

Technology, Media & Telecom

FINANCIAL TECHNOLOGY SECTOR REVIEW I Q4 2019

Harris Williams

HW Financial Technology Introduction

HARRIS WILLIAMS ("HW") AS A FIRM

- Founded in 1991
- 370+ professionals across eight offices globally
- 170+ closed transactions in the last 24 months.
- 21st record year in 2018
- 10 industry groups







TECHNOLOGY, MEDIA & TELECOM ("TMT") GROUP

- 35+ professionals across Boston, San Francisco, and London
- 42 closed transactions in the last 24 months

Horizontal Focus Sectors:

- Compliance Software
- CRM and Member Management Software
- Data and Analytics
- Enterprise Software
- Human Capital Management
- Infrastructure and Security Software
- IT and Tech Enabled Services
- Managed Services, Hosting, DataCenter Solutions
- Online Marketing, Data, and Research

Vertical Focus Sectors:

- Architecture, Engineering, and Construction
- eCommerce and Retail Software
- Education Technology
- Energy Technology
- Facilities and Real Estate Technology
- Financial Technology
- Government Technology
- Healthcare IT
- Industrial and Supply Chain Software

HW Fintech Contacts

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OBSERVATIONS ON KEY FINTECH TRENDS

- The financial technology market continues to attract strong interest from financial investors and strategic acquirers alike, with more than 550 M&A transactions completed in 2019 globally
- Consolidation persists as the sector matures and is expected to continue as fintech market leaders reach scale and look to pursue inorganic add-on opportunities to acquire customer relationships and grow payment volumes
- Online banking and payments companies continue to experience rapid growth lead by Zelle, which now facilitates P2P payments for 21 of the 27 largest banks in the U.S., and Chime, which grew from 4 million accounts in June to 6.5 million accounts by year-end
- Technology companies are increasingly seeking to integrate billing and payments directly into their solutions to both improve end-user experience and to capture incremental economics from payment processing, creating a significant opportunity for companies offering to outsource specialized fintech infrastructure for their customers
- Corporations globally are eager to optimize B2B transactions and automate traditional finance functions by leveraging the ever expanding trove of data collected and generated by improving ERP systems, and are investing in cloud-based software solutions that improve procurement, AP automation, supply chain finance, and settlement activities, as well as working capital exchanges that enhance profitability
- The banking and insurance industries continue to evolve as financial institutions increasingly adopt modern SaaS solutions to defend against competitive unbundled offerings, improve operational workflows, accelerate customer acquisition, and enhance client experience across business lines
- Adoption of online and mobile financial services solutions has accelerated globally as the proliferation of smartphones, digital currency, and digital native banks make online transaction increasingly frictionless, secure, and convenient for consumers and a necessity for merchants seeking to improve their customer experience

HW TMT Leadership

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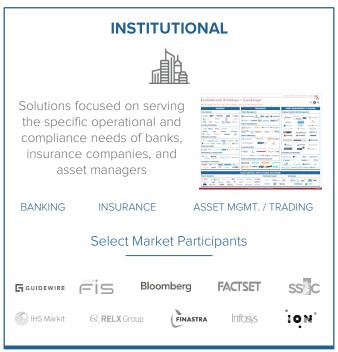
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Financial Technology Taxonomy







SFLECT RECENT HW FINANCIAL TECHNOLOGY TRANSACTIONS



Advent International

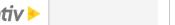
Provider of business management and revenue cycle management (RCM) services to the health and wellness, child care, insurance, and leisure and attraction verticals



has acquired



Provider of integrated risk management, policy administration, and insurance claims management software



FRONTST = PS

has acquired



Provider of a SaaS platform serving single family and condo high rise associations with unified property management, resident portals, accounting, payments, and security solutions



strategic investment from



Provider of next generation integrated digital government software and payment solutions, designed to improve government operations, revenue collection, and citizen engagement



has been acquired by



Provider of eLearning. workforce management, and compliance solutions to enterprises and professionals across financial services, healthcare, and real



has been acquired by LIGHTYEAR CAPITAL



Provider of mental and behavioral health practice management, revenue cycle management, billings, and integrated payment processing



has been acquired by



Provider of integrated software, data and analytics solutions to the global energy market including financial services. capital markets, and trading and risk



has been acquired by

GI PARTNERS



has been for fraternal acquired by organizations and non-PROVIDENCEEQUITY



Provider of integrated SaaS civic engagement and payment solutions for government entities



has been acquired by



Provider of integrated SaaS, insurance, and payments solutions for residential and commercial property managers

profits



Case Study: Receipt Bank

HW's TMT Group advised Receipt Bank on its \$73 million Series C Capital Raise from Insight Partners, Augmentum Fintech, Kennet Partners, and Canadian Imperial Bank of Commerce.



has received an investment from







COMPANY OVERVIEW

Receipt Bank is a leading provider of a digital bookkeeping platform for SMBs and professional accountants, offering proprietary machine learning technology that fully automates workflows across bookkeeping and accounting functions.

The Company's SaaS, Al-powered bookkeeping provides market-leading accuracy, scale, and speed, saving SMBs and bookkeepers hundreds of hours of administrative work and enabling them to focus on their business and drive revenue.

Receipt Bank serves the \$500 billion global accounting and bookkeeping services market and partners with more than 9,000 bookkeeping and accounting firms to serve over 300k SMBs.

