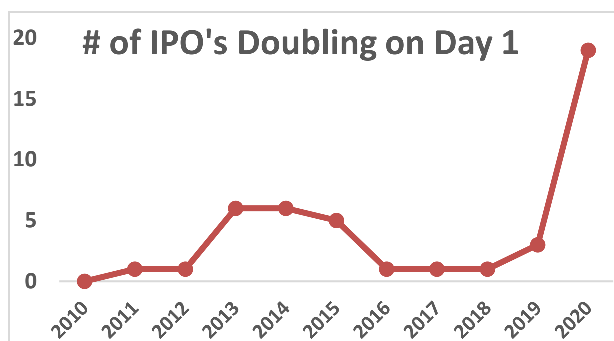
IPOs & SPACs

As we discussed in last quarter's newsletter (click here), the SPAC (special purpose acquisition companies) and IPO (initial public offerings) markets are "on fire." According to Dealogic, 2020 was a record year for the US IPO market, as companies raised $167 billion through 454 offerings. The prior full-year record was set in 1999, during the Dot Com era at $108 billion. Capital raised by SPACs last year more than quintupled, across over 200 offerings (per S&P Global data). January 2021 was the best January for IPOs in more than 25 years, with 116 companies raising $39 billion. Over the last 3 months of 2020, 39 SPACs announced transactions. These SPACs

climbed an average of +5.4% on the day of their announcement and were an average of +16% higher over the next month (per Dow Jones market data).

Affirm (ticker AFRM) is a BNPL (buy now, pay later) company that we will discuss later in the newsletter. After the enormous success of its early January's IPO, which more than doubled from its initial offering price, we envision the 2021 market for FINTECH IPOs should remain strong.

Other FINTECH companies are taking the SPAC route, with Social Finance or SoFi as a recent example. SoFi agreed to be acquired by a SPAC (Social Capital Hedosophia Holdings), with an implied valuation of $8.65 billion. The SPAC purchasing SoFi immediately advanced +63% upon the annuncement. SoFi has 1.8 million members and started as a student-loan refinancing business. It has received preliminary approval from the US Office of the Comptroller of the Currency to receive its much sought-after national bank charter and has branched into mortgages, personal loans, credit card refinancing, insurance and investing accounts.



The banks that manage the IPO process are supposed to equally weigh supply and demand dynamics to ensure the company going public raises as much money as possible. However, brokerages are signficantly underpricing these deals and have underappreciated retail interest. By underpricing the initial price, these brokerages are doing a disservice to the newly public company by not raising as much capital as it should have received.

Nineteen IPOs have doubled on their first day of trading this year, significantly more than in any year over the last decade. It looks like these banks have significantly underestimated demand, to the detriment of their now public company clients.

Two of 2021's potentially largest IPOs are both in our FINTECH space – Robinhood and Coinbase.

Trading Volumes

We believe that this growth was spurred by a historic event in the fall of 2019. While there have been commission-free trading shops around for years, the announcement by Schwab (ticker SCHW) on October 2nd, 2019, to permit commission-free trading was historic. We believe this action by Schwab was recognition of the strong account growth (primarily in the Gen-Z demographic) from upstart rival Robinhood. Once Schwab went commission-free, TD Ameritrade (ticker AMTD), E*Trade (ticker ETFC), Fidelity (private) and others quickly followed. This ultimately led to industry consolidation, as Schwab bought TD Ameritrade for $26 billion and Morgan Stanley purchased E*Trade for $13 billion.

The retail investor is back, so individual investors need to be considered and better understood. Although some retail accounts might be small in size, they collectively have become a powerful force. Historically, institutional

and professional investors were the main cohort that mattered to publicly traded firms. Now, according to Citadel Securities, individual investors account for roughly 20% of the daily stock-market activity which is double its market share in 2019.

Overall, volumes soared in 2020, and many online brokerages catering to individual retail traders drove this growth. Specifically, equity and options experienced huge increases in volumes last year, with year-over-year increases of +55% and +58% respectively. In 2020, equities averaged 10.9 billion shares per day, while options climbed to 27.7 million contracts per day, both all-time records. Sandler Piper research shows that TRF (trade reporting facility) volumes are on record pace. In January of 2021, average volumes are over 2x the average in 2019. On January 27th, US equity share volumes set an all-time record of 24.5 billion shares traded. In addition, US equity options volumes also set a record of 57.1 million contracts.

All trading is not equal. While equity trading is "free," option trading still remains quite profitable for the online brokers. Brokerages also earn revenue from margin loans, securities lending and PFOF (payment for order flow). The website Wolfstreet reports that margin debt last month stood at a US record of $778 billion, up over +40% year-over-year.

Besides commissions, the capability to fractionalize trade stocks (down to $1 increments) is an interesting trend worth watching. With dozens of stocks in the hundreds per share and seven companies in the S&P 500 with share prices above $1,000 per share, fractional investing is a wonderful opportunity to make certain popular stocks more accessible to smaller, retail investors. It isn't just the high-priced and popular stocks that are being traded in fractions. By mid-January 2021, six of the top 10 most active stocks were all priced under $1 per share. These 10 stocks traded a combined 2.6 billion shares or roughly 18% of the entire stock market.

