Quarterly Investment Perspective

The Future of Money

BESSEMER TRUST

Holly H. MacDonald
Chief Investment Officer

Executive Summary

- **While the role of money in society has been evolving since before written history, it has become ever more complex in recent decades, and the past year's pandemic and economic shutdowns have only accelerated its evolution. We consider the future of money from three vantage points — currency, monetary policy, and payment systems.**
- **Even as monetary policy enters uncharted territory, we do not believe bitcoin or another cryptocurrency will replace the U.S. dollar. There is scope for greater adoption of both cryptocurrencies and electronic payments more generally in the coming years. We discuss attractive investment themes across public and private companies that stand to benefit from these trends.**
- **Recent weeks have brought greater confirmation of our positive outlook for the economy and markets. The path to reopening the global economy is now clearer as vaccinations accelerate, and both monetary and fiscal stimulus are highly accommodative. Accordingly, we have recently recommended adding exposure to the more cyclical part of our platform.**

The role of money in society predates written history and has seen continual evolution in all three aspects of its utility: as a store of value, a mode of exchange, and a method of account.

Just as gold and silver eventually replaced grain and clay coins of Egyptian and other early societies, ever more complex monetary policy, electronic payments, and ledger systems have augmented modern currency frameworks in recent decades.

In the past year, as has been the case with many longer-term trends, the shock of COVID-19 and related economic shutdowns have accelerated this evolution and thrown new variables into the equation. A few data points highlighted in Exhibit 1 illustrate the interwoven nature of the various perspectives on money. Surges in money supply from the Federal Reserve have coincided with unprecedented interest in cryptocurrencies and a spate of growth in digital banking platforms. As a result, now is an opportune time to consider the future of money and its implications for our investment approach and positioning.

We examine this topic from three main vantage points: 1) the future of currency, digital and otherwise; 2) the future of monetary policy and an assessment of modern monetary theory; and 3) the future of payments systems. Our conclusions can be summarized as follows:

There is room for many types of money. The U.S. dollar's monopoly could morph into an oligopoly of the U.S. dollar, another country's currency (such as the Chinese renminbi), and cryptocurrencies over the long term.

There will be no shortage of money anytime soon! The current approach of stimulating the economy through joint fiscal and monetary policy being pursued in most developed markets can work in the near term but will eventually face a reckoning as only one half of Modern Monetary Theory (MMT) can practically be implemented.

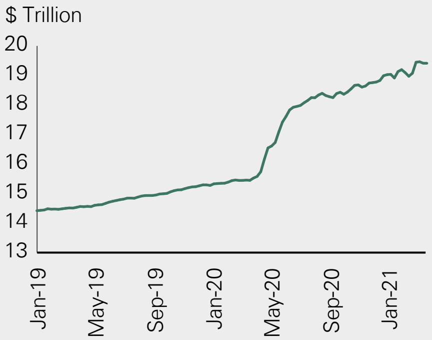
Traditional public and private markets provide ample opportunities to benefit from the acceleration in electronic payments. We find three themes most compelling: digital banking, e-commerce as an incubator of payments platforms, and integrated software approaches to payments.

Before getting into more details regarding our outlook for the future of money, we want to share some updates on our positioning and performance in the first quarter. Recent weeks have brought greater confirmation of the constructive 2021 outlook for the economy and markets that we laid out in the January issue of our Quarterly Investment Perspective, "2021 Outlook: Reopening, Recovery, and Growth." Specifically, there is a clearer path to

Exhibit 1: Bitcoin, Fintech, and Money Supply

Key Takeaway: We've seen a material growth in money supply and investments in fintech coupled with a heightened interest in cryptocurrencies.

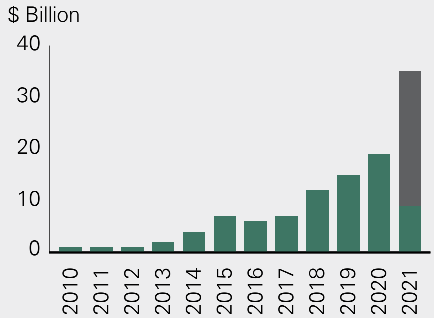
M2 Money Supply



As of January 31, 2021.

Source: Bloomberg, Federal Reserve

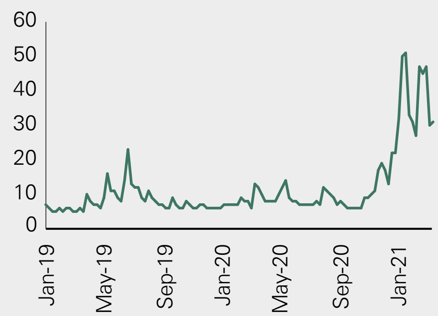
Venture Capital Investments in Fintech in the U.S.



As of March 18, 2021. Grey bar indicates expected total amount invested in fintech in 2021 assuming 2021's deal volume remains consistent through 2021. Green bars represent actual invested dollars.

