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"Bank is No Longer a Place You Go, but a Thing You Do."

Digitize, Disintermediate (disrupt) (driverless banks), Distribution

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Despite the devastation wrought by the global COVID-19 pandemic, we believe the U.S. fintech sector was not only largely unscathed, in many ways it benefited. Consumers have increasingly embraced digital channels, venture capital funding has remained ample due to historically low interest rates and the IPO, SPAC and direct listing window has stayed open for companies looking to go public.

During 2020, many consumers went online to make payments, open bank accounts, trade stocks and buy insurance, some for the first time. We believe that social distancing has been in place long enough that the change in behavior will be a permanent change. We believe 2020 pulled forward fintech companies growth timelines and in many cases, proved out the viability of digital financial services models while stress testing their scalability and fault tolerance.

We believe community banks are being disrupted and disintermediated by fintechs and neobanks and should be “laser focused” on investing in technology rather than leveraging up via sub debt to buyback stocks and pay dividends, as has been the case recently.

We believe Covid-19 has boosted mobile payment adoption in the U.S. and led to record growth among multiple nonbank payment providers. According to S&P Global, a recent survey conducted by 451 Research found that nearly one in six consumers began using contactless payments, in the form of contactless cards or mobile payments, for the first time due to Covid-19. Furthermore, about 85% of those consumers expect to continue using contactless payments in the future.

We believe mobile payment providers are rapidly expanding their features and providing a wide range of payment and nonpayment services, increasingly positioning themselves as retail banking substitutes and it will not be long before several of these payment companies become the largest “banks” in the United States. Yes, even bigger than JP Morgan and it may not take more than five years. These mobile payment players are increasingly offering non-payment services like investment accounts and lending, which are connected to digital wallets. These services help drive user adoption and engagement, in addition to providing multiple sources of revenue.

Digitize

We believe digital wallets, sometimes referred to as payment apps, are the new bank branch. We define digital wallets as smartphone-enabled financial ecosystems that provide access to a variety of services including wealth management, insurance, instant payments, and crypto assets. We believe digital wallets are attracting tens of millions of customers and evolving from peer-to-peer payment applications into diversified platforms that offer many inexpensive consumer finance products and better access than banks do today. Today, digital wallets are beginning to penetrate the full traditional financial services stack, including brokerage and lending. Digital wallets could serve as lead generation platforms for commercial activity beyond financial products. A primary driver of the explosive growth in digital wallets is lower customer acquisition costs. As consumers have abandoned bricks & mortar for the mobile branch in their pocket, bank branches have experienced increased occupancy expenses, which hit a record high of $568,000 in 2019, according to the FDIC.

Almost everybody in the world of semiconductors knows Moore's Law: In a nutshell Gordon Moore showed in 1965 that the number of transistors on a chip had doubled every year and predicted that this trend could continue. In 1975, he reevaluated that stance and changed it to say that the historic trend might run out of steam and that the number of transistors on a chip would approximately double every two years. We believe that a somewhat similar phenomenon will drive the adoption of digitization, disintermediation and distribution of the financial system at a very rapid pace. This phenomenon is, Theodore "TP" Wright's finding "Wright's Law" and the Learning Curve (or Experience Curve) in which cumulative unit production is plotted against price per unit. Wright discovered that progress increases with experience: each percent increase in cumulative production in a given industry results in a fixed percentage improvement in production efficiency. He determined this while studying airplane manufacturing, for every doubling of airplane production the labor requirement was reduced by 10-15%. We believe that the "3Ds" will have a similar result in efficiency and costs for financial services while improving the customer experience. We believe most significant in differentiating between the success of digital wallets and traditional banks with their brick-and-mortar branches are customer acquisition costs (CACs). We believe banks will begin to focus on CACs rather than the more traditional focus, which has been the cost of deposits, and how the CACs have a significant impact on the lifetime value of a customer. As millions of Americans received "Covid relief" stimulus money via digital transfers in 2020 and again now in 2021, we believe millions of Americans are now more comfortable with digitized payments, thus moving society further along the Wright's Experience Curve.

Unsurprisingly, digital wallets are enjoying strong adoption among both consumers and merchants, taking share from other payments methods. According to Bank of America's Small Business Payments Spotlight 2019, digital wallet payments grew 41% at a compound annual rate between 2017 and 2019, while those on credit cards increased 13% and those on debit cards, in cash, and by checks declined. We believe that Covid-19 has only accelerated this phenomenon.

Disintermediate/Disrupt

We believe that Challenger/NEO banks are the first wave of disinter mediators/disrupters in the banking and financial services sector. We believe banking is no longer about the big beating the small but the fast beating the slow. Simply put, a neobank is a fintech-based bank that operates solely digitally or via a mobile app, and accomplishes most things a conventional bank can, minus the physical branches. Most neobanks do not have the overhang of expenses associated with brick-and-mortar branches, nor the staff to run these branches and a thus enjoy a generally slimmer business model. Due to the reduced expense structure, users commonly can enjoy higher interest rates and fewer fees.