RELEVANT SUB-SECTORS

SAAS

FINANCIAL TECHNOLOGY

VERTICAL SOFTWARE

HW DEAL CONTACTS

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Enterprise & Commercial Market Observations¹







Key Public Comps NETWORKS









Enterprise Value / LTM Rev. LTM EBITDA 2020E EBITDA 29.9x 21.8x

Key Public Comps



Transaction Spotlight

October 29, 2019





Enterprise Value: NA

Market Observations

Payment networks that facilitate next generation payment channels continue to benefit from accelerating migration of payments to digital environments

Payment networks are increasingly focused on growing payment volumes by enhancing their solution offering to deliver fast, frictionless, and secure payment processing across end-markets and geographies

Mastercard is Introducing Fintech Express

PROCESSING PAYMENT

LTM Rev.





globalpayments





Enterprise Value / LTM EBITDA 2020E EBITDA



Transaction Spotlight

November 17, 2019





Enterprise Value: \$315M

Market Observations

The traditional payment processing landscape is undergoing significant change as incumbents seek to maintain market share through consolidation and expansion of service and technology capabilities that improve customer experience and generate valuable data assets

As payments continue to shift to digital platforms, software providers are keen to improve their competitive position and gather better customer data by incorporating processing functionality directly into their solutions

Fintech: The Fourth Platform - Part Two

RANSACTIONS

Key Public Comps





Enterprise Value / LTM Rev. LTM EBITDA 2020E EBITDA 4.9x 15.7x 13.9x



Transaction Spotlight

November 20, 2019





Enterprise Value: NA

Market Observations

B2B payments continue to be a key focus area for businesses globally as supply chain management can greatly benefit from software, driving demand for solutions that improve operations, reduce payment friction, and help expand margins

Businesses continue to adopt solutions that improve collections and settlement, increase transparency across their entire ecosystem, and improve regulatory compliance and documentation

Payment Rail Innovation Tops B2B's Year of Disruption

COMPLIANCE

Key Public Comps



EQUIFAX



Enterprise Value / LTM Rev. LTM EBITDA 2020E EBITDA 7.5x 26.4x 18.0x



Transaction Spotlight

November 5, 2019



Capital Raised: \$165M

Market Observations

As financial services become increasingly digital, industries and regulators continue to implement stringent and expensive compliance requirements that are driving the adoption of software and Al solutions to automate data collection and meet compliance demands

Heightened awareness of, and focus on, privacy and data protection in the digital age is making innovative solutions that offer superior security measures a necessity for businesses across industries

The New-Paradigm: Key Trends in Al-Driven Fintech

BENEFITS

Key Public Comps



paycom[•]

10.5x









Transaction Spotlight

November 5, 2019





Capital Raised: \$45M

Market Observations

Enterprises across all markets continue to transition from legacy offerings to modern cloud-based solutions that improve operational efficiency, are capable of delivering solutions to evolving industries and changing work environments, and are user-friendly for a youthful workforce

Incumbents and challengers alike continue to be acquisitive of solutions that expand their TAM and enable them to offer more closely integrated workforce management and benefits administration solutions across industries

How Payroll Keeps Up With a Modernizing Workforce

Institutional & Consumer Market Observations¹









Key Public Comps



SANKING

INSURANCE

MARKETPLACE

ENDING

Enterprise Value /

LTM Rev. LTM EBITDA 2020E EBITDA

5.6x 17.4x 19.2x

Stock Price Performance 200% 150% 100% 50% Jan-15 Jan-16 Jan-17 Jan-18 Jan-19 Jan-20 — \$&P 500 — Banking

Transaction Spotlight

October 24, 2019





Capital Raised: \$20M

Market Observations

Traditional financial institutions continue to acquire, partner, and implement next-generation technology solutions across back-, middle-, and front-office functions to compete with specialized digital-native upstarts

Digital-native banking platforms that offer consumers flexible and convenient products are gaining prominence, putting additional pressure on incumbents, particularly as consumer loyalty remains low and low overhead allows digital platforms to lower fees and increase rates

The 'Underbanked' Is The Next Trillion-Dollar Opportunity in Fintech

Key Public Comps

Guidewire

SAPIENS

Enterprise Value /

LTM Rev. LTM EBITDA 2020E EBITDA

4.2x 18.9x 18.0x



Transaction Spotlight

November 1, 2019



Enterprise Value: NA

Market Observations

Insurance carriers and underwriters are increasingly focused on digitizing the customer journey to enable personalized and contextual interactions with policyholders and prospects across all channels and at a lower cost, increasing customer acquisition while reducing costs

Similar to the disruption occurring in the banking sector, digital-native and vertical-specific platforms continue to attract customers and put increasing pressure on traditional insurance providers and market rates

Insurance: The Last Frontier In Customer-Centric Buying Experiences

Key Public Comps

Moody's



Enterprise Value /

LTM Rev. LTM EBITDA 2020E EBITDA

8.1x 18.9x 15.7x



Transaction Spotlight

December 2, 2019





Enterprise Value: NA

Market Observations

AMT organizations continue to seek software solutions that enhance returns with powerful research tools using data and analytics, improve liquidity and access to capital, and streamline investor relations functions allowing managers to focus on investing

Wealth managers and financial advisors continue to use partnerships and M&A to achieve scale and fend off online investment platforms and roboadvisors and slow the flow of capital moving into passive funds

Lookout, Robinhood. E*Trade, Schwab, Ameritrade Go 'Zero-Fee'

Key Public Comps





Enterprise Value /

LTM Rev. LTM EBITDA 2020E EBITDA

5.0x 24.7x 14.1x



Transaction Spotlight

December 3, 2019





Capital Raised: \$20M

Market Observations

Consumer utilization of peer-to-peer payment solutions—especially those facilitated through mobile platforms—has given rise to a number of innovative offerings and has forced incumbents to acquire or launch frictionless solutions to keep pace

Growing demand for peer-to-peer transfers continues to drive down costs as providers of all sizes compete to monetize rapidly growing payment volumes

P2P Payments' Rising Appeal Beyond Millennials

Key Public Comps

IIILendingClub **OnDeck**>

Price /
2019 Book Value 2020E Book Value
1.1x 1.0x



Transaction Spotlight

October 28, 2019



Capital Raised: \$60M

Market Observations

Persistent rates have enabled traditional lenders to stay competitive, forcing challengers to find unique ways to differentiate their offerings such as rapid and differentiated credit decisioning for sub-prime borrowers, alternative funding sources, and new product offerings

Marketplace lending has become increasingly specialized as niche players offering vertical specific solutions and expertise have successfully attracted new customers, despite being in the early stages of maturity

Charter or Not, Fintechs are Already 'Banking'