Source: PitchBook

"Bitcoin" Google Searches in the U.S. Since January 2019



As of March 15, 2021. Each data point is divided by the total searches of the geography and time range it represents to compare relative popularity. The resulting numbers are then scaled on a range of 0 to 100 based on a topic's proportion to all searches on all topics.

Source: Google

reopening the global economy with COVID-19 case count and severity data improving notably, particularly in the U.S., Israel, and the U.K., while vaccine distribution is set to ramp up meaningfully in many developed nations. At the same time, near-term political uncertainty has ebbed, with the focus on large-scale fiscal stimulus, and the Fed appears determined to remain highly accommodative until a higher level of inflation is sustained. The U.S. consumer, in particular, has ample savings, and our service-oriented economy is poised to benefit as consumers gradually readopt some degree of their pre-COVID-19 lifestyles in the coming months (Exhibit 2).

While the expectation of such recovery has been part of our calculus in maintaining ample equity exposure in recent quarters, greater confirmation of a positive path forward led us to recommend clients increase allocations to equities in the first quarter. We believe the global economy is still in the early stages of a recovery, and that the Fed's accommodative orientation is likely to persist for some time. Unconventional monetary policy of near-zero interest rates, significant bond purchases, and expansionary fiscal policy will likely lead to periodic episodes of volatility, but the combination of a path for economic recovery alongside this massive stimulus is one that we think will bode well for equities overall and have recommended adding exposure to the more cyclical part of our platform. Please see our March 9 Investment Insights, "Asset Allocation: Increasing Cyclical Exposure," for more information. At the same time, we have introduced a new sustainable investing public equity strategy for those clients with an interest in this growing space. Please refer to our recent Investment Insights, "Sustainable Investing: The Evolution and Bessemer's Approach," and speak with your client advisor if either of these topics is of interest to you.

A representative Balanced Growth portfolio of 70/30 equity/bond exposure has returned nearly 2% in 2021, lagging its benchmark. The quality focus across our portfolios is the primary reason for the drag; for example, the two best-performing sectors year-to-date are energy and financials, up 19% and 12%, respectively, where we find few high-quality companies and have an overall underweight within equity portfolios. The extreme "growth" end of the spectrum, or companies with high valuations tied to expectations of future growth, have also performed well, and we have generally been sellers of these

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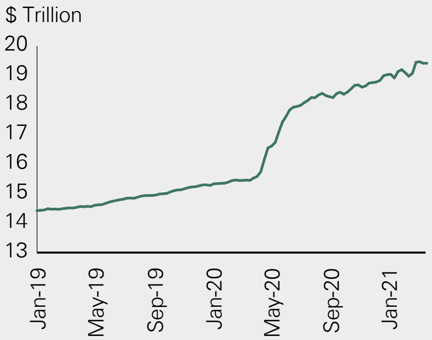

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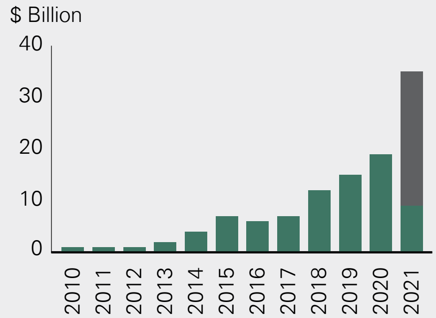

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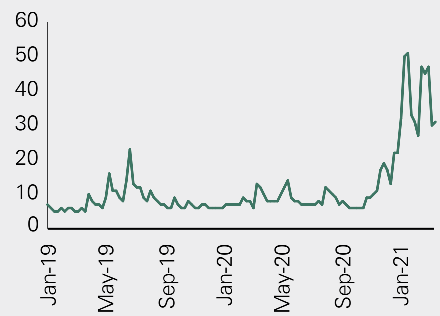

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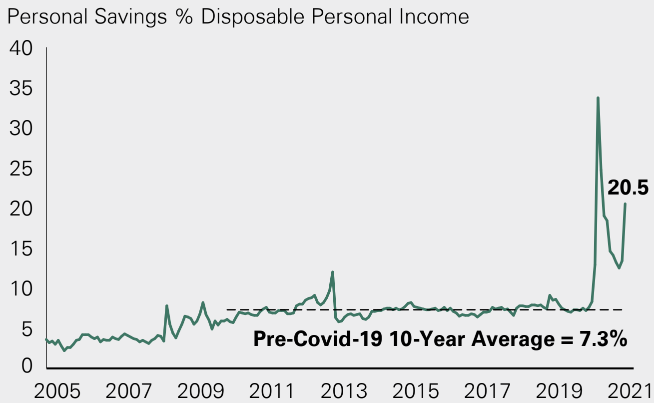
Exhibit 2: Personal Savings Rate as a Percent of Disposable Income



As of February 28, 2021.

Source: Bloomberg, U.S. Bureau of Economic Analysis

names via our private equity program. We are confident that our quality focus will pay off over long periods of time, as it did in 2020, and we believe our cyclical focus shift will be additive to performance this year.

