

FINTECH AND THE FUTURE OF FINANCE

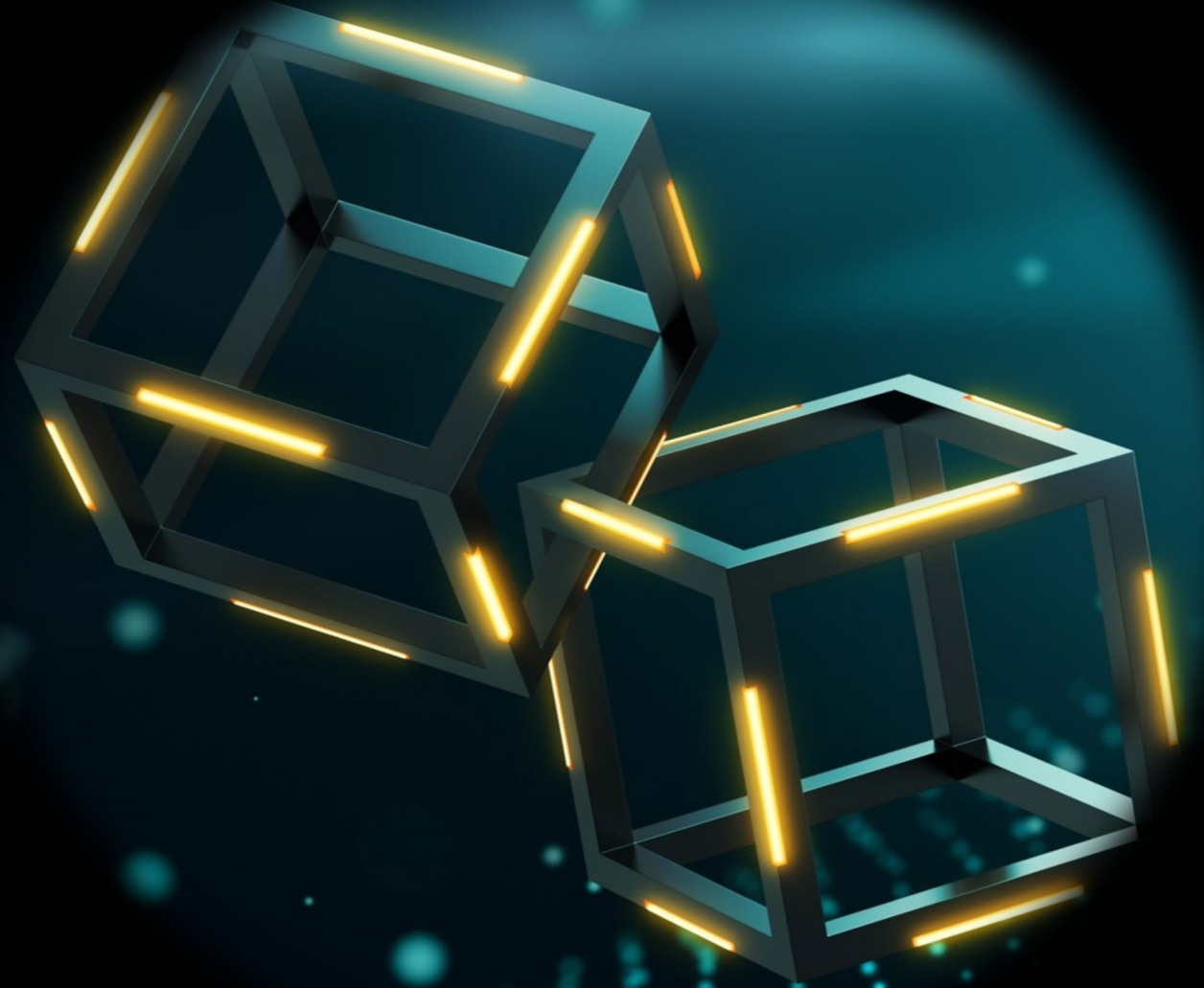
FMA Student Virtual Seminar 5/14/2020

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VOLUME 20

Digital disruption is ubiquitous and has changed both the way businesses operate and the way people live. Disruption caused by innovation affects firms across multiple industries, from financial services to industrial firms, business processes to payment systems, manufacturing to supply chains. Further, scholars hear more and more about artificial intelligence (AI), big data, machine learning, blockchain, and fintech as examples of contemporary manifestations of disruptive technology that will profoundly influence disciplines beyond business and finance, such as law, health care and government. Global extensions of these technologies and innovations challenge the efficacy and boundaries of law. Indeed, disruptive innovations are potentially change the way we consider the future as humans versus some super artificial intelligence.