Select Financial Technology M&A Transactions¹



Announced December 18, 2019



Buildium®



Enterprise Value: \$580M

EV / Rev: 11.6x

Rev: \$50M

EV / EBITDA: NA

RealPage's acquisition of Buildium





- Buildium is a provider of property management software including accounting, leasing, and rental and utility payments solutions
- Buildium serves over 17,000 customers and manages over two million residential units around the globe
- Buildium's suite of solutions will provide RealPage access to smaller multi-family developments, and the single-family and Home Owner's Association (HOA) markets

Announced November 21, 2019





Enterprise Value: \$4.0B

EV / Rev: NM

Rev: \$100M

EV / EBITDA: NA

PayPal's acquisition of Honey Science



- Honey is a leading technology platform for online shopping discounts, price-tracking, and rewards that operates as a
 popular browser extension application
- Honey seamlessly integrates with thousands of online retailers including Amazon, Ebay, and Expedia and has over 17
 million monthly active users
- Leveraging PayPal's worldwide network of thousands of consumers and merchants will help to improve the user experience for all Honey users while increasing sales and customer engagement for PayPal merchants

Closed November 20, 2019





Enterprise Value: NA

EV / Rev: NA

Rev: NA

EV / EBITDA: NA

Medius' acquisitions of Wax Digital





- Wax Digital is a provider of e-procurement, accounts payable automation, and supplier management software solutions for the global retail, travel and hospitality, financial services, healthcare, construction, and manufacturing industries
- Was Digital has deployed its solutions across 102 countries in 14 languages to 260,000 users managing \$30B of spend annually and has consistently achieved 98%+ customer renewal rates
- The combined entity will have 350 employees across North America, Europe, and Oceania and will offer a comprehensive source-to-pay suite allowing customers to identify and track savings opportunities and find suppliers

Announced November 1, 2019





Enterprise Value: NA

EV / Rev: NA

Rev: NA

EV / EBITDA: NA

Ellie Mae's acquisition of Capsilon





- Capsilon is a provider of document management and mortgage automation solutions for lenders, investors, and servicers
- Capsilon processes an estimated 15% of all U.S. mortgages, equating to about \$400 billion in loan volume in 2018, for over 160 customers including 3 of the top 10 mortgage lenders
- Capsilon's AI driven data automation and validation solutions will expand Ellie Mae's existing suite of end-to-end mortgage automation tools

Closed October 4, 2019





Enterprise Value: \$6.0B

EV / Rev: NA

Rev: NA

EV / EBITDA: NA

Zelis's merger with RedCard

B2B Transactions



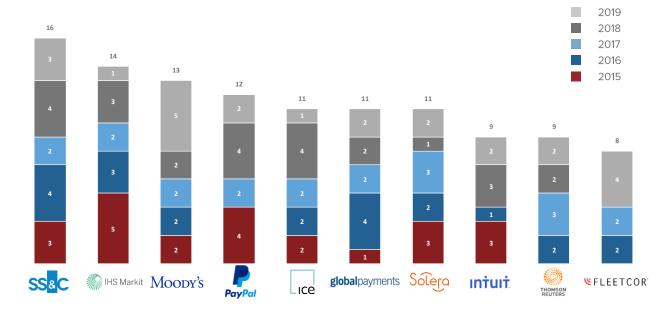
- RedCard and Zelis are leading providers of financial technology and payment processing solutions for the global healthcare market
- The combined firm will process claims for 700 payers and over 600,000 providers across the healthcare landscape
- Both firms have a common investor base and compete in the same markets, making a merger a logical next step to expand scale, accelerate growth, and improve customer experience



Financial Technology Acquisition Activity

MOST ACTIVE STRATEGIC ACQUIRERS OF FINTECH ASSETS BY VOLUME²

- The 10 most active strategic fintech consolidators have acquired over 100 companies since 2015.
- This group completed 24 fintech acquisitions in 2019, with 5 of the 10 meeting or exceeding their 2018 deal count.



GLOBAL FINANCIAL SOFTWARE M&A ACTIVITY2

- Across financial software, there were 122 M&A transactions closed in Q4 2019, with private equity transactions representing 35% of total deal volume.
- Strategic acquirers continue to outpace private equity as the race for wallet-share and additional payment volumes remains front-ofmind for many decision-makers.