The Future of Currency: Three's Company

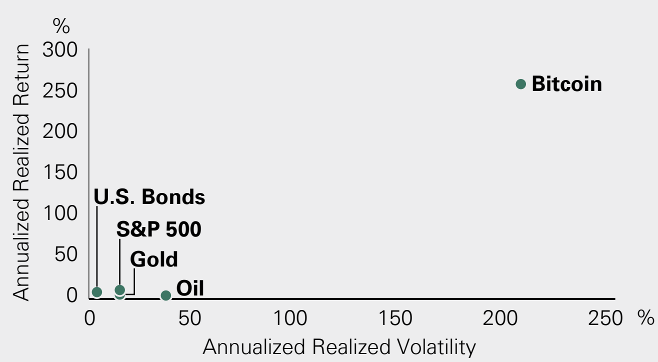
2020 lockdowns and related policies have driven several notable changes in the ways in which consumers, businesses, and investors approach currency. As noted above, bitcoin has dominated headlines more than it has since Satoshi Nakamoto introduced it to the world in October 2008, and questions regarding the U.S. dollar's dominance versus either cryptocurrencies or more traditional competitors, such as China's renminbi, have come into focus. It is worth noting, though, that good ol' hard cash has also found its fans. Results from the Fed's annual Diary of Consumer Payment Choice survey showed that, in April 2020, as lockdowns took hold, U.S. consumers' average store of value cash holdings had increased by more than $200 to $485 from October 2019 and to $530 in August 2020. The Fed analysis suggested the increase was due to pandemic uncertainty and not government benefits such as stimulus checks or unemployment insurance.[1]

In an attempt to distill the complicated topic of currency into some tangible takeaways, on page 4, we evaluate the U.S. dollar, the Chinese renminbi, and bitcoin (alongside the concept of cryptocurrencies more generally) across the three objectives that a successful currency should meet: as a store of value, as a mode of transaction, and as a ledger of accounts. Please note we use the Chinese renminbi — instead of the euro, pound sterling, or yen, for example — mostly as an illustrative example of a currency with a quite different policy system backing it that is at a much earlier point in its evolution and adoption. This is the most obvious and starkest contrast to the U.S. dollar, in our view; other viable competitors could emerge in subsequent years.

We believe that each of these currencies has notable trade-offs and conclude that all could exist alongside each other as viable alternatives in the future. We do not believe that bitcoin or another cryptocurrency will replace the U.S. dollar, but there is significant scope for greater adoption in the coming years. In this context, a small investment in bitcoin can make sense as part of a basket of other long-term growth opportunities, which can be very volatile and more akin to an option on future trends. More attractive, in our view, however,

Exhibit 3: Annualized Return and Volatility of Major Asset Classes

Key Takeaway: Bitcoin's volatility compromises its ability to be a meaningful part of a current traditional asset allocation, in our view.



As of February 28, 2020. Reflects annualized return and volatility since April 1983 for all assets except bitcoin, which is since August 2010.

Source: Bloomberg

[1] Kelsey Coyle, Laura Kim, Shaun O'Brien. "Consumer Payments and the COVID-19 Pandemic: The Second Supplement to the 2020 Findings from the Diary of Consumer Payment Choice." *Federal Reserve Bank of San Francisco: Fed Notes.* February 9, 2021.

Three Currencies, Three Measures of Success

	U.S. Dollar	Chinese Renminbi (CNY)	Bitcoin and Other Cryptocurrencies
Store of Value	The relative stability of the dollar, in contrast to various emerging market and other currencies, is a positive. The new potent mix of fiscal and monetary policy detailed in the section that follows on page 5 has triggered more questions regarding the dollar's ability to maintain its value over the long term.	While the renminbi's track record is much shorter than the dollar's in this regard, the policy mix has kept the currency stable in the past four to five years. The appeal is that the current approach is more focused on more stable monetary and fiscal policy alongside greater capital inflows, which is a positive combination for a currency's long-term valuation.	The finite supply of bitcoin, in contrast to dollars or other government-produced currencies, is its greatest draw in terms of its ability to retain its value longer term. Two factors compromise this argument: (1) bitcoin's historic volatility, notwithstanding the current surge; (2) the potential growth of acceptance of other existing or future cryptocurrencies.
Mode of Transaction	Paper currency remains somewhat efficient in some transactions (minor, daily transactions) and inefficient in others. The dollar integrates well in traditional banking systems and in newer payment platforms with few frictions. A future wild card is if the U.S. were to adopt a digital dollar. Unlike other cryptocurrencies, the U.S. government would remain a backer and intermediary for transactions in this scenario.	The renminbi is far behind the dollar in terms of global acceptance for transactions. The Bank for International Settlement's 2019 Triennial Central Bank Survey indicates that the average daily over-the-counter foreign exchange turnover totaled $5.8 trillion for the U.S. dollar and just $285 billion for the CNY. China's CNY-denominated stocks were only added to MSCI's emerging market index in 2017 after being on a review list for years. Recent government strides indicate a plan to compete with the dollar on a global basis.	There is no denying the appeal and size of addressable market of digital payments (see page 7). Bitcoin and cryptocurrencies are part of this trend and are increasingly being adopted as part of electronic payment platforms and within traditional corporate frameworks. Still, bitcoin remains highly inefficient from an energy-usage perspective. Other cryptocurrencies, such as Ethereum, are more efficient in this regard.[2]
Ledger of Accounts	The dollar itself does not provide a ledger of accounts or clear details on ownership. It does, however, integrate well with the broader financial system, which provides a ledger in many forms, with the added benefit of regulatory oversight. If one believes that civilized society and property rights will persist, and assuming one operates within these legal bounds, existing ledgers should be sufficient for most purposes.	While similar to the description of the ledger properties associated with the U.S. dollar, there is less certainty currently regarding the sanctity of China's financial system from government reproach.	The blockchain technology underlying bitcoin provides an incomparable ledger. All transactions are recorded and publicly verified, albeit anonymously. The anonymity is both a compelling and detracting characteristic: It offers security amid potential government and social instability, yet it simultaneously offers refuge for those engaged in illicit finance.