Retail trading in certain names has obviously increased volatility. Over the last week or two, many "hot stocks" have experienced intraday volatility over 70%, compared to the overall market (using the S&P 500) of 1.5%. On certain days recently, these companies have made up a whopping 4% to 8% of total shares traded (per Piper Sandler Research).

Retail Traders

Once the online brokerage industry embraced commission-free trading, a new generation of investors emerged. Millennials and Gen-Z investors flocked to firms like Robinhood, with their mobile-based trading platforms that are simple to navigate and use. Wall Street, with traditional sell-side research, has lost a considerable amount of market share to newer FINTECH brokerage firms.

As retail consumers became enthralled with the stock market, they opened more than 10 million new brokerage accounts opened at firms like Fidelity, Schwab, TD Ameritrade, Robinhood, E*Trade, etc. By the summer of 2020, Robinhood was doing an average of 4.3 million trades per day, which exceeded the 3.8 million at TD Ameritrade, 1.8 million at Charles Schwab and 1.1 million at E*Trade.

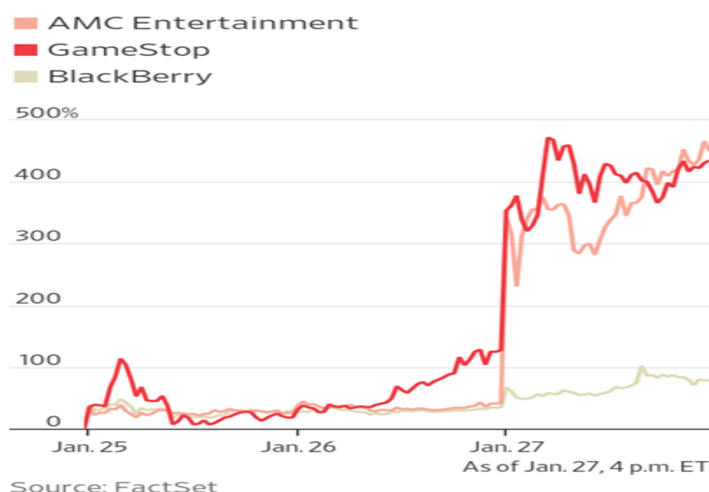
In our opinion, the mentality of the new retail investor is very much anti-Wall Street. They have a healthy distrust of "the suits" and boring index funds. Plus, these investors seem to enjoy stock picking and tend to conduct their own version of research through real-life experiences. Without the worry of annoying commissions, these investors can transact when they want on whatever device they wish. We have no idea when these volumes will slow, but we do believe that the zero-commission trading environment helped spur this new trend.

Wall Street Bets

Normally, when the Fed decides on monetary policy, it is the financial story of the day. On January 27th, 2021, the Fed decided to leave its monetary policies in place, with no announced changes to its interest rates. It stated that it is nowhere near exiting its massive support for the economy and repeated its pledge to maintain its bond buying program. Policymakers had a cautious tone, as they worried about an economic slowdown and the overall pace of the recovery.

The market yawned at the Fed's comments and instead was focused on several million traders on Reddit, known as Wall Street Bets. Across Wall Street, this group of retail traders is having a meaningful impact on a few heavily shorted stocks. Whether through equity purchases or out-of-the-money options, this group has dramatically pushed certain positions higher, to the detriment of a group of hedge funds that are short the names.
Eye-popping rallies, by companies once left for dead, are the talk of Wall Street. A war has broken out between short-selling hedge fund professionals, who are losing billions, versus individual retail investors. By using social media, this new powerhouse has piled into hot stocks and overloaded trading platforms from Robinhood to TD Ameritrade to Schwab and E*Trade.

Just take a look at this 3-day chart for Gamestop (ticker GME), AMC Entertainment (ticker AMC) and BlackBerry (ticker BB). On Wednesday the 27th of January, AMC rose +301% and GME climbed +134%. Heck, BLIAQ, the company responsible for liquidating Blockbuster's operations, somehow doubled. How crazy is the market getting? Well, there is a small Australian mining company called GME Resources. Despite trading on the Australian exchange, it has a ticker of GME (just like Gamestop). The mining company saw a +20% increase in its stock price last week, as the retail crowd mistakenly purchased the wrong GME.



The price action in these stocks is completely divorced from the fundamentals of their businesses. This can happen for a few days, maybe even weeks, but eventually the fundamentals of a business begin to drive stock price performance. In our opinion, it shows the power of the retail investor base and how individuals can still influence the market. Is this a shift away from large, institutional players? Is this the start of a bigger trend or

just a passing, but fascinating curiosity? How long will it last? Will a pullback happen? Absolutely! Stocks cannot climb +1,750% year-to-date (as GME did) without a fundamental reason.

