FUTURE OF PAYMENTS AND THE MILLENNIAL IMPACT

2017 TASSCUBO Winter Meeting

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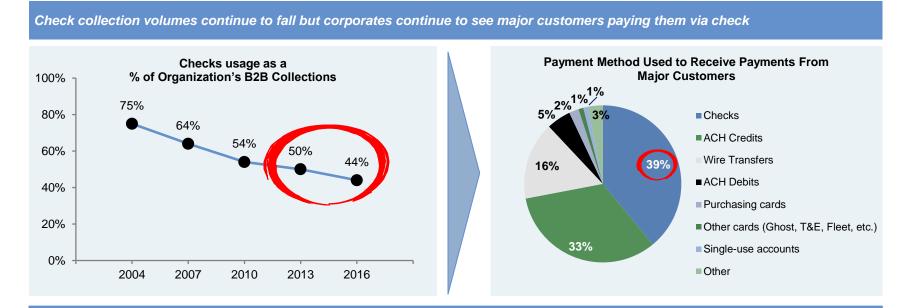
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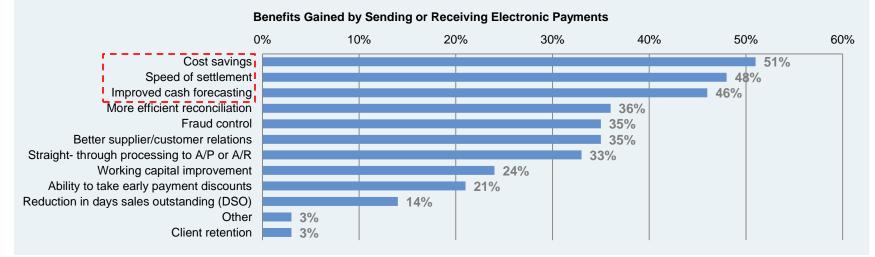
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Receivables: Range of benefits continue to drive down check collections



The decrease in overall check collection volumes largely stems from the wider appeal of electronic channels: Cost, Timeliness, and Quality of information



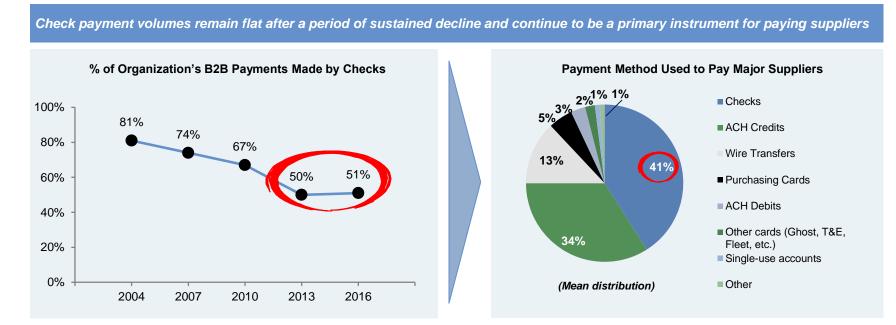
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Source: Association for Financial Professional, 2016 Electronic Payment Survey, Oct 2016

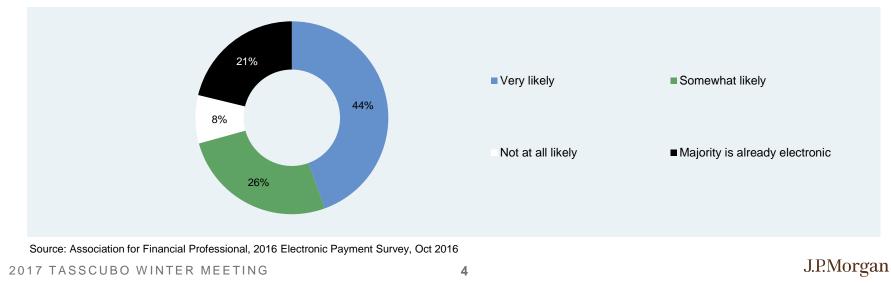
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Payments: Continued focus on electrification with limited results