This volume contains fourteen articles split across four parts, exploring the debate around the topics of fintech, AI, blockchain, and cryptocurrency. Featuring a cast of global contributors, this is an unmissable volume exploring the most current research on digital innovation in the financial and business worlds.

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DISRUPTIVE INNOVATION IN
BUSINESS AND FINANCE IN
THE DIGITAL WORLD

Edited by M. J. Jay Choi,
and Bora Ozkan

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DISRUPTION IS UNIVERSAL



Disruption has changed both the way business operate and way people live



Innovations effect firms across multiple industries



More research being done on artificial intelligence (AI), big data, machine learning (ML), blockchain, fintech...



Today we will talk about AI, Fintech and Blockchain

ARTIFICIAL INTELLIGENCE (AI)



**AI roots go back to 1956 Dartmouth
College workshop on “thinking machines”**



**Today broad range of industries use AI-
based analysis**

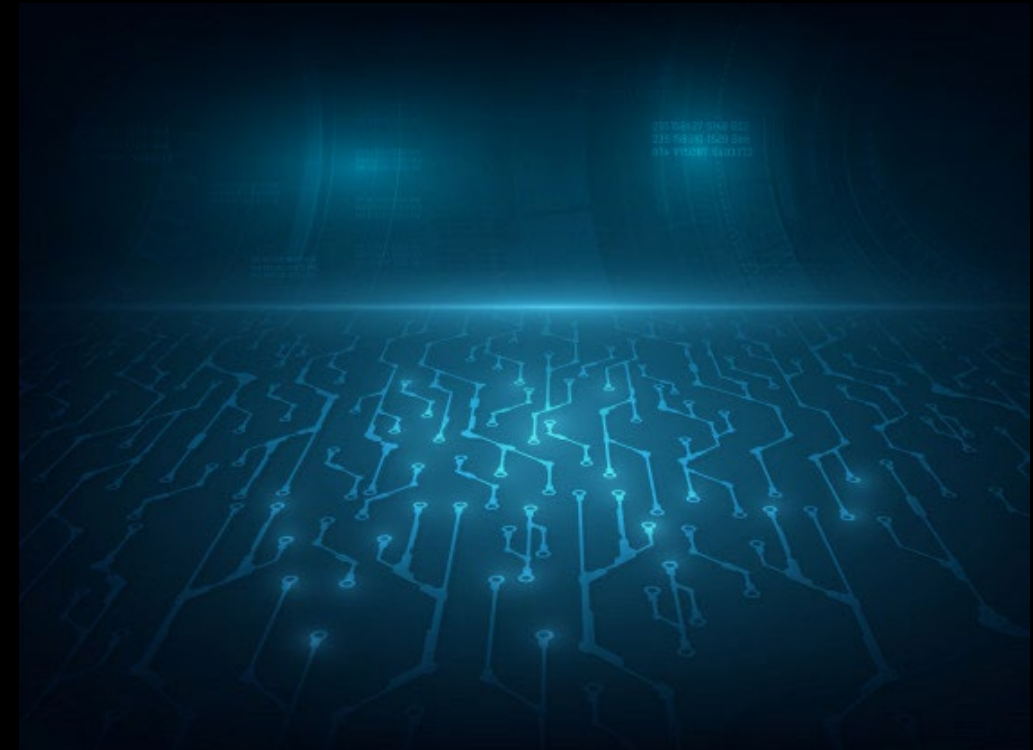
AI is Spreading Beyond Technology Sector

Healthcare

Robotics and Autonomous
Vehicles

NFL

AI startups



AI is Spreading Beyond Technology Sector

Apple and Google – Tracking Device

Demand for AI is increasing

Supply Chain

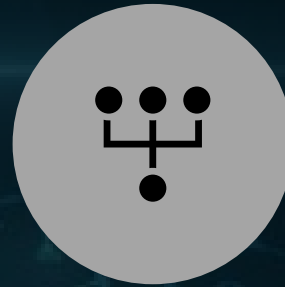
Financial services -
Investments



COMPETITIVE ADVANTAGE



85% of companies think AI will offer competitive advantage



20% is “extensively” employing it according to MIT Sloan Management Review and the Boston Consulting Group



Many will chose independent AI vendors



Global fight between China and U.S.