Every good story needs a couple of main characters. During with GME's meteoric rise, then chaotic decline (and whatever happens next), the "bad guys" were initially the hedge funds that were short these names. Then, another character surprisingly emerged as another villain. On January 28th, millions of retail traders continued buying of these "hot" stocks on their preferred and favorite platform – Robinhood. When Robinhood restricted trading in GME (and some other heavily shorted names), all hell broke loose.

Robinhood released a statement that said "in light of recent volatility, we are restricting transactions for certain securities to position closing only." Then, it cited clearinghouse requirements for the trading stoppage, which "exist to protect investors and the markets." From what we can gather, it comes down to the middle man and clearinghouse capital requirements. When volatility and volumes increase, the clearinghouses for US equity and option trading (the DTC/NSCC and the OCC) can ask brokerages for additional capital. Requiring brokerages to post greater amounts of capital is not uncommon, especially during times of stress and uncertainty. Over the course of a week, Robinhood raised a total of $3.4 billion to shore up its capital base.

Robinhood said, "As a brokerage firm, we have many financial requirements, including SEC net capital obligations and clearinghouse deposits." As these Congressional hearings take place, we might see the spotlight return to PFOF, as well as how brokers and market makers earn their income.

Washington, DC

We will now have numerous hearings in DC to uncover the details and complexity of Robinhood's decision. For the Reddit community, Robinhood has quickly emerged as a villain. Because of this, politicians who are diametrically opposed on everything else are now in total agreement.

For example, Congresswoman Alexandria Ocasio-Cortez (D-NY) and Senator Ted Cruz (R-TX) agreed that Robinhood was the latest Wall Street "suit," as they criticized the trading restrictions on the retail community. Senator Elizabeth Warren (D-MA) added: "We need an SEC that has clear rules about market manipulation and then has the backbone to get in and enforce these rules." Senator Sherrod Brown (D-OH), is the incoming chair of the Senate banking committee, and she said, "People on Wall Street only care about the rules when they're the ones getting hurt...It's time for the SEC and Congress to make the economy work for everyone not just Wall Street. That's why, as incoming Chair of the Senate Banking and Housing Committee I plan to hold a hearing to do that important work."

Why are hedge funds allowed to employ 10x leverage and short a stock towards 140% of its capitalization, while the retail community gets prohibited from even buying it? Should herd mentality, momentum or mob rule be curbed? Shouldn't market forces be allowed to deal with supply and demand issues? Many are wondering why Robinhood and others placed restrictions on purchasing these stocks and have arrived at various conspiracy theories. Some believe Wall Street is protecting its favorite clients, i.e. hedge funds.

Mistakes

Robinhood was not the only online broker to restrict trading in these names, but it quickly became the poster child for how Wall Street suits and institutional players cater only to the rich, not the small, retail trader. Ironically, looking out for the little guy had been Robinhood's entire marketing persona, which got crushed by this one decision. Robinhood's stated goals of "democratizing finance" clashed with its decision to prevent the purchase of select popular stocks, exposing a hypocrisy of the global financial system. The retail trading world is now outraged at these perceived unfair trading limits.

With its enormous popularity, Robinhood's private valuation has exploded higher. Over the last year or two, we have been offered the opportunity to purchase shares in Robinhood (in our hedge fund, the Manole Fintech Fund). Every year, we do a Gen-Z financial services survey on four distinct topics (banking, brokerage, payments and digital currency). Each and every year, our research finds that Gen-Z loves Robinhood and that they are taking material market share from more established incumbants. With our interns producing some excellent research, the question remains - Why were we not enticed to purchase Robinhood?

We have exposure to the growing online brokerage industry through other firms, but Robinhood seems to have struck a chord with the market, especially with Gen-Z. Has Robinhood developed a better mousetrap in the online brokerage world? What's Robinhood's real differentiation in the brokerage marketplace? Was it a mistake for us not to acquire a stake in Robinhood?

We struggle with this, because all brokers are now offering commission-free trading. Some others even offer best execution, access to independent research, as well as hundreds of physical offices to speak with a real-life person. With its recent bad publicity prohibiting its traders from buying GME, we aren't ready to call this a error yet. But we are inclined to continue to study the growing importance of Gen-Z and their perspective on various segments of the financial service industry. This won't be our last mistake, but maybe just the latest example.

We are reminded of a few quotes from investing legend Charlie Munger, regarding his errors. Munger said, "I rub my nose in my own mistakes. I try and keep things as simple and fundamental as I can. And I like the engineering concept of a margin of a safety. I'm a very blocking-and-tackling kind of a thinker. I just try and avoid being stupid." He then added, "The single most important thing that you want to do is avoid stupid errors. Know the edge of your own competency. That's very hard to do because the human mind naturally tries to make you think you're way smarter than you are." Charlie, we couldn't agree more!

Robinhood

Robinhood now has over 13 million accounts and it opened over 3 million new accounts last year, primarily in the attractive Gen-Z and Millennials demographic. Its mobile interface has gamified (is that a word?) the stock market and excited many young investors.