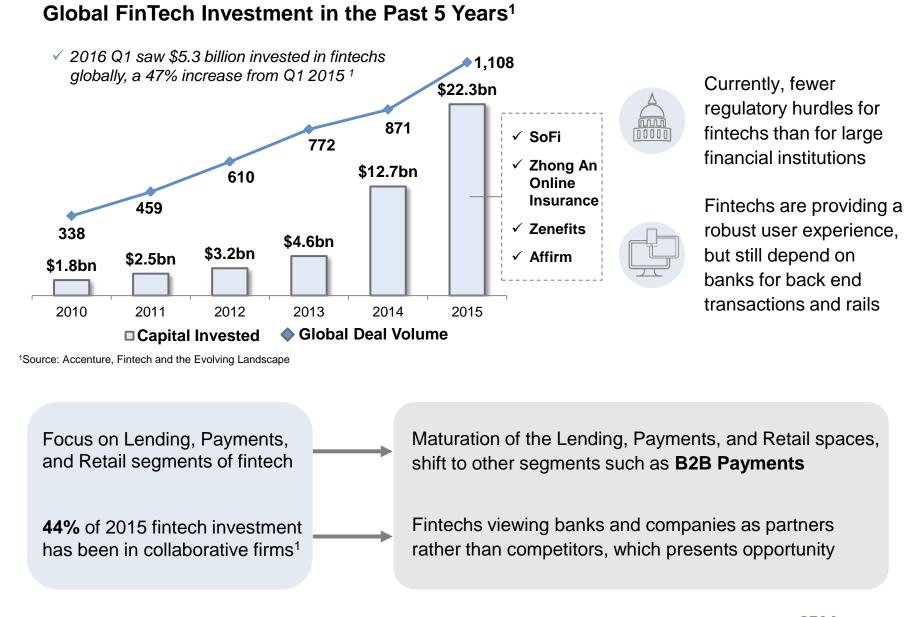


Although check payment volumes continue to be quite significant, treasurers are confident that the majority of supplier payments can be migrated to electronic alternatives over the next three years



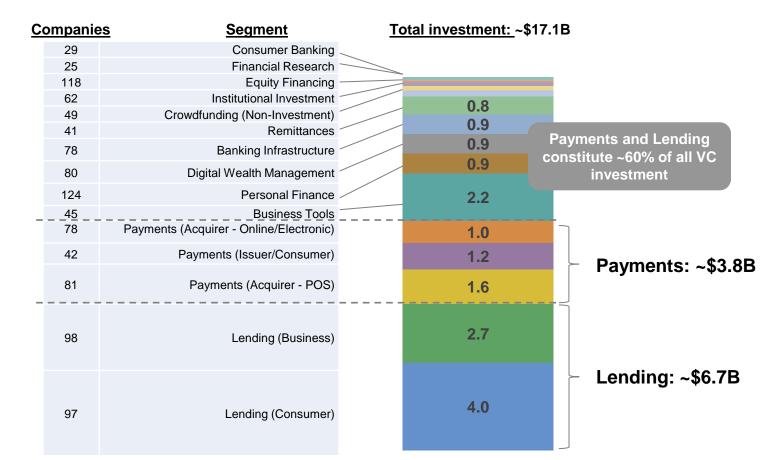
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The Fintech ecosystem has been rapidly expanding over the past 2 years



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Fintech disruption and collaboration span all areas of the financial industry



VC FinTech Financing Activity by Product Segment

Source: Venture Scanner (multi-year information not reconciled with CB insights annual fund raising data) Note: Not exhaustive. Data does not include Crypto companies; estimated to have ~\$0.3B by 107 startups

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Federal Reserve Faster Payments