AI ECONOMIC VALUE

010 156427 0160 000
015 153300 1520 000
016 153000 1500 110

Ballooning

Potential economic-value creation from AI in the next 20 years
\$trn

Management



Marketing



Operations



Source: McKinsey

TRAINING AND EDUCATION



According to a survey by Accenture, 67% of workers believe they must develop their skills to work with intelligent machines.



AT&T spent \$1 billion on a training effort called Future Ready after its own research showed only about half of its employees had the technical skills it needed



Boing spent \$100 million towards employee education, Disney launched a \$50 million education program and Accenture has committed \$200 million over the next three years

THE WORKPLACE OF THE FUTURE



Firms of all types are harnessing AI to forecast demand, hire workers and deal with customers.



Companies spent \$22bn in 2017 on AI-related M&A - 26x more than 2015



The McKinsey Global Institute: Applying AI to marketing, sales and supply chains could create economic value of \$2.7trn over the next 20 years



Anxiety? Many fear it could destroy jobs faster than it creates



Fintech will have the biggest impact on people. Financial-services professionals are going to have a very different background, mind-set and skill sets.”

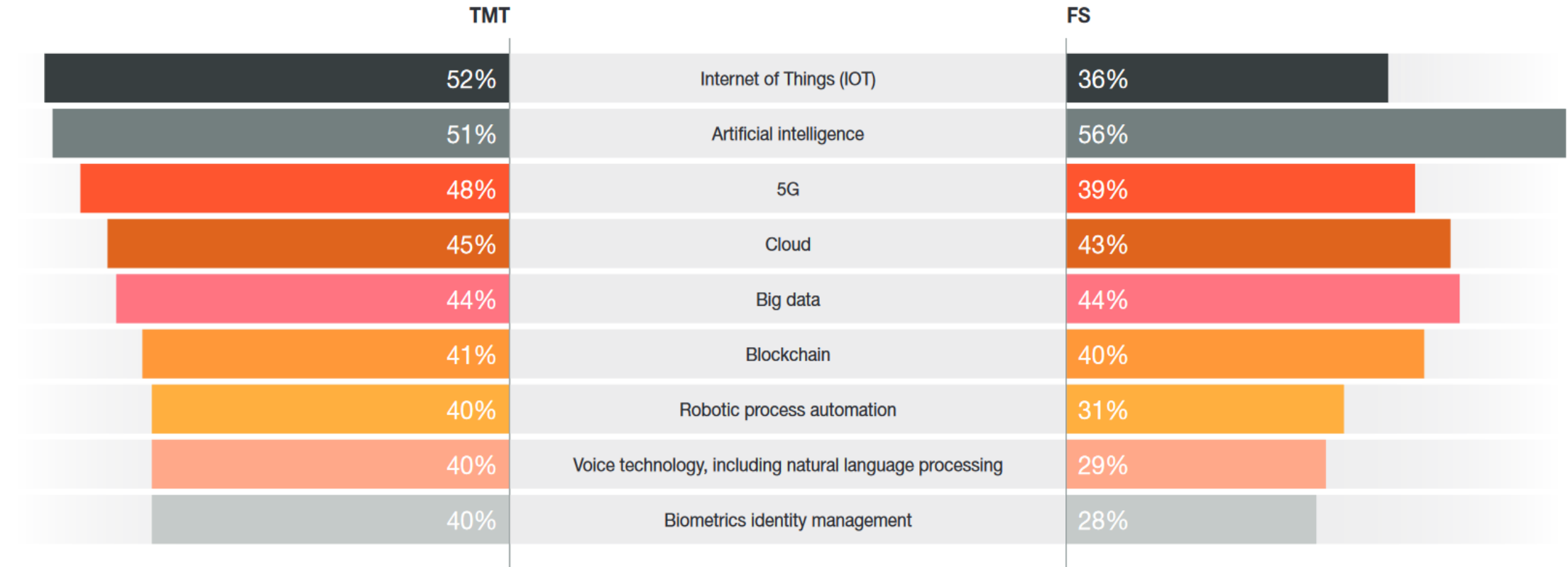
Bhushan Sethi
Joint Global Leader
People and Organisation
PwC US

WORKFORCE TRANSFORMATION

- Priorities
- Challenges

Exhibit 1: Technologies leaders think will drive change

In your opinion, which technologies are set to transform the way financial services are delivered within the next two years?