By the end of last year, Robinhood's mobile-first, easy-to-use platform was prospering. Many Robinhood investors have enjoyed the +70% bounce in the S&P 500 since its late-March low, and some are now utilizing

margin loans, leveraged ETFs and options for the first time. Leverage is usually a tough lesson to learn, so we are closely watching how this turns out for many of Robinhood's accounts, 50% of which classify as "first time" investors.

Robinhood is looking to capitalize on its success to fuel an appetite for an IPO. After securing $1.3 billion in funding in 2020, the implied valuation of Robinhood rose to +$11 billion. Early indications estimate Robinhood's IPO value could exceed $20 billion, but this is moving wildly based upon the activity of the last week or two. We have heard that over 15% of Robinhood's accounts have closed due to its handling of the GME issue. Only time will tell if a $5 million, 30-second Super Bowl commercial can heal some of Robinhood's recent issues.

FINTECH Trend #2 Digital Currencies

Are digital currencies really currency? We have written on this subject in the past (click here and here) explaining that we believe a currency has to satisfy two key issues to be considered a viable currency. First, it needs to be a ***"medium of exchange"*** and one needs to be able to use it as a payment mechanism. Second, it needs to be a ***"store of value."*** In our opinion, Bitcoin fails as a payment mechanism for legitimate commercial transactions, but it is gaining traction as a store of value.

Medium of Exchange: In the month of November, according to Chain analysis, there were less than $270 million of global purchase transactions using Bitcoin. In comparison, just in the US, retail sales were nearly $550 billion. On the payment front, Visa processes close to 150 million transactions per day, which averages to roughly 1,700 transactions per second. On its payment network, it has the capability to handle 65,000 transactions per second, which represents spare capacity of nearly 40x. In comparison, how many transactions can the Bitcoin blockchain network process per second? An unimpressive 7. Why? As the number of Bitcoin users grows, it takes longer and longer for those transactions to process over its blockchain platform (by its miners). As its public blockchain gets longer, transaction times will only lengthen.

However, everyday additional merchants are mentioning the interest in accepting Bitcoin. On February 8th, 2021, Tesla's Elon Musk tweeted about accepting Bitcoin for automobile purchases. This theoretically makes sense, but we believe it will be harder to implement. Merchants simply cannot manage or handle the massive volatility of Bitcoin.

Store of Value: The store of value concept is very different from digital currency as a payment mechanism. The total market capitalization of gold is roughly $12 trillion, while the total value of Bitcoin is closer to $750 billion. Some naysayers state that Bitcoin depends on the faith of investors and nothing more. Others believe it can act as a hedge against inflation and against declines in other financial assets, like stocks, bonds or the US dollar.

Opinions on Bitcoin are changing every day. Back in 2018, the CEO of Blackrock (Larry Fink) called Bitcoin a currency "for money launderers." A year earlier, JP Morgan CEO, Jaime Dimon called Bitcoin a "fraud" and threated to fire any bank employee who dealt with the currency. Fast forward to today: Blackrock (in January

2021) enabled two of its mutual funds to purchase Bitcoin, and a JP Morgan analyst recently published that he thinks Bitcoin could rise to $146,000.

Bull vs Bear

If you want a bearish perspective on Bitcoin, the UK Financial Conduct Authority called cyrpto assets "high risk, speculative investments" where investors "should be prepared to lose all their money." If you want a bullish perspective on Bitcoin click on this presentation from Skybridge Capital. It recently launched a dedicated Bitcoin fund and they made a compelling case for the digital currency. If you want an interesting perspective of how digital currencies may or may not replace fiat currencies, click on this article recently published in Digital Transactions. This quick read discusses the likelihood of digital currencies replacing traditional payment systems and highlights Amara's Law. That thesis, from Stanford computer scientist Roy Amara, states how we tend to overestimate the impact of new technology in the short-term, but underestimate it in the long-run.

Is Bitcoin poised to climb higher, or will it crash? We simply don't know. What we do know is that we prefer to own the medium where these "assets" trade. We would compare this to the Gold Rush of the mid-1800's. Back in 1849, owning Levi Strauss made a fortune selling picks, pans and shovels to '49ers looking for gold. Back then, some would say, "There's gold in those mountains." Nowadays, there's a huge opportunity in the collection of data and information. From our perspective, we truly have no idea what the price of Bitcoin will do, except we know that it will be very volatile. As we know, volatility leads to trading, which should equate to profits for the exchanges. Speaking of exchanges, let's now discuss another upcoming FINTECH IPO.

Coinbase

Crypto currencies are hot right now, with Bitcoin increasing by over 300% in 2020 and over 45% already in 2021. To capture some of this excitement, Coinbase has filed preliminary regulatory paperwork with the SEC to become a public company.