is an investment in a public or private company that will benefit from greater adoption of cryptocurrencies and, more generally, electronic payments. We discuss these opportunities in detail beginning on page 7.

We also dispute the notion that bitcoin or other cryptocurrencies in their current form, at this point in their evolution, should be viewed as a viable separate asset class along the lines of traditional stocks or bonds. In addition to the challenges noted above, the fact that cryptocurrencies cannot be held within the traditional banking system and exhibit seismic volatility alone pose significant challenges (Exhibit 3). For more information about bitcoin, please refer to our "Bitcoin and Blockchain Technology" Investment Insights. More generally, we view currencies, and gold, as tradable assets but not part of a core asset allocation. Lacking proper downside protection, income, and any identifiable potential for return of capital, these are assets that can at times be in favor and should be viewed opportunistically, with more attractive alternatives usually at hand.

[2] Sandy Kaul, Jonathan Klein, Shohebit Maini, Omid Malekan, Ioana Niculsea, Richard Webley. "Bitcoin at the Tipping Point." Citi GPS: Global Perspectives & Solutions. March 2021. Page 94.

The Future of Monetary Policy

David W. Rossmiller
Chief of Portfolio Management

Modern Monetary Theory (MMT) has aroused passionate criticism in some circles and has been excoriated by several high-profile mainstream economists ("MMT has no spending discipline and will cause hyper-inflation!"). MMT is a framework that argues that money represents a record of debt from one party to another. While the theory is unconventional, it provides an academically reasonable balance between government spending on one side and anti-inflationary controls on the other. The spending element has gained quite a lot of attention (and eye rolling) from critics. The control-oriented side of the theory — the portion that puts the MMT system into economic balance — has largely been ignored, both by the press and by many economists. For further information on MMT, please reference our A Closer Look, "Debt Dynamics and Modern Monetary Theory in a Post COVID-19 World."

The primary risk of too much fiscal spending over long periods, especially when that spending is financed by printing money instead of aiming for long-term budget balance, is inflation. The main control mechanism of MMT — timely, targeted tax policy — aims to dampen inflation when needed. When the economy is doing poorly, MMT reacts by increasing fiscal spending, and once growth begins to recover, the theory instructs that taxes should be hiked to curtail inflation.

As academic theories go, this is a reasonable balancing mechanism; that is, until we realize the decision maker tasked with making these real-time adjustments to tax policy is the U.S. Congress. Congress usually provides fiscal stimulus so late in recessions that the boost becomes "pro-cyclical," speeding up the economy just as it's already starting to recover on its own, thereby causing inflation. How can our legislators be expected to do the much more complex job of regulating inflation through timely, targeted tax-rate changes (up and down) over time? Congress seems incapable of the unity and efficiency necessary to fulfill this balancing function, and this is the glaring gap that undermines MMT as a viable policy tool in the U.S.

With that caveat, our current populist-leaning government agenda and an increasingly activist Federal Reserve have moved the U.S. toward a one-sided implementation of MMT. The *spending* side of MMT seems to be on the upswing, and the Fed is being supportive through purchases of U.S. Treasury debt (rather than through the direct money printing espoused in the theory). The controlling aspects of MMT are nowhere in sight, and the result, at worst, could be the danger both of inflation and of a waning of the U.S. dollar's reserve-currency status.

In an inflationary scenario, both corporate and municipal credit are favored because short-term cash-flow needs are likely to be met, and the gradually higher revenue stream generated through inflation becomes more than enough to pay off debt (i.e., the loan liability is fixed, while the cash-flow stream generated to pay it off inflates over time). That said,

Within fixed income, our strongest-held view is that credit, in its various taxable and tax-exempt forms, will perform well, generating attractive income with the additional possibility of positive price performance.

these inflation risks seem low because not all congressional Democrats favor this approach, and so the Senate, with only a one-vote Democratic majority, is unlikely to approve spending profligate enough to spur a long-term inflationary spiral. In addition, other factors suggest inflation will remain tame, such as non-U.S. developed-market price measures remaining weak, ongoing gains in technological efficiency, and the fact that increases in money supply have not led to higher inflation with any reliability in the last half-century.