Base: All TMT respondents (260), Don't know (1%); all FS respondents (248), Don't know (0%)

Source: PwC Global Fintech Survey 2019

U.S. FINTECH INDUSTRY



Funding pouring into
startups



Established fintech
companies evaluating
their strategies



Incumbents institutions
stepping up technological
developments



The word “disruption” no
longer dominates fintech
talks



Partnerships between tech
companies and traditional
financial institutions

OUTLOOK AND
RECENT TRENDS

Insurance technology – Insurtech

Digital investment management

Digital lending

Mobile payments

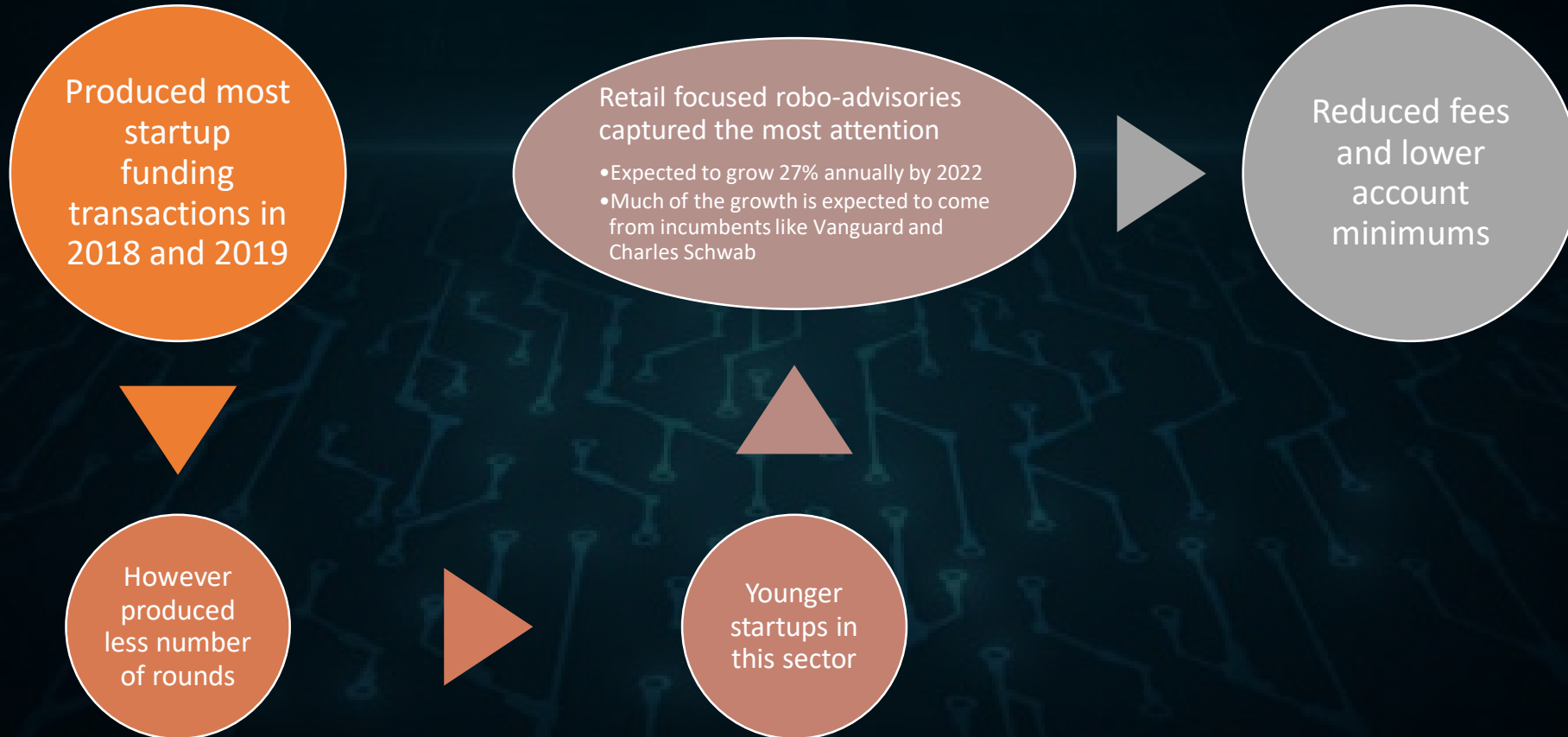
Digital banking

Insurtech

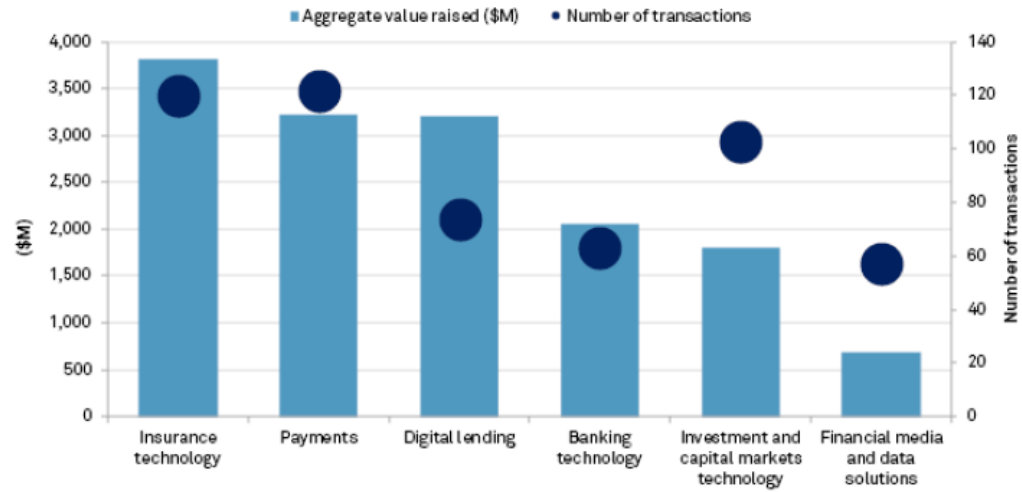
- According to S&P Global Market Intelligence report, more than \$3.8B flowed into the sector in 2019
- Digital agencies attracted more interest. In terms of \$ funding, almost \$2B raised by 5 full service companies