Today, Coinbase supports trading for over 40 crypto assets on its exchange, and it provides custody services for over 90 different crypto assets. With new digital currencies created daily, the directive to list every possible compliant asset is a challenge. Unlike the stock market, where data comes from centralized exchanges like the NYSE or Nasdaq or the CME, digital currencies are traded across hundreds of different marketplaces. This results in a situation where no one price or exchange has definitive information. The race to become the de-facto reference rate for Bitcoin has emerged, with S&P Global (ticker SPGI), the manager of the S&P 500 and DJIA (Dow Jones Industrial Average), announcing its plans to launch a Bitcoin index this year. Offering transparency and standardized pricing is critical for the proper functioning of a traditional asset, as this improves liquidity and lowers costs for investors.

Creating an industry-recognized standard is potentially a very lucrative opportunity, which many firms are trying to capture. There are tons of competitors in this nascent market attempting to grab a piece of the potential enormous future growth. For example, in 2013, CoinDesk was founded, and it began to publish a Bitcoin price index and reference rate. Just a few weeks ago, Intercontinental Exchange (ticker ICE), which owns the NYSE,

permitted its Bakkt asset to merge with a SPAC and enter the public markets. In addition, in October of 2020, both Square (ticker SQ) and PayPal (ticker PYPL) enabled their millions of users to trade and store digital currencies on their mobile apps and wallets. On January 6th, 2021 Nomics showed that crypto-asset trading on PayPal set a record at $129 million. A few days later, on January 11th, trading volume was up 88% to $242 million.

The Cash app from Square has over 30 million users, and PayPal has 325 million active users. The dramatic increase in user engagement and prices helped spur revenue for both companies, but the bigger question is what will happen if Bitcoin were to suddenly drop. That's the key question in our opinion. Did these retail Bitcoin investors book a profit or are they are simply considering it a buy and hold investment?

Both PayPal and Square have plans to allow Bitcoin to be used as a payment method at their millions of their small-to-mid sized merchants. This essentially would *close-the-loop* and really advance the concept of Bitcoin as a commercial payment method. We actually think that volatility (either way) will drive transaction volumes and build top-line growth. But as you can tell from our digital currency discussion, there is still significant uncertainty in this emerging digital currency ecosystem.

FINTECH Trend #3 Payments

At the one-year mark of the Covid-19 outbreak in the US, digital payments seems to be one of the few beneficiaries of this global pandemic. For us, a recent Visa study crystalized the road to recovery. The survey found that 82% of SMB's have adopted new digital technologies and more than half of consumers are using contactless payments.

In 2019, only 19% of all credit and debit cards were equipped for contactless payments at the POS (point of sale). It is now estimated that just over half of all cards in the US will be able to use NFC (near field communication) or contactless payments by the end of this year (per the Aite Research Group). Touchless commerce will slowly begin to overtake the process of inserting your card into a reader or even handing your card over to have its mag stripe swiped by a cashier. By 2030, Aite believes that "Digital and contactless payments will be the dominant payment." We have seen this transformation happening at a slow and steady pace. It reminds us of a saying regarding trends in the payment industry: It is more of an evolution, than a revolution.

Before COVID-19 made everybody "germ paranoid", contactless payments were a convenience and an improvement to the payment process. NFC technology has been around for years, but COVID-19 has pushed both consumers and merchants to adopt contactless payments. Digital payments continue to steal market share from traditional cash transactions, and the trend does not appear to be fading. As we enter 2021, the consumer behavior trend from cash towards digital payments is only strengthening.

The use of contactless cards and mobile wallets for payments has experienced accelerated growth, especially during this global pandemic. Consumers simply want to avoid those sometimes grimy POS terminals. Recent Mercator Advisory Group data found that consumers have been switching to contactless as a new way to pay

and those who used contactless prior to the onset of the pandemic, are now using it more. The only inhibitor to growth seems to be consumers' lack of awareness, but this can be addressed with some TV advertising.

One area where we believe contactless use will flourish is public transit. Who wouldn't want to avoid the turnstiles or payment points on subways, trains and buses? While ridership is signficatanly down in cities like New York City, as commuting to work is still low, public transportation entities are making changes. The Metropolitan Transportation Authority in New York took the opportunity to upgrade and modernize its 472 subway stations and their 5,800 buses to now accept contactless, "tap-and-go" technology (called OMNY). This will quickly replace the 1990's MetroCards that all of us have used for years. Once ridership returns, these are transactions that will be occuring or "riding" on our payment rails.

Consumers & Merchants

The shopping experience is driven by consumers and merchants. Consumers demand convenience, safety and prefer not to be surcharged. Merchants need to be able to sell to any customer, anywhere around the world, with any tender type, from any payment node. Acquirers and payment processors need to re-architect their platforms to satisfy both ends.

From the consumer perspective: Visa found that because of safety concerns, consumers stated that they would prefer to use contactless payments 65% of the time. Consumers do not want to touch cash, pens and keypads, and nearly half (47%) claim they will not shop at stores that aren't contactless-enabled. Only 16% of those surveyed said that they would revert post-pandemic to their old methods of payments. Consumers are insisting that the stores they shop at are willing and able to accept digital payment, which is driving merchant adoption.