Traditionally, government spending has been supported by dollar-for-dollar financing through tax receipts and issuance of Treasury debt. During and after the 2007–2009 financial crisis, the Fed began buying Treasury bonds and holding them on its balance sheet as part of its quantitative easing program. This was done by making a book entry, which essentially creates the money out of thin air to pay for the bonds. MMT advocates paying for fiscal programs directly with newly printed money (without Treasury debt financing), but the Fed's buying of Treasuries with printed money essentially amounts to the same. Randall Quarles, who is the Fed's vice chair for supervision, recently said, "The Treasury market is now so large that the U.S. central bank may have to continue to be involved to keep it functioning properly." Thus, the Fed justifies its continued Treasury purchases with a nod to market stability, but the result is reminiscent of MMT.

The fact that the Fed's activist interventions cannot be unwound — or even slowed — without causing high market volatility makes it likely that easy-money policies and Treasury-bond buying will be part of its policy mix for many years to come. In this environment, corporate, household, and municipal borrowers are more likely than not to meet their cash-flow requirements and pay their debt service. Within fixed income, our strongest-held view is that credit, in its various taxable and tax-exempt forms, will perform well, generating attractive income with the additional possibility of positive price performance.

Credit encompasses corporate bonds, high-yield debt, preferred securities, mortgage-backed securities, asset-backed securities, municipal bonds, and more. In our clients' portfolios, where appropriate, we sometimes mix various types of credit with thoughtful allocations to government securities to reduce the inherent volatility of some credit instruments. Managed in this careful way, credit is a theme we aim to continue exploiting on behalf of our clients, both in taxable and tax-exempt mandates, for as long as we have an activist, easy-money Fed and benevolent, MMT-influenced fiscal support of the economy.

The Future of Payments and Banking

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Kyle Butler
Senior Equity Analyst

Shaz Keshwani
Associate
Equity Analyst

There are 76,000 bank branches in the United States. There are 260 million smartphones. The future of banking is the digital wallet.

Digital wallets are becoming "neobanks," a type of direct bank that operates exclusively online without traditional physical branch networks. The platforms are typically built upon a foundation of a checking account and affiliated debit card, enabling the business to expand into other free, reduced cost, or enhanced services and functionality. Examples of established and emerging U.S. neobanks include PayPal's Venmo, Square's Cash App, Chime, Varo, Dave, and MoneyLion, among others.

The rise of the neobank has been fueled by four key drivers:

First, demographics have been supportive of a growing proportion of digitally native customers, as more than half of the U.S. population is now of the millennial generation or younger, who expect to interact digitally.

Second, neobanks offer best-in-class technology with sleek user interfaces and efficient transaction processes, leveraging artificial intelligence and machine learning. Traditional banks are often burdened by legacy systems and infrastructure as well as greater regulatory scrutiny, hampering their ability to innovate as quickly. In an example of neobanks' innovation, many have begun onboarding cryptocurrencies. PayPal allows consumers to use cryptocurrency as a funding source for payments to its 26 million merchants, while Square now includes bitcoin trading within Cash App. Decentralized finance more generally is an investment theme where we see continued growth over time; this is currently most relevant with early-stage companies but increasingly relevant more broadly (see Decentralized Finance: Digital Assets With Utility on page 9).

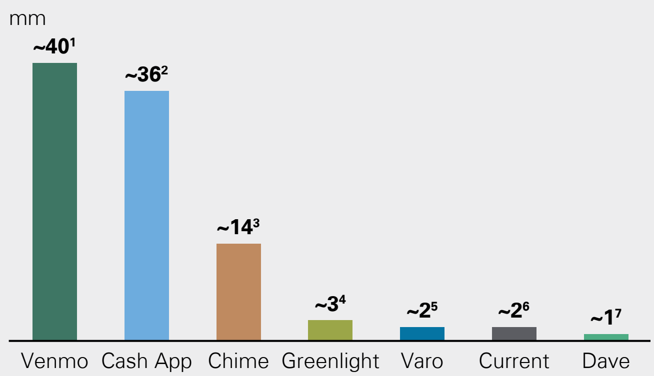
Third, lower operating costs, predominantly from having no physical footprint, allow neobanks to operate with fewer fees and offer more cost-effective solutions.

Lastly, neobanks earn higher transaction fees on debit transactions, owing to the Durbin amendment passed with the Dodd-Frank financial reform legislation in 2010, which excluded financial institutions with less than $10 billion in assets from fee caps.

Not only do neobanks serve as an incremental competitor to traditional financial institutions, but they are able to address a material societal need — financial inclusion. The FDIC estimates that 63 million U.S. adults are unbanked or underbanked. While the former have no traditional banking account, the latter often engage in some alternative financial service — such as a money order, check cashing service, pawn shop loan, payday loan, etc. — that often charges incredibly high fees or usurious interest rates. Given generally lower account balances and banking activity, traditional banks often find these potential customers unprofitable and therefore unattractive. Emerging neobanks, given their structural advantages, can offer a range of financial services to these customers with lower and fewer fees.