Enterprise & Commercial Solutions – Landscape

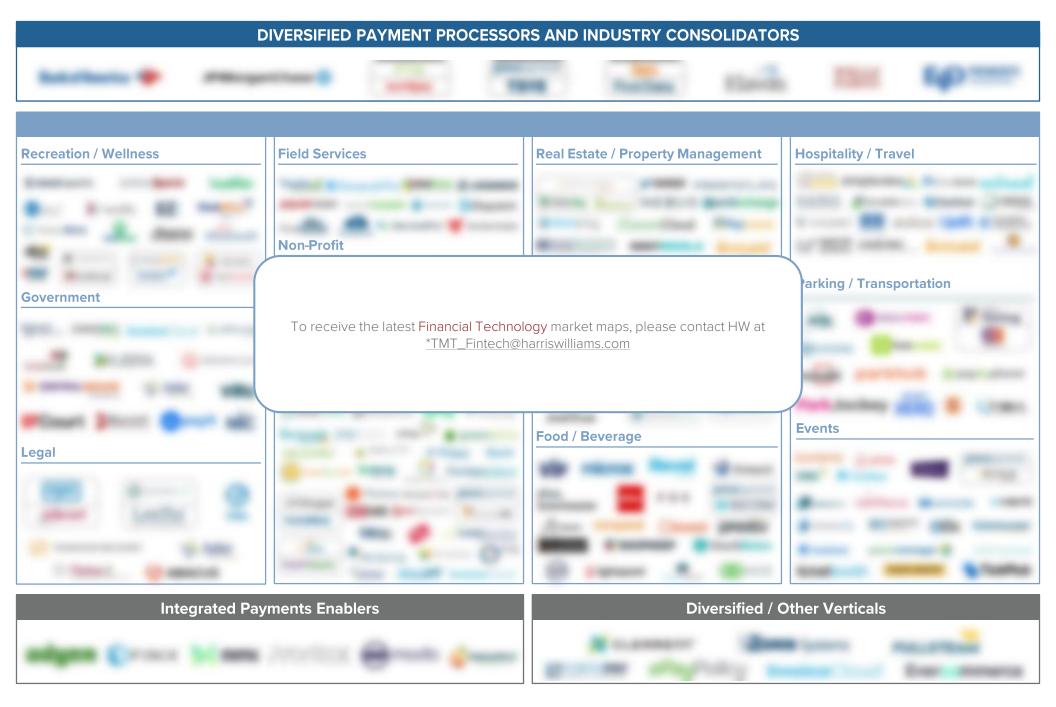


REPRESENTATIVE ENTERPRISE & COMMERCIAL SOLUTION PROVIDERS

PAYM	I E N T S	OTHER E&C FINANCIAL SOFTWARE
PAYMENT PROCESSING & NETWORKS	B2B TRANSACTIONS	FINANCIAL SOFTWARE
Payment Networks	Transfers & Remittance	Data & Compliance
Traditional Payment Processors		
		Leasing
Payment Security To receive	e the latest <mark>Financial Technology</mark> market maps, please co *TMT_Fintech@harriswilliams.com	ace Lending
Payment Gateways / ISOs	Bill Payment	Accounting, Tax, & Treasury
	Subscription Billing	HCM & Payroll
Vertical Specific Payments		Benefits
SEE NEXT PAGE FOR VERTICAL PAYMENTS MARKET MAP DETAIL	Virtual Credit Cards	



Vertical software and payments ecosystem.



Enterprise & Commercial Solutions – Trading Comparables







VALUATION1

As of December 31st, 2019 (\$ in millions)

Fintech Sub-Vertical	Company	Ticker	Enterprise Value	Market Capitalization	% of 52 Week High	1-Year Stock Performance	3-Year Stock Performance	Revenu 2019E	ie Growth 2020P	2019E EBITDA Margin	19E Rev.	Enterpris 20P Rev.	se Value /	20P EBITD	Pric
np-verticai	Company	<u></u>	Value	_ Capitalization	_ week nigh	Performance	Performance	2019E		IVIaI GII I	ISE Rev.		19E EBITUA	20P EBITU	4 Eall
					32B TR.	ANSAC1	IONS								
ransfer/Remit	Western Union	WU	\$13,330	\$11,228	93.5%	(2.3%)	37.7%	(0.5%)	2.4%	25.5%	2.5x	2.5x	9.9x	9.3x	8
	Open Text Corporation	OTEX	\$13,729	\$11,875	98.9%	0.3%	23.9%	2.4%	(100.0%)	39.3%	4.6x	NA	11.7×	NA	3
Invoicing, EDI, RCM	Cass Information Systems	CASS	\$621	\$837	93.6%	(1.2%)	17.6%	NA	NA	NA	NA	NA	NA	NA	2
	Basware	HLSE:BAS1V	\$435	\$386	59.4%	1.0%	(53.0%)	7.5%	9.9%	10.8%	2.4x	2.2x	22.6x	16.0x	
2B Payments	FleetCor Technologies	FLT	\$28,478	\$24,969	91.0%	(O.1%)	49.3%	10.7%	10.1%	59.0%	9.7x	8.8x	16.4x	14.7x	2
2D Fayineits	WEX	WEX	\$11,671	\$9,067	95.8%	1.4%	50.4%	10.6%	8.4%	41.0%	6.1x	5.6x	14.8x	13.6x	8
2B Transaction	ns Median		\$12,501	\$10,148	93.5%	0.1%	30.8%	7.5%	8.4%	39.3%	4.6x	4.0x	14.8x	14.1x	2
					РА	YMENTS	3								
	Visa	V	\$415,002	\$404,885	100.4%	1.5%	67.2%	11.2%	10.9%	70.5%	15.9x	14.3x	22.5x	19.9x	3
Payment	Mastercard	MA	\$303,504	\$301,237	100.2%	1.2%	99.7%	13.5%	13.2%	62.1%	15.9x	14.0×	25.5x	22.2x	
Networks	American Express	AXP	\$139,443	\$101,867	97.3%	1.1%	26.7%	7.4%	6.9%	0.0%	3.0x	2.8x	NA	NA	
	Discover Financial Services	DFS	\$45,530	\$26,588	91.3%	0.1%	10.4%	4.6%	5.1%	0.0%	3.8x	3.6x	NA	NA	
	Fidelity National Information Services	FIS	\$104,944	\$85,485	98.8%	0.4%	48.4%	31.2%	7.7%	46.4%	7.7x	7.2x	16.7x	14.9x	
	Fiserv	FISV	\$101,985	\$78,616	97.8%	(0.2%)	75.9%	9.8%	5.5%	38.1%	6.3x	6.0x	16.5x	15.6x	
	Global Payments	GPN	\$63,046	\$54,868	99.6%	1.2%	84.3%	62.2%	8.3%	38.6%	6.9x	6.4x	17.9x	15.8x	
Payment Processing	Square	SQ	\$26,776	\$26,881	76.5%	1.7%	83.6%	27.6%	28.6%	18.6%	9.4x	7.3x	NM	35.1x	
riocessing	Adyen	ADYEN	\$23,394	\$24,864	99.0%	1.8%	NM	37.3%	37.2%	58.0%	30.6x	22.3x	NM	37.8x	
	Euronet Worldwide	EEFT	\$8,227	\$8,513	92.3%	NA	87.5%	10.8%	10.5%	22.8%	2.7x	2.4x	11.7×	10.3x	:
	EVO	EVOP	\$877	\$1,089	83.1%	0.4%	NM	7.4%	11.4%	28.6%	1.4x	1.3x	5.0x	4.5x	
yments Medi	ian		\$63,046	\$54,868	97.8%	1.1%	75.9%	11.2%	10.5%	38.1%	6.9x	6.4x	16.7x	15.8x	4
				F	INANCI	AL SOF	TWARE								
	Automatic Data Processing	ADP	\$75,255	\$73,775	97.4%	(0.3%)	45.0%	6.5%	7.0%	26.4%	4.9x	4.5x	18.4x	16.9x	3
	Paychex	PAYX	\$30,835	\$30,484	95.9%	(0.3%)	24.6%	5.7%	6.1%	41.3%	7.2x	6.8x	17.5x	16.4x	2
Payroll &	Paycom Software	PAYC	\$15,217	\$15,265	96.6%	2.1%	236.5%	23.6%	22.5%	42.5%	16.8x	13.7×	39.4x	31.7x	
Benefits	Ceridian	CDAY	\$10,214	\$9,773	101.5%	2.6%	NM	12.6%	14.8%	23.4%	11.0×	9.6x	47.2x	39.1x	2
	Paylocity	PCTY	\$6,420	\$6,465	102.7%	4.3%	167.2%	19.6%	19.7%	28.9%	10.4x	8.7x	35.9x	29.2x	1
	TriNet	TNET	\$4,137	\$3,954	73.9%	0.4%	28.2%	7.8%	8.8%	39.9%	4.1x	3.8x	10.4x	9.0x	
	Intuit	INTU	\$66,702	\$68,182	89.5%	1.1%	67.8%	10.1%	11.5%	36.1%	8.5x	7.6x	23.6x	21.2x	
Accounting &	Sage	LSE:SGE	\$11,253	\$10,734	90.5%	(1.0%)	(8.6%)	1.3%	5.2%	25.6%	4.3x	4.1x	16.8x	15.8x	
Tax	Xero	ASX:XRO	\$7,850	\$7,863	94.4%	(0.8%)	149.2%	27.5%	23.3%	23.2%	13.3x	10.8x	NM	40.7x	
	Avalara	AVLR	\$5,189	\$5,636	82.6%	6.3%	NM	25.2%	24.4%	1.1%	11.1x	8.9x	NM	NM	
	Moody's	MCO	\$49,591	\$44,811	100.2%	1.5%	63.2%	6.0%	6.6%	48.7%	9.8x	9.2x	20.2x	18.9x	
	Thomson Reuters	TRI	\$38,222	\$35,799	97.1%	0.7%	50.3%	5.0%	4.2%	31.3%	6.2x	5.9x	19.7×	18.5x	2
Data &	Experian	EXPN	\$34,992	\$30,478	96.6%	(0.9%)	52.0%	7.3%	9.4%	35.9%	6.5x	6.0x	18.2x	16.7x	
Compliance	Equifax	EFX	\$20,151	\$16,966	95.1%	0.8%	19.8%	5.7%	6.1%	34.4%	5.4x	5.1x	15.8x	14.5x	
	TransUnion	TRU	\$19,800	\$16,120	99.7%	1.8%	58.6%	8.5%	8.1%	39.6%	6.9x	6.4x	17.4x	15.9x	
	FICO	FICO	\$11,576	\$10,851	100.4%	1.9%	149.3%	7.4%	7.9%	33.0%	9.1x	8.4x	27.6x	24.4x	4
	are Median		\$17.508	\$15,693	96.6%	1.0%	55.3%	7.6%	8.4%	33.7%	7.9x	7.2x	19.0x	18.5x	4