Stakeholder Engagement	Faster Payments	Payment Security	Payment Efficiency	Enhanced Federa Reserve Services
 500+ members engaging on Faster Payments and Secure Payments Task Forces Implementation of ISO 20022 for wire transfer and ACH The Fed has created many ways for stakeholders to stay informed and offer feedback 	 B2B, B2P, P2P, and P2B payments all in scope Federal Reserve is exploring options to Evolve ACH Evolve ATM/PIN debit infrastructure Direct clearing over public IP networks Build new infrastructure for retain payments Faster Payments Task Force established in 2015 	 Reduce fraud risk and advance the safety, security, and resiliency of the payment system Payment Identity Management work group is addressing the lack of universally accepted methods of establishing and confirming the identity of payers and payees Secure Payments Task Force focusing on data protection, information sharing, law coordination 	 Attain better end-to-end efficiency for domestic and international payments Remittance Coalition creating B2B directory, which seeks to allow businesses to make more electronic payments to vendors, suppliers, and other payees ISO 20022 as a standard 	 Hours of the National Settlement Service were expanded in 2015 FedACH SameDay Service will support implementation of a universal Same Day Additional Section (2016)

J.P. Morgan's Engagement

✓ J.P. Morgan is a member of the Federal Reserve Faster Payments Task Force as of May 2016

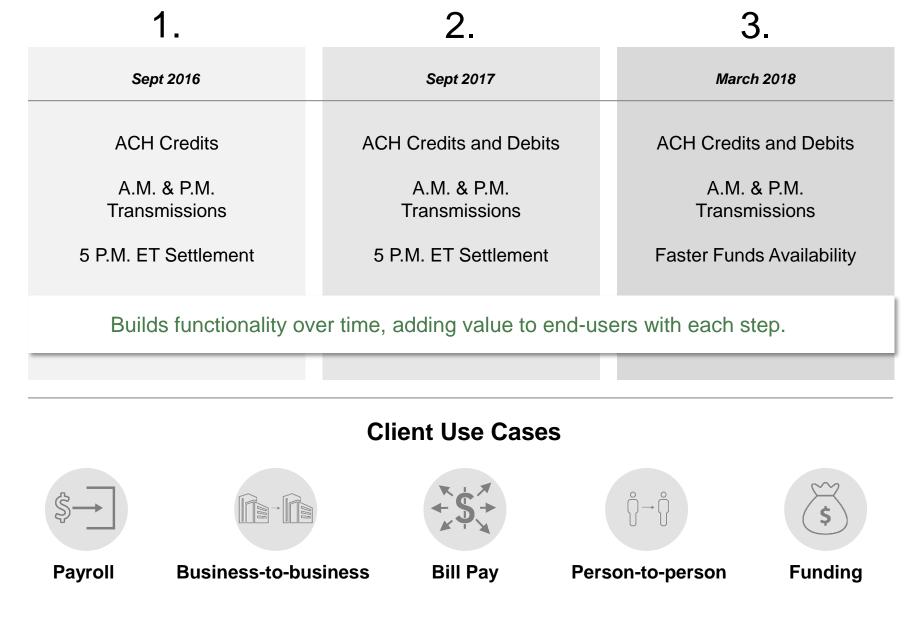
✓ Commitment to efficient change

✓ Preparing to adopt and support new payments rails that are created

Source: Federal Reserve FedPayments Improvement

The Federal Reserve has identified 5 strategies that would improve the U.S. payment system

NACHA – ACH Same-Day



New Payments Rails

	The Clearing House	Early Warning Systems	Networks	Book Transfer	Digital Currency
Name	Faster Payments	clearXchange	Visa OCT/ MC Send	E.g. Earthport	E.g. Bitcoin
Attributes Irrevocable Real-time Alias driven 	✓ ✓ 3 rd parties	\checkmark	✓ ✓ 3 rd parties	✓	✓ ✓ Wallets
Use cases P2P B2C Bill Pay B2B	(ISO 20022) ✓ ✓ ✓	\checkmark	\checkmark	V	\checkmark
Pros	20022 messaging; x- border	Integrated with 7 major banks	Ubiquitous, including x-border	Limited to low- value	Low cost in theory; x-border
Cons	Still building; cost?	60% 2016 real- time ubiquity; no x-border	Content limits; 3 rd parties provide alias	Limited to x-border use cases	Lack full AML compliance
When?	2017	2016	2016	2016	2016

The Millennial Impact

Used a bank's mobile app Used a bank's website or online portal Used the mobile app to transfer money Used the mobile app to pay a friend or family