From the merchant perspective: In June of 2020, just 3 months into the pandemic, only 20% of SMB's surveyed had offered contactless payments. Now, Visa has found that 39% of its SMB's have started to accept new digital forms of payments and 74% expect consumers to continue preferring contactless payments. This unfortunately is much more complicated than simply getting a merchant to say "yes" and agree to accept digital payments. A merchant's back office needs to be ready for the change. There is a necessary investment to get the POS (point of sale) devices and software ready for contactless. There is required training for their staff and cashiers, to walk consumers through a transaction. Also, accounting systems and infrastructure needs to be properly enabled to handle various inventory issues. SMB's need to understand the steps necessary to meet security and fraud management needs, digital backend payment operations, contactless acceptance, payments via mobile devices, as well as BNPL (buy now, pay later).

The US isn't the only country adopting contactless measures. 97% of SMB's in the UAE are digitally enabled, as well as 96% of SMB's in Hong Kong. Clearly, companies are pivoting to meet a new digital-first era. Visa, Mastercard and PayPal remain the trusted engine of commerce and both are introducing new programs to assist consumers and merchants in adapting to this new environment. We talked about contactless payments in our 3rd quarter newsletter, as well as our 4th. In our opinion, it remains one of the best new technologies to come to market in years.

Are you using contactless payments when you shop in a store? Do you "tap & go" with your credit card? Are you utilizing your iPhone's mobile wallet to pay at Starbucks, Panera Bread or your local grocery store? If you aren't, don't worry. You will be, once you get comfortable with how easy and convenient it is. The same thing happened a couple of decades ago when people had been more comfortable writing paper checks. When was the last time you wrote a check at the grocery store? It took some time for debit and credit cards to become accepted, but now using them seems second nature.

We saw this Carl Richards picture recently, and it seemed to perfectly fit the trend we are seeing in contactless and digital payments. Each and every day, consumers are making a small adjustment in how they pay for goods and services. One day, it will seem normal to pay for everything with your phone.

Some payment networks are permitting and accepting QR (quick response) codes. While some are saying that this trend will fade once the global pandemic recedes, we disagree. In our opinion, both consumers and merchants will embrace and advocate the simplicity of both card-based and mobile-based technology. Contactless payments received a material lift from this global pandemic, and we believe that the migration will continue. Heck, even our parents are comfortable making mobile-based payments!

Shopping

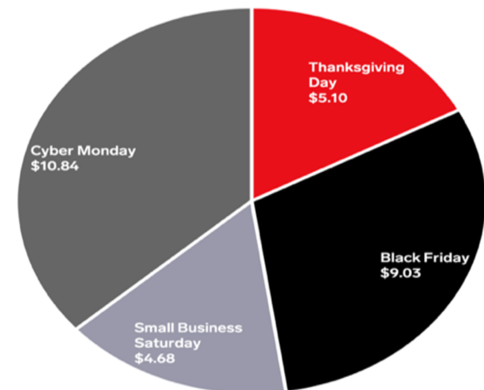
Wait a second! How does shopping become a FINTECH topic? Well, we define FINTECH as ***"anything utilizing technology to improve an established process or procedure."*** It is clear to us (and probably to you too) that COVID-19 has changed how we shop and moved many of our purchase transactions to contactless or online. In our opinion, the shift towards digital payments and eCommerce has been accelerated (by a few years) due to the global pandemic.

For us, we believe the payments industry represents the quintessential FINTECH business. Each day, digital payments (contactless, mobile-based, cards, etc) continue to steal market share from cash and paper checks. This is a secular trend that should remain for decades to come. The future of digital payments is being shaped now with the adoption of contactless payments, new digital transactions such as BOPIS (buy online, pick up in store) and decreased friction within the broader payments ecosystem.

If we analyze the spending trends from the 2020 holiday season, it becomes crystal clear to us how the eCommerce and retail environment has been altered. Sensormatic Solutions uses cameras and software to track visits to thousands of malls and shopping centers. It reported in-store foot traffic declined by (31.3%) this year. The number of in-store shoppers on Black Friday was down (37%) versus a year ago. On Super Saturday, one of the most important days of the holiday shopping season, foot traffic fell by (39.1%). According to Mastercard SpendingPulse, holiday retail sales (excluding autos and gas) were quite strong. The traditional holiday period,which runs from November 1st through December 24th, which saw a +2.4% increase versus last year. However, eCommerce sales grew by +47.2% year-over-year. If one looks at the 75 days of Christmas (from 10/11 to 12/24), retail sales grew +3.0%, whereas online sales were impressively up +49.0%. According to ACI Worldwide benchmark data, the worldwide eCommerce number of transactions grew +24% in December. Steve

Sadove is the CEO and Chairman of Saks 5th Avenue, and he said, "American consumers turned the holiday season on its head, redefining 'home for the holidays' in a uniquely 2020 way. They shopped from home for the home, leading to record e-commerce growth."

As this pie chart from Adobe Analytics shows, on Cyber Monday, US retailers pulled in a record $10.8 billion in online sales, up +15% versus 2019. This was the biggest US online shopping day ever. In addition, the total spending during 2020's holiday season exceeded the $100 billion threshold, nine days faster than last year. Although total retail sales were down on Black Friday (November 27th), it still remains the most popular day to shop, in terms of dollars spent. The third biggest day for shopping was Saturday December 12th, which became the last day where many retailers could "guarantee delivery" by Christmas.