Neobanks are targeting all sorts of consumer and small-business niches, from millennial investors to dentists and franchise owners. McKinsey estimates there are more than 5,000 startups worldwide offering new and traditional financial services, up from 2,000 in 2017.

While it can take years and millions in legal and other costs to launch a real bank, new plug-and-play applications enable a startup to hook up to products supplied by traditional banks and launch with little capital. These neobanks lead with an attractive customer experience via an app/digital wallet and follow-up with additional product offerings such as checking accounts and debit cards. We believe digital wallets will accommodate services beyond payments and personal lending, such as brokerage, insurance and mortgage services, many of which are provided inadequately by traditional banks in today's digital age.

We believe that consumers increasingly will manage their personal finances through digital wallets and the traditional bank branch will continue to disappear. According to S&P Global, as of Jan. 31, 2021, there were 3,585 branch closures over the last 12 months leaving 83,647 active bank and thrift branches in the U.S.

In the U.S., empowered by the Durbin Amendment, neobanks build their businesses through partnerships with community banks that provide Banking-As-A-Service (BaaS) and with infrastructure providers such as Galileo Financial Technologies. Durbin allows banks with assets below $10 billion to charge interchange fees on debit card transactions that are higher than those at larger banks. The community banks providing BaaS and neobanks share transaction fees and we believe will continue to benefit from the growth of neobanks, that is, until the neobanks obtain their own bank charters.

Using BaaS platforms provide neobanks the ability to offer big-bank products: savings accounts insured by the FDIC, checking accounts with debit cards, ATM access, credit cards, currency transactions and even paper checks.

We believe neobanks are swiftly emerging as a huge threat to traditional banks. McKinsey estimates that by 2025 up to 40% of banks' collective revenue could be at risk from new digital competition. Traditional banks are complicated businesses built on antiquated technology, with complex regulatory issues and consumers who have been forced to accept a sub-optimal user experience. We believe if neobanks can get people to bundle their financial services, they can get more of the consumers' wallet share. We believe neobanks have expanded their share of the consumer wallet in 2020 and the economics will move dramatically over the next five to ten years. We believe it changes the game.

Distribution

The most obvious benefit for neobanks when we discuss “distribution” or their addressable customer base is that a neobank has no geographic preference. In fact, many neobanks are operating on an international stage. Distribution is driven by branding online and other media venues as well as social media apps and with a keen focus on search engine optimization (SEO).

We believe Covid-19 has moved neobanks forward on the adoption curve. It is clear as we begin 2021 that we are now beyond the early adopters’ stage. According to Business Insider Intelligence, global neobanks count 39 million users today, and they expect that number to surge to 98 million by 2024, with the actual number of accounts being roughly twice the number of users.

Consumers are accustomed to 24/7 online services, whether it is ordering goods through Amazon or streaming movies on Netflix. Why should banks be any different?

We believe the 24/7 consumer demand has driven the rapid growth of neobanks that are entirely digital, “open” for business at all hours, and rely entirely on convenience, remote agents and innovative services to attract new customers. We believe traditional banks have typically been slow to adopt new technologies, but learning from neobanks and incorporating digital-first processes is no longer a bonus, it is necessary to ensure their continued relevance in the coming years.

We believe that what most traditional banks are missing is a digital, Omnichannel customer experience that modern consumers are demanding. In other words, they do not want to follow up a mobile interaction with a visit to a branch or a call to a bank call center where they can “sit” on hold forever. According to Forbes, use of mobile banking has increased from 35% to 85% in the months since the pandemic started.

We believe most traditional banks simply do not have the acumen and experience when it comes to a digital/mobile-first integrated experience and have not cracked the code of digital only verifications to provide the seamless end-to-end experience that consumers are demanding.

To paraphrase Joseph Schumpeter, a famed Austrian political economist, the essential fact of capitalism is a creative destruction where we must incessantly revolutionize the economic structure from within, destroying the old one and creating something new.

We do believe that not all community banks will suffer the same fate. There are many community banks that provide banking-as-a-service and many others that are focusing on investing in technology thus allowing them to compete with the new disrupters. The community banks that are aware of the threat have indeed benefitted from Covid-19 as it

forced them to focus on their digital offering and provided them with the impetus to increase their technology budget. We believe Covid-19 forced change, both among banking service consumers and the industry itself. Visits to physical bank branches were already an inconvenience to customers before the outbreak of Covid-19. Now that banks have been forced to recognize the need for a digital service offering, even traditional banking customers will get to experience digital banking. How well their bank performs in this aspect will determine whether a customer remains loyal to their bank following the crisis, or chooses to make the switch to a neobank that can better meet their needs.

We believe the Emerald 10 Step Research process enables Emerald to better identify banks that are aware, focused and willing to invest in technology and realize that for the banking industry, change is already here and more change is coming.