Enterprise & Commercial Solutions – Transaction Activity







SELECT RECENT M&A TRANSACTIONS¹

Date	Target/Issuer	Buyer	Description	Enterprise Value (\$m)
12/17/2019	Fortis Payment Systems	Lovell Minnick Partners	Provider of multi-vertical payment processing solutions.	NA
12/10/2019	optile	Payoneer	Provider of an open payment orchestration platform.	NA
12/09/2019	Giftpro	ClearCourse	Provider of a software platform that allows users to sell and manage gift vouchers and event tickets.	NA
12/01/2019	EPayPolicy	Serent Capital	Provider of an online insurance payments platform.	NA
11/19/2019	Wax Digital	Medius	Provider of a cloud based e-procurement and spend management software.	NA
11/18/2019	Sage Pay Business of The Sage Group	Elavon	Provider of payment gateway services.	\$315
11/06/2019	Buildium	RealPage	Provider of online property management software for small businesses.	\$580
10/28/2019	Armatic Technologies	BlueSnap	Provider of accounts receivable automation and e-invoicing software.	NA
10/25/2019	BluePay Canada ULC	First Financial Merchant Services	Provider of B2B payment processing systems and solutions for suppliers and vendors.	NA
10/25/2019	Payroc	Parthenon Capital Partners	Provider of payment processing solutions.	NA
10/22/2019	SessionM	Mastercard	Provider of a cloud-based Software-as-a-Service platform for customer engagement.	NA
10/22/2019	Bell Identification	Visa	Provider of a chip-based payment software platform.	NA
10/16/2019	DaySmart Software	Parthenon Capital Partners, LLR Partners	Provider of business management software and workflow solutions.	NA
10/14/2019	Billhighway	Lovell Minnick Partners	Provider of integrated software and payments to membership-based organizations.	NA
10/10/2019	Priority Vendor	C2FO	Provider of an early-payment facilitation platform for cash discounting.	NA

SELECT RECENT PRIVATE PLACEMENT TRANSACTIONS²

Announced Date	Target/Issuer	Investor(s)	Description	New Money (\$m)
11/14/2019	DadeSystems	Fifth Third Capital	Provider of payment processing software solutions.	\$9
11/13/2019	Spreedly	Spectrum Equity Management	Provider of a credit card vault for e-commerce, fintech, and cloud-based billing platforms.	\$75
11/05/2019	Riskified	General Atlantic	Provider of a fraud prevention platform for online merchants.	\$165
11/05/2019	Papaya Global	Bessemer Venture Partners	Provider of a cloud-based SaaS platform that automates payroll processing.	\$45
11/05/2019	LeaseQuery	Goldman Sachs	Provider of lease accounting software.	\$40
10/28/2019	Scratch Financial	Companion Fund	Provider of an online platform that offers pet owners simple and friendly payment plans.	\$15
10/22/2019	Benevity	General Atlantic	Provider of workplace giving and volunteer management software solutions.	\$40
10/22/2019	MarginEdge	Osage Venture Partners	Provider of food and beverage tracking and analytics software for restaurants.	\$5
10/15/2019	Ascent Technologies	Drive Capital, Wells Fargo	Provider of Al-driven solutions that help customers automate regulatory compliance.	\$19
10/10/2019	Clari	Sapphire Ventures, Bain Capital	Provider of a revenue operations platform to improve productivity and forecast revenue.	\$60
10/08/2019	Lyte	Jackson Square Ventures	Provider of a ticketing platform intended to offer tickets at a fair price.	\$15
09/30/2019	Empowered Benefits	LLR Partners	Provider of an employee health benefits platform to connect employees with voluntary benefits.	NA
09/27/2019	Recurly	Polaris Partners	Provider of a subscription billing services platform to deliver recurring billing automation.	\$20
07/09/2019	Passport Parking	Rho Capital Partners, H.I.G. Growth	Provider of parking, transportation, and transit management solutions.	\$65
09/24/2019	Tipalti	Group 11, Zeev Ventures	Provider of a cloud-based accounts payable automation platform.	\$76