Some interesting holiday metrics: (per Adobe & ACI)

- US consumers spent an average of $312 on holiday gifts, down (14%) versus last year
- Home furniture sales grew +16.2%, with +31.0% growth online
- Home improvement sales grew +14.1%, with +79.7% growth online
- Apparel sales fell (19.1%), but had +15.7% growth online
- Department sales declined (10.2%), but had +3.3% online growth
- Jewelry sales fell (4.3%), but had online growth of +44.6%
- Overall Retail eCommerce transactions increased +31%, with 90% growth in the gaming sector
- Travel spending fell (76%) in December

According to Adobe Analytics, US online sales between November 1st and December 22nd rose +32.4% to $172 billion. This year, the vast majority of our holiday gifts were conveniently delivered to our house. In the retail landscape, it really is a tale of two vastly different environments. The "e-economy" and eCommerce are here to stay. As small businesses suffered and many unfortunately closed, the US Census reported that 74% of new retail business created in the since April were not brick-and-mortar retailers, but more virtual storefronts.

We don't know about you, but we are very happy about not visiting our local mall.

MANOLE CAPITAL MANAGEMENT

FINTECH Trend #4 Being Nimble

On JP Morgan's recent conference call, CEO Jamie Dimon had some very interesting comments for the broader FINTECH community. He said he has told his management team to "be frightened." His message went on to say JP Morgan "should be scared shitless", about how FINTECH companies have been able to take advantage of traditional banks and financial service companies. He finished his blunt assessment by saying "We've just got to get quicker, better, faster…"

The FINTECH industry might be the "poster child" for innovation and the ability to adapt at a rapid pace. This mindset permiates throughout the ecosystem at the expense of traditional financial institutions and banks. In a world with so much rapid innovation, one's mindset needs to be open, coupled with a deep curiosity, and willingness to learn.

We strive to understand new developments and try our best not to be dismissive of ideas and innovation. When we find an investment with the potential to compound over long-term, one of the hardest things for us to do is remain patient. Of course, it comes down to valuation and risk versus return, but we try to remove all emotion from the decision. When one looks at a chart for an asset that has moved up and to the right for 5 or even 10 years, most do not think about how hard it was for a long-term investor to have held over that time period. The power of compounding growth is truly an amazing thing. Like Albert Einstein once said, "Compound interest is the eighth wonder of the world. He who understands it, earns it. He who doesn't, pays it."

Visa's Acquisition of Plaid

Speaking of one of those nimble FINTECH companies, let's spend a little bit of time on one of our private positions. In our hedge fund, the ***Manole Fintech Fund,*** we can own private FINTECH companies.

We initiated a position in Plaid back in 2018, when its implied valuation was slightly more than $2 billion. In January of 2020, Visa announced its acquisition of Plaid for $5.3 billion. Who is Plaid? Well, we have longed described Plaid as a plumber, and we actually wrote a research note entitled *"The $2 billion Sexy Plumber."* There aren't too many plumbers worth over $5 billion, so we'll try to provide some additional perspective.

Plaid connects various FINTECH applications (i.e. apps) to over 11,000 financial institutions or funding sources. Stated a little differently, Plaid is a data network that helps to power various FINTECH apps. Maybe an example will help? When a Gen-Z'er wishes to fund a Robinhood brokerage account, Plaid connects back to their Bank of America account and helps to move the funds. It works with thousands of companies like Venmo (owned by PayPal), SoFi, Betterment and it allows millions of users to connect their favorite apps to their financial accounts. We call it a plumber because it provides the necessary plumbing between apps and the critical funding source, like a bank.

To say that Visa dominates debit would be an understatement. A recent document filed by the DoJ or Department of Justice stated that Visa possessed roughly 70% of the US debit market. Visa has key, long-term

agreements and card relationships with many of the largest US banks, like JP Morgan, Wells Fargo, Bank of America, etc. This gives Visa the leading market share for processing debit transactions and volumes.

In November 2020, the US DoJ filed a lawsuit against Visa, attempting to block its acquisition of Plaid. The DoJ felt that Visa owning Plaid would increase its domination of the US debit market. Initially, Visa decided to litigate the case and tried to win its case against the DoJ. However, in January of 2021, Visa decided to terminate its acquisition of Plaid to bypass a legal battle. In its press release, Visa's Chairman and CEO Al Kelly stated: "We are confident we would have prevailed in court, as Plaid's capabilities are complementary to Visa's, not competitive," but Visa wanted "to simply move on" to avoid a lengthy and costly legal battle.