Exhibit 4: U.S. Neobanks Landscape

Key Takeaway: It is estimated that there are over 100 million cumulative neobank users in the U.S. (includes those with multiple digital wallets).



1 Credit Suisse estimates (CSe) for Q4 2020 Venmo annual active users of ~67m (last disclosed number of 65 million in Q3 2020 earnings call) converted to monthly active users at a 60% conversion rate.

2 CSe for Q4 2020 Cash App monthly active users (last disclosed number of "over 30 million" in Q2 2020 earnings call).

3 8 million as of February 2020 (Business Insider); 5 million as of September 2019 (Techcrunch); 3 million as of March 2019 (Chime); assumes annualized user growth of ~100% from February 2020 to December 2020.

4 Nearly 3 million "parents and kids" per discussions with company management.

5 2 million accounts as of June 2020 (Techcrunch).

6 Over 2 million users as of November 2020 (Current press release on November 24, 2020).

7 Completed rollout of Dave Banking to two-million-user waitlist in December 2020 (LinkedIn); on average one out of every two waitlisted users signed up for an account as of July 2020 (CNBC.com).

Source: Credit Suisse

Neobanks are not only a U.S. phenomenon. Globally, there are an estimated 300 neobanks with an average of five opened each month. In Asia, key players include Alipay and WeChat Pay; in Europe, Revolut and N26; and in Latin America, MercadoPago and NuBank, a portfolio company holding within our private equity program since early 2016. Importantly, while the secular trend is evident across regions, regulatory regimes vary and, in some cases, can pose constraints on neobank momentum, particularly when their growth begins to compromise traditional, often state-owned, banking institutions. Recent regulatory actions in China are an example of such intervention.

With many traditional competitors, and new neobanks emerging regularly, customer acquisition is critical. Platforms with structurally advantaged customer acquisition costs are best positioned, in our view. Venmo and Cash App, the financial services applications of PayPal and Square, respectively, leverage the virality of their free peer-to-peer networks to acquire customers cheaply. Square commented at an investor conference in December 2020 that the cost of acquiring a new transacting customer was $5 from 2017 through 2019. This compares to hundreds of dollars to acquire a credit card customer and, in many cases, north of $1,000 to acquire a retail banking customer at a traditional bank. Accordingly, both Venmo and Square each sport an annual active user base estimated to be greater than 60 million, roughly on par with JPMorgan Chase's deposit account base, taking years versus decades to accumulate.

The drivers behind the rise of the neobanks were in place well before the COVID-19 pandemic. However, the circumstances of 2020 served as a material accelerant to this trend. The world was forced to operate digitally, and many realized their financial needs were available in their pocket all along.

E-Commerce as the Payments Incubator

A virtuous cycle exists when an online marketplace is met by robust digital payments infrastructure. In many cases, the former precedes the latter. In those instances, the marketplace platform has served as an incubator for a payments solution that ultimately extends far beyond the confines of its initial host. This playbook has been adopted globally, much to the benefit of shareholders given its track record of significant value creation, often stemming from expansive growth of these once-incubated payments platforms. This theme continues to present opportunities in both developed and, particularly, emerging markets.

No discussion of the intersection between e-commerce marketplaces and payments can begin without a mention of eBay and PayPal. In 2002, eBay was processing ~$13 billion in merchandise annually. However, 60% was paid for by check or money order, and the sellers usually waited for the checks to clear before shipping their items, resulting in a transaction process that could take as long as two weeks. PayPal's technology, by contrast, allowed consumers to make and accept payments over the internet without using a credit card, with the bulk of its business coming from eBay auctions. eBay acquired PayPal for $1.5 billion that year, removing friction from the eBay buying process and supporting

Decentralized Finance: Digital Assets With Utility

The advent of cryptography and blockchain technology has led to the creation of digital currencies and networks with unique capabilities. One area that is coming into prominence is decentralized finance, which represents a new way for borrowers and lenders to interact through automated protocols.

The development of an open finance network is predicated on the establishment of a stable unit of account, or "stablecoin." A stablecoin is a type of cryptocurrency whose value is tied to an outside asset, such as the U.S. dollar or gold, typically through an algorithmic peg or collateral backing.

The next piece of infrastructure required for an open finance network is a decentralized exchange whereby participants can transfer digital assets directly without a centralized intermediary (as represented by banks in traditional finance structures).

Once these pieces are in place, borrowers can issue tokenized debt with programmable features, such as repayment schedules and collateralization. Early-use cases of open networks have included collateralized margin lending and structured loan contracts with automated enforcement.

While decentralized finance is unlikely to supplant the traditional banking system any time soon, it does provide an alternative that has potential to experience increased adoption. Networks that may be of interest to early explorers currently include lending platforms such as Aave, Compound, and Maker. All of these applications are built on the Ethereum blockchain, which serves as the base layer for many of the open finance projects currently in development. As these networks grow in usage, demand for the associated tokens and digital currencies also increases. As such, one possible scenario is that additional value will accrue to the Ethereum network as well as the open finance networks successfully built upon it.

the virtuous cycle of marketplace network effects. While eBay continued to scale its auction platform, PayPal expanded to other merchants and has participated directly in the large and growing addressable market of online commerce. Today, the host, eBay, commands a nearly $50 billion enterprise value, while PayPal's stands at nearly $350 billion (Exhibit 5).