Institutional Solutions – Landscape



REPRESENTATIVE INSTITUTIONAL SOLUTION PROVIDERS

BANKING	INSURANCE	ASSET MANAGEMENT & TRADING
Core Systems	Policy Management	Trading, Wealth & Risk Management
Digital Enablers	Claims Management	
Lending & Workflow		
Alternative Lending To receive	e the latest <mark>Financial Technology</mark> market maps, please co *TMT_Fintech@harriswilliams.com	ntact HW at
Lead Generation		Compliance & Reporting
Networking & Collaboration	Online Distribution & Direct-to-Consumer	
Compliance & Analytics		
	MULTI-VERTICAL INSTITUTIONAL SOLUTIONS	
Data & Analytics	Distributed Ledger	Exchanges

Institutional Solutions – Trading Comparables







VALUATION1

As of December 31st, 2019 (\$ in millions)

Fintech			Enterprise	Market	% of 52	1-Year Stock	3-Year Stock	Revenu	e Growth	2019E EBITDA		Enterpri	se Value /		Price /
Sub-Vertical	Company	Ticker	Value	Capitalization	Week High	<u>Performance</u>	Performance	2019E	2020P	<u>Margin</u>	19E Rev.	20P Rev.	19E EBITDA	20P EBITDA	Earnings
					ВА	ANKING									
	Temenos	SWX:TEMN	\$12,403	\$11,227	83.0%	(0.3%)	23.0%	20.8%	12.3%	40.4%	10.5x	9.3x	26.0x	22.4x	66.4x
	Jack Henry & Associates	JKHY	\$11,185	\$11,207	95.3%	0.0%	24.6%	6.2%	6.1%	31.8%	6.5x	6.1x	20.4x	18.4x	41.5x
	ACI Worldwide	ACIW	\$5,745	\$4,379	99.7%	0.3%	67.7%	14.7%	5.9%	28.5%	3.8x	3.6x	13.3x	12.3x	44.4x
Core Systems	CoreLogic	CLGX	\$5,252	\$3,476	88.3%	(0.0%)	(5.5%)	(1.8%)	1.1%	29.7%	3.0x	3.0x	10.3x	10.0x	118.2x
	Q2 Holdings	QTWO	\$3,725	\$3,904	88.4%	2.1%	124.6%	30.5%	23.3%	4.8%	9.0x	7.3x	NM	NM	NM
	Oracle Financial Services Software	BSE:532466	\$2,749	\$3,274	69.2%	(0.7%)	(39.9%)	6.4%	6.3%	45.7%	3.7x	3.5x	8.1x	7.5x	20.1x
	Bottomline Technologies	EPAY	\$2,402	\$2,357	99.1%	0.3%	55.0%	9.1%	10.2%	23.9%	5.1x	4.6x	21.3x	19.9x	171.1x
Banking Median	1		\$5,252	\$3,904	88.4%	0.0%	24.6%	9.1%	6.3%	29.7%	5.1x	4.6x	16.8x	15.4x	55.4x

	INSURANCE														
Technology &	Guidewire Software	GWRE EBIX	\$8,476 \$1,711	\$9,065 \$1,019	88.8% 52.3%	(0.0%) 0.1%	47.8% (57.8%)	18.7% 21.1%	16.1% 31.0%	19.1% 26.9%	10.3x 2.4x	8.9x 1.8x	NM 8.9x	40.1x NA	NM 14.2x
Underwriting	Ebix Sapiens International	SPNS	\$1,711 \$1,203	\$1,019 \$1,151	97.0%	0.0%	99.7%	11.6%	9.5%	18.1%	2.4x 3.3x	3.0x	6.9x 18.4x	16.4x	14.2x 46.9x
Insurance Media	an		\$1,711	\$1,151	88.8%	0.0%	47.8%	18.7%	16.1%	19.1%	3.3x	3.0x	13.7x	28.2x	30.5x

set Manage	ement & Trading Median		\$23,573	\$19,713	96.3%	0.1%	39.2%	5.3%	4.5%	50.9%	7.8x	7.5x	17.7x	16.0
	Envestnet	ENV	\$4,251	\$3,654	95.7%	1.6%	41.9%	14.2%	13.0%	22.6%	4.1x	3.6x	18.2x	15.7×
AMT	Broadridge Financial Solutions	BR	\$15,818	\$14,163	90.1%	(O.1%)	36.2%	5.9%	4.4%	22.2%	3.4x	3.3x	15.3x	14.4×
	Euronext	ENXTPA:ENX	\$6,660	\$5,789	97.9%	2.5%	33.7%	13.5%	4.3%	57.5%	7.7x	7.4x	13.4x	12.5
	CBOE	CBOE	\$14,045	\$13,293	95.2%	(0.9%)	(4.6%)	6.2%	4.6%	67.6%	11.6x	11.1x	17.2x	16.2
Indices	NASDAQ	NDAQ	\$21,081	\$17,555	99.0%	0.1%	39.6%	4.3%	4.6%	53.1%	8.0x	7.6x	15.0x	14.
Market	London Stock Exchange	LSE:LSE	\$37,152	\$35,381	97.2%	(1.4%)	98.0%	4.1%	5.2%	56.3%	11.8x	11.2x	21.0x	19.4
	ICE	ICE	\$59,141	\$51,536	97.0%	0.1%	31.3%	5.6%	5.0%	65.4%	10.7x	10.2x	16.4x	15.5
	CME	CME	\$75,196	\$71,931	89.5%	0.3%	37.8%	5.0%	4.4%	69.2%	14.6x	14.0x	21.1x	19.5
	FactSet Research Systems	FDS	\$10,659	\$10,181	87.6%	(0.2%)	38.9%	4.0%	4.0%	35.0%	7.1x	6.8x	20.2x	19.:
	SS&C Technologies Holdings	SSNC	\$23,395	\$15,516	90.8%	0.1%	51.9%	3.3%	3.3%	40.0%	4.9x	4.7x	12.2x	11.5
Analytics	MSCI	MSCI	\$23,751	\$21,870	98.9%	2.5%	109.1%	9.6%	8.8%	55.5%	14.0x	12.8x	25.2x	22.
Data &	Thomson Reuters	TRI	\$38,222	\$35,799	97.1%	0.7%	50.3%	5.0%	4.2%	31.3%	6.2x	5.9x	19.7x	18.
	Moody's	MCO	\$49,591	\$44,811	100.2%	1.5%	63.2%	6.0%	6.6%	48.7%	9.8x	9.2x	20.2x	18.
	RELX	LSE:REL	\$57,292	\$48,365	93.9%	(0.9%)	6.7%	3.3%	3.5%	36.4%	5.3x	5.1x	14.5x	13.
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Institutional Solutions – Transaction Activity