- Startups started working with incumbents instead of trying to replace them
- Innovation areas: policy design, user experience and data analysis



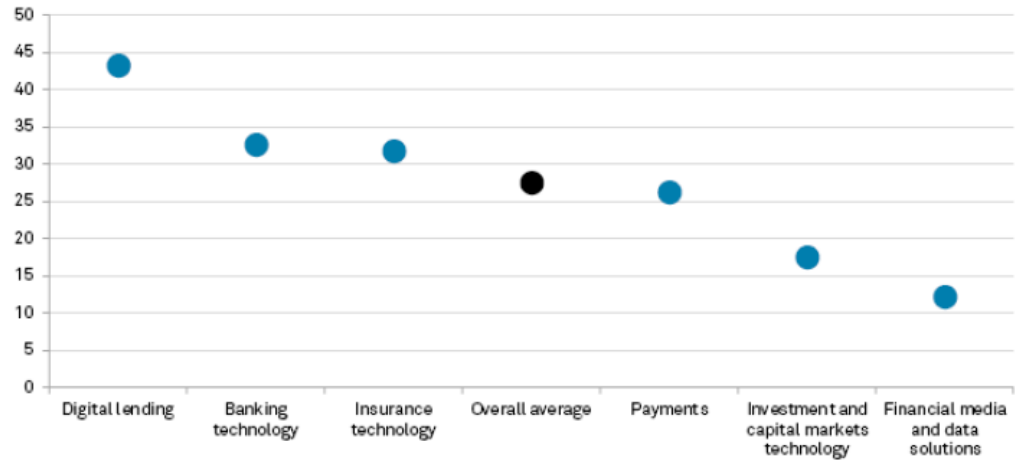
Digital Investment Management



US fintech investments in 2019



Average value per transaction (\$M)



Data compiled Jan. 13, 2020

Includes private placements for private, U.S.-based fintech companies, as defined by S&P Global Market Intelligence. Excludes debt transactions.

Source: S&P Global Market Intelligence

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Digital Lending



Robust demand for their services



12 funding rounds of at least \$100 million



Originations grew at 72% CAGR last 5 years. S&P expects CAGR of 14.3% between 2019 - 2023



Digital lenders increased scope of their activities

- Student loan refinancing
- Personal loans
- Mortgages
- Business loans
- Wealth management