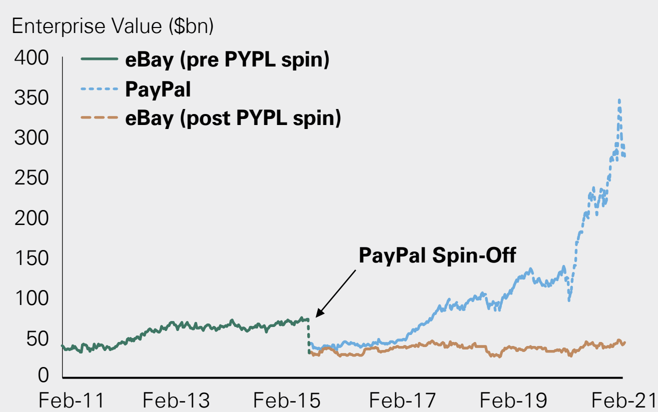
A similar journey was underway in China at about the same time. In 2003, Alibaba launched its business-to-consumer marketplace, Taobao. However, growth was constrained by a lack of trust between buyers and sellers. Alibaba responded by creating Alipay in 2004 to serve as an escrow agent. While this solution supported the marketplace flywheel, Alibaba expanded Alipay's reach. In 2011, Alipay launched QR codes to address offline commerce. In 2013, the company created Yu'ebao, a feature allowing users to invest their remaining Alipay balances. Today, the platform, with nearly one billion users, extends to lending, wealth management, and insurance products, well beyond its core online and offline payments solution.

These two case studies and their playbooks have been exported globally and underpin two emerging markets opportunities, MercadoLibre and Sea Limited.

In Latin America, MercadoLibre was launched in 1999 into a heavily unbanked Latin American population. To solve for this friction, a payments solution, MercadoPago, was rolled out from 2003 to 2007 across the company's geographies. By 2012, one-third of the merchandise sold on the platform was processed by MercadoPago. This metric stands at nearly 100% today. As outlined in the incubation playbook, the core marketplace business is a launchpad for future addressable market expansion. In 2015, MercadoLibre launched mobile

Exhibit 5: eBay vs. PayPal Enterprise Value Over Time

Key Takeaway: Following eBay's spin-off of PayPal in 2015, PayPal has seen its enterprise value grow dramatically, now ~7x that of eBay.



As of February 2021.

Source: Bloomberg

point-of-sale solutions for offline commerce. Today, more than half of the ~$50 billion of volume transacted through MercadoPago is generated outside of the MercadoLibre marketplace. The payments platform now offers a suite of products including seller and consumer loans, a digital wallet, and asset management products.

In Southeast Asia, Sea Limited is rapidly scaling its e-commerce marketplace business, Shopee. With a population of 570 million and GDP expected to reach nearly $5 trillion by 2025, the six largest countries in Southeast Asia represent one of the world's largest and fastest-growing regions. Online retail was 6% of total retail sales in the region in 2019 versus around 28% in China and around 15% in the U.S., according to Euromonitor, with adoption rates accelerating due to the COVID-19 pandemic. While this combination offers tremendous potential, more than 70% of the adult population is either unbanked or underbanked, with limited access to financial services. Consistent with the playbook, Sea created SeaMoney, a digital financial services provider offering digital wallet services, payment processing, credit-related digital financial offers, and other financial products. In the third quarter of 2020, Sea's mobile wallet processed more than $2 billion of payment volume, capturing more than 30% of gross orders on its marketplace in October. Sea is executing the global playbook and stands to benefit from the valuable intersection of e-commerce and payments.

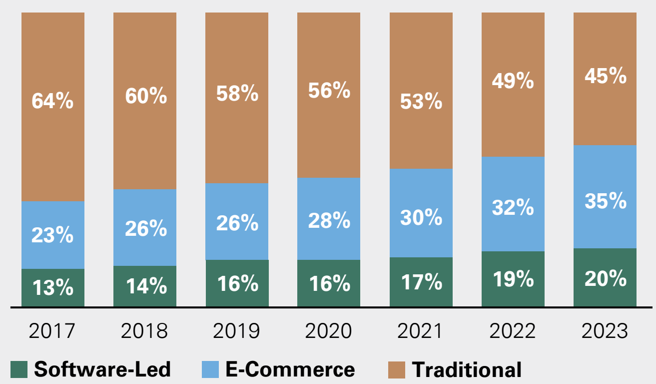
History has provided a guide to how leading online marketplaces can incubate payments solutions that not only grease the flywheel of marketplace network effects, but then independently scale to tremendous heights. For the established, the playbook remains unfinished; for the emerging, it serves as a clear guide to significant value creation.

Integrated Software Payments

Businesses today must accept electronic payments to be competitive. Furthermore, software is becoming critical in operating and growing any business. These two fundamental imperatives are converging, with integrated payments and software solutions emerging as the new standard. And with this new standard, merchants of any size can quickly and easily enter the electronic payments ecosystem.