SELECT RECENT M&A TRANSACTIONS¹

Date	Target/Issuer	Buyer	Description	Enterprise Value (\$m)
12/30/2019	SpatialKey	GI Partners	Provider of insurance analytics and data visualization applications.	NA
12/11/2019	Investor Management Services	RealPage	Provider of an Investor Relationship Management (IRM) platform for commercial real estate owners.	NA
12/10/2019	IT Software	LIST Group	Provider of order-management, pre-trade risk management, and market data management software.	NA
12/04/2019	FAST	Verisk Analytics	Provider of a SaaS-based automation technology platform for the insurance industry.	\$194
12/04/2019	Indio Technologies	Applied Systems	Provider of a technology platform offering digital tools for traditional commercial insurance brokers.	NA
11/20/2019	CoverWallet	Aon	Provider of an online smart digital wallet for business insurance policies and rates.	NA
11/15/2019	Marketfactory	ION	Provider of a single application programming interface trading platform.	NA
11/03/2019	AdviserLogic	Morningstar	Provider of software and services for wealth managers and financial advisors in Oceania.	NA
10/29/2019	StatPro	Confluence	Provider of cloud-based data solutions and portfolio analysis software for asset managers.	\$210
10/28/2019	Capsilon	Ellie Mae	Provider of cloud-based technology solutions for the mortgage industry.	NA
10/10/2019	Fi360	Broadridge Financial Solutions	Provider of fiduciary certification and training arena services.	\$120
10/08/2019	International Decision Systems	Thoma Bravo	Provider of lease origination and portfolio management software for financial institutions.	NA
10/02/2019	ABS Suite Business of Deloitte & Touche LLP	Moody's Corporation	Provider of software for issuers and trustees of asset and mortgage backed securities programs.	NA
09/25/2019	Algorithmics	SS&C Technologies	Provider of risk analytics products and services for the financial services industry.	NA
09/11/2019	Vertice Technologies	Vista Equity Partners	Provider of investment management and reporting software for alternative investment industry.	\$500

SELECT RECENT PRIVATE PLACEMENT TRANSACTIONS²

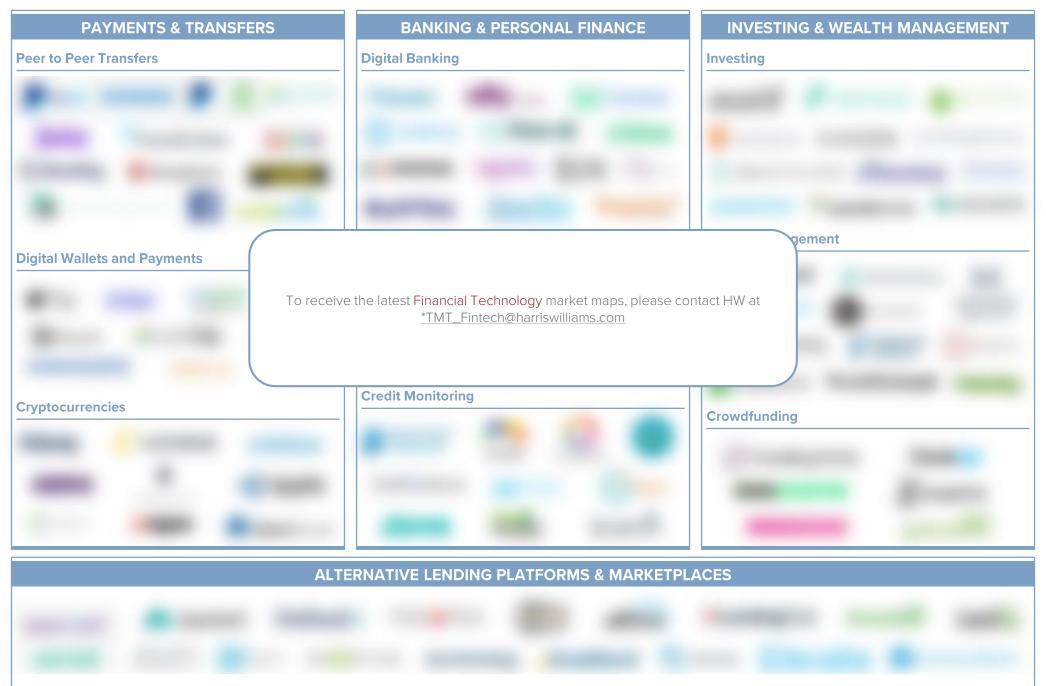
Announced Date	Target/Issuer	Investor(s)	Description	New Money (\$m)
11/14/2019	DataCubes	Palm Drive Capital	Provider of a data science platform for commercial underwriting.	\$15
11/11/2019	Alpaca	Spark Capital	Provider of an algorithmic trading platform to offer visual data by using artificial intelligence.	\$6
10/28/2019	Ravenpack International	GP Bullhound	Provider of news analytics and machine-readable content.	\$10
10/24/2019	Current	Wellington Management	Provider of digital banking services.	\$20
10/08/2019	SmartSearch	Marlin Equity Partners	Provider of anti-money laundering software to help customers comply with regulations.	NA
09/30/2019	Bnext	DN Capital	Provider of a digital banking platform designed to offer financial products in Spain.	\$25
09/26/2019	Paro	Revolution	Provider of an online financial advisory platform to connect companies with finance professionals.	\$10
09/26/2019	MoneyFarm SIM	Allianz SE	Provider of online financial advisory and execution services in Italy.	\$44
09/25/2019	Klar	Quona Capital	Provide of digital credit and debit cards in Mexico.	\$58
09/25/2019	Verafin	Spectrum Equity	Provider of cloud-based fraud detection and anti-money laundering software.	\$390
09/17/2019	Biproxi	RPM Ventures, Greycroft	Provider of an online commercial real estate marketplace for brokers, buyers, and tenants.	\$10
09/17/2019	Vouch Insurance	Ribbit Capital, SVB Financial Group	Provider of business insurance to startups.	\$25
09/17/2019	Trulioo	Goldman Sachs	Provider of an electronic identity and address verification platform.	\$53
09/16/2019	nCino	T. Rowe Price	Provider of cloud-based solutions for the banking industry.	\$80
09/04/2019	Kasisto	Rho Capital, Oak HC/FT	Provider of a digital experience platform for the financial services industry.	\$15