Mi	llennial	s GenXers	Boomers
	67%	55%	33%
	78	75	67
	26	19	8
	21	12	5

Source: 2015 Chase Digital Adoption Survey

Chase's Digital Adoption Survey shows a high percentage of millennials using mobile apps and websites for banking and to transfer money

Statistic

75% of the workforce will be made up of Millennials by 2030¹

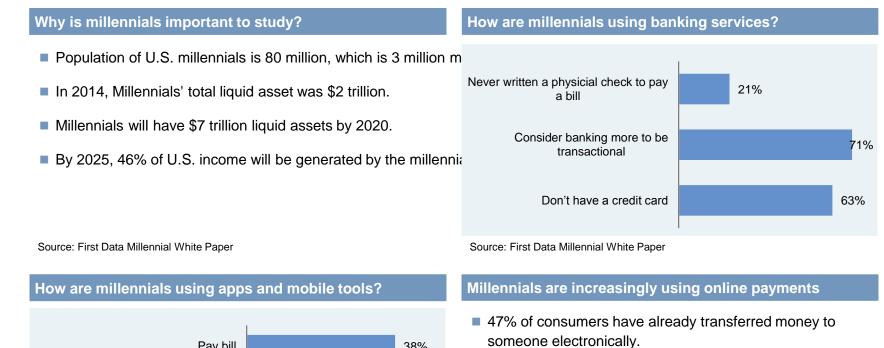
>50% of Millennials are using non-traditional payment companies like PayPal and Venmo²

Insight

- Millennials are highly tech savvy and grew up with internet and mobile devices, and as more and more become decision makers in businesses, the shift to electronic B2B payments could increase
- User friendliness and customer experience is driving Millennials toward non-traditional banking options, so companies must be willing to adapt

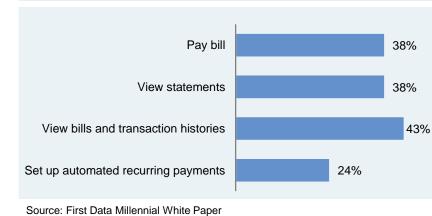
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Millennials are an online and mobile generation.



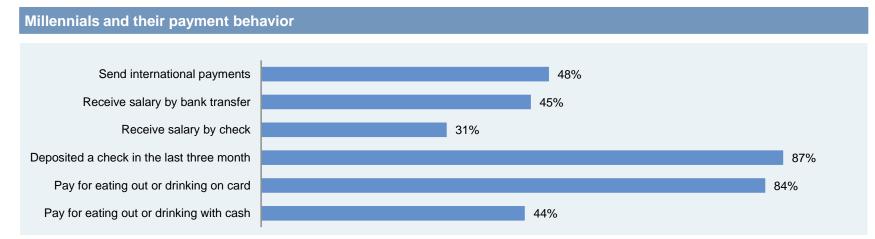
- 43% list online banking as the first or second most valuable aspect of their day-to-day banking experience.
- 23% list mobile banking as the first or second most valuable aspect of their day-to-day banking experience.

Source: First Data Millennial White Paper

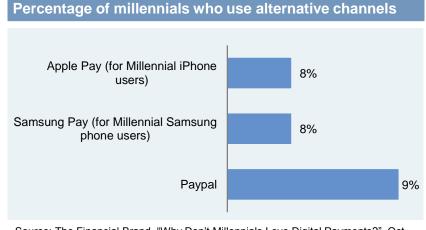


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Millennials are a tech-savvy generation and prefer convenient payment methods



Source: The Financial Brand, "Why Don't Millennials Love Digital Payments?", Oct 2016



Source: The Financial Brand, "Why Don't Millennials Love Digital Payments?", Oct 2016

Millennials and the future



Source: The Financial Brand, "Why Don't Millennials Love Digital Payments?", Oct 2016

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Millennial Impact for you University Panel

Questions for the audience to explore

- What has your university done to adapt to the changing demand from your millennials?
- Do you see challenges in the payments space as industry evolves and millennial further push the boundaries of what was once considered normal?
- What do you see as a threat to the existing practices for collecting payments from your students?
- What are your millennial students seeking from your respective schools today that you can and cannot deliver on?