Largest digital lender transactions of 2019

Target Name (dba)	Transaction amount (\$M)	Customer focus	Business model
Social Finance Inc. (SoFi)	539	Student; consumer	Leading digital student loan refinancing company expanding to become holistic consumer financial services provider
Fundbox Inc.	326	Commercial	Working capital financing platform for commercial clients
Affirm Inc.	300	Consumer	Consumer point-of-sale lender
Pollen Inc. (C2FO)	200	Commercial	Working capital financing platform for commercial clients
Branch International Inc.	170	Consumer	Emerging markets-focused consumer lending
Applied Data Finance LLC	163	Consumer	Focus on providing credit to underbanked populations
Better Mortgage Corp.	160	Consumer	Online mortgage lender
Lendbuzz Funding LLC	150	Consumer	Car loans for expats and international students who may not have established credit in country of residence
Uplift Inc.	123	Consumer	Consumer point-of-sale lender focused on travel
InVenture Capital Corp. (Tala)	110	Consumer	Emerging markets-focused consumer lending
Figure Technologies Inc.	103	Consumer	Digital consumer lending built on blockchain-based back-end architecture
BlueVine Capital Inc.	103	Commercial	Small business financing company looking to expand into holistic small business banking provider

Data compiled Feb. 13, 2020.

Includes private placements with transaction values of at least \$100 million for private U.S.-based companies classified by S&P Global Market Intelligence as digital lenders.

Sources: S&P Global Market Intelligence; company websites

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Mobile Payments



Mobile payment applications serve two functions;

Storage

Transfer of payments – P2P



Significant innovation in this area - importance of “interoperability”

Paypal integrating its wallet Google Pay, Samsung Pay and Facebook Messenger

Paypal, Venmo, and Square’s Cash App offers physical payment cards



The Zelle Network platform was launched in 2017

Member banks offer real-time P2P service

Payment volume of \$160B since Q1 2017 vs. \$77.8B by Venmo

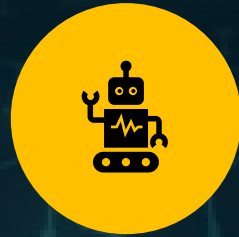
Digital Banking



CHIME FINANCIAL INC
RAISED THE MOST CAPITAL



OTHER FINTECH COMPANIES
ARE MOVING AGGRESSIVELY
INTO BANKING



IMPROVEMENTS IN
AUTOMATION AND AI CAN
HELP SUPPLEMENT THESE
SERVICES



NO MORE NUMEROUS
BRICK-AND-MORTER
BRANCHES, MOSTLY DIGITAL
BANKING



HIGH-PROFILE AND
CHALLENGING
EXPERIMENTS ARE BEING
DONE IN BLOCKCHAIN

US Financial services blockchain market report by S&P Global



- Blockchain receives a lot of hype – most projects announced by U.S. financial services companies are still in pilot phase
- The projects banks work on attract a lot of attention – earnings calls
- Visa and Broadridge appear more engaged on the topic
- Nasdaq has embraced the technology. BNY has a blockchain system in production
- Most are in B2B area and mostly private blockchains

Blockchain is bigger & closer than you think...

Payments systems are being made faster and more secure as crypto is more widely accepted...

...and leading enterprises are incorporating blockchain into their **operations and product offerings**



The social media giant will start their efforts by implementing a **stablecoin exchange network** via WhatsApp in India



Microsoft implemented blockchain to streamline Xbox royalty payment to game platform owners, publishers, and distributors



World Wire is launched for payment messaging and across 72 countries, 48 currencies and with 44 banks using the Stellar protocol



Boeing is invested in an unmanned vehicle company using blockchain to track vehicles, allocate flight corridor and support inspection



Square announces blockchain team in order to launch **Square Crypto** and embed blockchain in the Cash App



Amazon Web Services launched products to increase blockchain system speed to deployment

COVID-19 Will Fuel Innovation



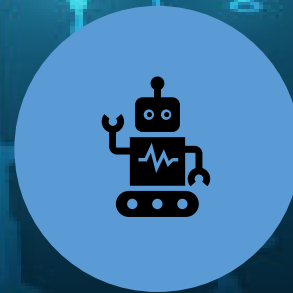
COVID-19 has changed both the way business operate and way people live



Innovations effect firms across multiple industries



Businesses are trying to reduce cost and redesign/reinvent themselves



Response to the pandemic could force companies to use more automation.

Could COVID-19 Be a Catalyst for Fintech?

- Fintech is not immune to challenges
- Fintech companies as main drivers of digitalization
- Consumers will demand more digital banking
- Vanguard partnership with AntFinancial

How About Blockchain in 2020?

- Pragmatic governance models will emerge
- Interoperability will come one step closer to reality
- Adjacent technologies will combine with blockchain to create a next level advantage
- Some use cases
- Media & Entertainment

Digital Currency



- China's central bank is one step closer to issuing its digital currency
- Sweden is now testing its digital version of cash, the e-krona
- We just glimpsed how a "digital dollar" might work, thanks to coronavirus



Q&A

Thank you for attending