Exhibit 6: Projected Payments Mix Through 2023

Key Takeaway: Software-led and e-commerce payments companies are expected to grow at 15% per year through 2023, taking market share from legacy payments companies.



As of 2020.

Source: Credit Suisse

This theme is manifesting itself across three main verticals: (1) differentiated payments models that authorize micromerchant card acceptance, (2) software companies that incorporate payments flows into their solutions, and (3) e-commerce enablement platforms that empower merchants to sell goods and services online (Exhibit 6).

Micromerchants had long been left out of the electronic payments ecosystem, owing to their smaller size and higher risk profile. Multiweek application processes at traditional banks left many with their merchant account applications denied. Technology changed the paradigm. Merchants can sign up for Square in under five minutes, with over 90% of Square's merchants onboarding without any human interaction. Square diversifies risk across its merchant base and leverages the breadth of its transaction data to mitigate excessive underwriting risks. Alongside this core payments solution, Square offers software tools to help merchants operate and grow their businesses. This deeply engrained relationship with the merchant and detailed transaction visibility allow payments enablers, such as Square, to offer other financial services, such as working capital loans that would otherwise be inaccessible or unaffordable from traditional providers.

Software is a critical part of helping businesses operate and grow today. An increasing number of software companies are realizing that incorporating payments functionality directly into their platforms is a win-win for them and their merchant customers. For merchants, it provides a more efficient means of electronic payments acceptance. For the software provider, it increases revenue by tapping into payments flows and reduces churn by making the relationship stickier, resulting in higher customer lifetime value. One example is Toast, a restaurant management system and point-of-sale solution that helps restaurants manage inventory, employees, payroll, and online ordering. Critically, it also includes payments acceptance for its restaurants.

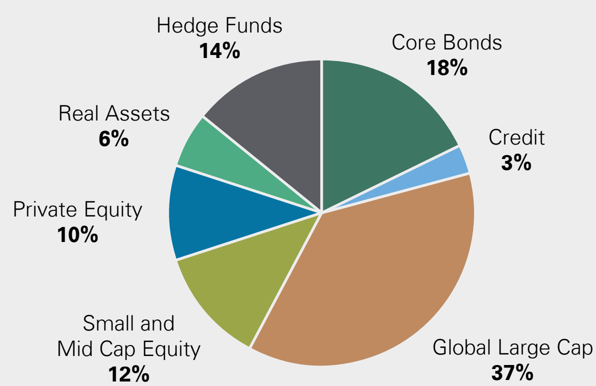
Merchants are increasingly looking to build online businesses. COVID-19 accelerated this trend. Software companies that enable e-commerce, such as Shopify, have lowered the barrier for businesses to sell products online. Shopify, originally funded by Bessemer Venture Partners in 2010, started as a full-suite online store builder for small merchants. The company then partnered with Stripe, another portfolio company funded by two venture capital funds within our private equity program beginning in 2012, to integrate electronic payments and enable secure transactions for Shopify-powered merchants. Mirakl, a portfolio company held within our private equity program since 2015, offers a similar solution that empowers larger enterprise-scale brands to develop online marketplaces. These deeply engrained merchant relationships provide a platform for these enablers to offer additional financial services, such as financing solutions like Shopify Capital, solving yet another issue for merchants and supporting their growth.

No matter the customer acquisition strategy — leading with payments, software, or e-commerce — the intersection of payments and software is a significant secular theme that is reducing friction and dramatically increasing electronic payments acceptance for merchants. Old businesses can transform, new businesses can emerge, and merchants of any size can succeed.

Conclusion

The future of money is relevant both to our overall approach to investing and to the specific opportunity set of public and private companies in which we invest. The significant jump in money supply is likely to support risk assets near term, in our view, and is one of the reasons we have reduced our exposure to bonds in favor of equities (Exhibit 7). Money supply growth and potential higher-than-expected inflation are factors that can impede the economy over the long term if not held in check, and so they remain squarely on our radar in that respect as well. Cyptocurrencies and other competitors to the dollar can gain greater acceptance over time, but we do not believe the dollar will be displaced, and currency investments should be at most a small part of a portfolio's allocation, in our view. Companies standing to benefit from trends in digital banking, e-commerce, and software payments platforms, meanwhile, remain a compelling way to position for the future of money as we strive to help our clients meet their long-term financial goals.

Exhibit 7: Bessemer Portfolio Positioning



Positioning as of March 31, 2021. This model displays Bessemer's Balanced Growth with Hedge Funds and Private Assets target portfolio allocation guidelines. Each client situation is unique and may be subject to special circumstances, including but not limited to greater or less risk tolerance, classes, and concentrations of assets not managed by Bessemer, and investment limitations imposed under applicable governing documents and other limitations that may require adjustments to the suggested allocations. Model asset allocation guidelines may be adjusted from time to time on the basis of the foregoing or other factors. Alternative investments, including Bessemer private equity, real assets, and hedge funds of funds, are not suitable for all clients and are available only to qualified investors.

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