Going forward, there are multiple options Plaid can pursue. Even though Visa cannot purchase Plaid, because of that debit dominance, there might be signficant interest from other payment peers, like PayPal or Square or Fiserv's First Data. Another potential buyer, which is probably the most likely, is a SPAC or blank check company. The marketplace is flush with cash right now, with hundreds of companies looking to bring a company like Plaid to the public markets. These SPACs would be ideal partners for Plaid to partner with. Lastly, Plaid could decide to take itself public, just like Affirm just did. Affirm doubled in 1 to 2 days as a public company and Plaid would very likely receive the same warm public market reception.

Initially, we thought that Plaid would be considered "damanged goods," almost like a bride left at the altar. However, that couldn't be further from the truth. On one side of the equation (the glass half empty), we were considering marking our Plaid position back down to the pre-Visa deal price (an implied $2.3 billion valuation). On the other side of the equation (the glass half full), we could chose to leave the valuation at $5.3 billion, which was the price Visa was willing to pay for Plaid. Then, we decided to reach out to various private brokers and begin to understand what Plaid was trading for in the private market. This was eye opening.

With the excitement and buzz around private FINTECH companies right now, we believe Plaid's valuation would approach - if not materially exceed - that $5.3 billion valuation. In the private market, Plaid is currently trading at an implied valuation over $20 billion. That's 4x the price at which Visa was slated to buy it at a year ago.

BNPL or Buy Now, Pay Later

This holiday season, one of our biggest takeaway's is the explosion of BNPL (buy now, pay later) offers. Millions of US consumers have embraced this new way of paying, which evenly splits the cost of small to midsized purchases into four interest-free installments (over a week, month or quarter). Shoppers seem to be attracted to fixed payment schedules and a simplified checkout process. Are BNPL purchases taking market share from traditional credit card transactions? Are younger people simply more debt averse? Is this growth being fueled because the BNPL firms are essentially offering interest free loans, without requiring adequate background or financial checks?

There are three main companies that are providing BNPL – Affirm, Afterpay (Australian) and Klarna (Sweden). In terms of US accounts, Afterpay has 13 million, Klarna has 11 million and Affirm has 3.9 million. Afterpay (ticker APT.AX), has quadrupled since the beginning of last year and is worth over $33.7 billion. Affirm (ticker AFRM) doubled

on its first day as a public company in January 2021 and now has a market capitalization of $26 billion. Klarna raised money last year, with an implied valuation of $10.7 billion.

We saw this sign recently at a POS and we decided to take a quick picture of it. When then asked our salesperson how many of the store's transactions were occurring on Afterpay. His answer? Roughly 10% to 15%, and all were younger shoppers.

For years, merchants have complained about the high cost of credit and debit card acceptance, commonly known as MDR (merchant discount rate). However, these BNPL companies earn the vast majority of their revenue from merchants, in terms of signficantly higher MDR's (in the 4% to 6% range). If merchants believe that BNPL is driving sales that otherwise would not have occurred, they should be willing to pay these higher fees. At Express and Foot Looker, Klarna drove a +25% increase in the average order value for customers last month. Klarna and its BNPL process was the 3rd most popular way to pay at these retailers. However, if BNPL doesn't increase business and purchase volumes, merchants will quickly cease to accept these high-cost transactions. Time will tell if these BNPL trends add value and take market share from traditional credit and debit transactions.

MANOLE CAPITAL MANAGEMENT

Cliff Clavin

In the 1980's, one of our favorite TV shows was ***Cheers.*** The know-it-all postal worker was named Cliff Clavin and played by John Ratzenberger. This new segment highlights some useless information that Cliff would be proud of.

On December 1st of 1919, **the Chicago Mercantile Exchange** opened for its first day of trading. Their total volume, in 45 minutes of trading, was three lots of egg futures.

Baseball "heaven" is unfortunately getting very crowded, In 2020, seven Hall of Famer's passed away, including four of the best pitchers of all-time. In one 42-day span, five former players passed away – Tom Seaver, Lou Brock, Bob Gibson, Whitey Ford and Joe Morgan.

Then, in early 2021, baseball lost is proper all-time home run king, Hank Aaron. Hank Aaron finished his career as the all-time home run king, with 755 dingers. He also holds the MLB record for most runs batted in (RBIs) with 2,297; extra base hits at 1,477; total bases of 6,856; and an astonishing 25 All-Star appearances. His 1954 rookie card has an estimated value of $192,000.

On January 11th in 1807, **Ezra Cornell** was born. While helping Samuel F. B. Morse lay the transmission lines for his new telegraph, Cornell made the key discoveries that the wires should be insulated and strung above ground. In 1855, Cornell co-founded Western Union, the greatest growth stock of the 19th Century. Then in 1865, he founded Cornell University.

On Sunday February 7th, Super Bowl 55 or LV was played in Tampa between the Tampa Bay Bucs and the Kansas City Chiefs. This was the first time a Super Bowl was hosted by one of the two teams in the game. Another first was that Super Bowl LV was a fully automated experience. Visa, as the NFL's official payment service partner, ensured that Super Bowl LV was entirely cashless. Not only did all 22,000 fans in attendance use their mobile phone for entry, but all concession sales inside Raymond James Stadium were cashless.

MANOLE CAPITAL MANAGEMENT

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