Consumer Solutions – Landscape





REPRESENTATIVE CONSUMER SOLUTION PROVIDERS



Consumer Solutions – Trading Comparables







VALUATION1

As of December 31st, 2019 (\$ in millions)

Fintech			Enterprise	Market	% of 52	1-Year Stock	3-Year Stock	Revenue	Growth	2019E EBITDA		Enterpris	se Value /		Price /
Sub-Vertical	Company	Ticker	Value	Capitalization	Week High	<u>Performance</u>	<u>Performance</u>	2019E	2020P	Margin	19E Rev.	20P Rev.	19E EBITDA	20P EBITDA	Earnings
					PEEF	R TO PE	ER								
1	PayPal	PYPL	\$122,027	\$127,012	91.2%	2.4%	50.5%	16.9%	17.4%	26.9%	5.9x	5.0x	21.8x	18.5x	49.4x
P2P Transfers	Western Union	WU	\$13,330	\$11,228	93.5%	(2.3%)	37.7%	(0.5%)	2.4%	25.5%	2.5x	2.5x	9.9x	9.3x	8.5x
	Green Dot Corporation	GDOT	\$359	\$1,200	27.8%	0.3%	(61.2%)	(0.0%)	5.6%	16.2%	0.3x	0.3x	2.1x	1.8x	11.7×
Marketplace	LendingClub	LC	\$1,536	\$1,112	64.6%	(3.5%)	(41.0%)	13.1%	11.1%	21.1%	1.8x	1.6x	8.4x	6.8x	NM
Lending	On Deck Capital	ONDK	\$1,113	\$281	51.3%	(2.3%)	(29.5%)	6.0%	8.6%	9.0%	2.4x	2.2x	26.1x	23.5x	7.9x
Peer to Peer Me	edian		\$1,536	\$1,200	64.6%	(2.3%)	(29.5%)	6.0%	8.6%	21.1%	2.4x	2.2x	9.9x	9.3x	10.1x

Personal Finan	ce & Mobile Wallet Median		\$947,344	\$916,154	100.0%	1.8%	67.8%	11.3%	11.6%	36.1%	6.3x	5.3x	17.7x	15.2x	30.1x
	Facebook	FB	\$542,184	\$585,321	100.0%	1.8%	18.4%	21.8%	19.5%	50.7%	6.3x	5.3x	12.5x	10.4x	30.1x
Wallets	Amazon	AMZN	\$947,344	\$916,154	93.1%	2.6%	62.1%	18.6%	17.0%	15.1%	2.9x	2.4x	18.9x	15.3x	72.0x
Mobile	Microsoft	MSFT	\$1,152,024	\$1,203,063	100.2%	1.4%	87.0%	11.3%	11.6%	43.9%	7.8x	7.0x	17.7x	15.2x	27.5x
	Apple	AAPL	\$1,312,255	\$1,304,765	101.8%	1.9%	76.9%	6.9%	6.0%	29.0%	4.7x	4.4x	16.0×	14.9x	18.6x
Personal Fin.	Intuit	INTU	\$66,702	\$68,182	89.5%	1.1%	67.8%	10.1%	11.5%	36.1%	8.5x	7.6x	23.6x	21.2x	43.7x
			PER	SONAL	FINANC	CE & M	OBILE V	VALLE	TS						

Consumer Solutions – Transaction Activity







SELECT RECENT M&A TRANSACTIONS¹

Date	Target/Issuer	Buyer	Description	Enterprise Value (\$m)
12/20/2019	Unboxed	Facebook	Provider of an online application to improve the mobile shopping and product review experience.	NA
12/15/2019	BrickX	Thundering Herd	Provider of an online trading platform for retail-sized investments in residential property.	NA
12/11/2019	Haven Money	Credit Karma	Provider of a wealth management platform that automates savings and investments.	NA
12/09/2019	Gradifi	E*Trade	Provider of an online platform for student loan debt problems.	\$30
12/05/2019	Kortio	Swegaming	Provider of credit intermediary services for short term loans.	NA
12/02/2019	Newchip	KingsCrowd	Provider of an online investment marketplace to aggregate equity crowdfunding.	NA
11/20/2019	Honey Science	PayPal	Provider of an online platform designed to offer discount coupons for online shopping.	\$4,000
11/20/2019	Bequest	MetLife	Provider of legal forms and legal information.	NA
09/24/2019	Simpletax	WealthSimple	Provider of a web-based tax preparation platform.	NA
09/13/2019	GoHealth	Centerbridge Partners	Provider of technology based health insurance services.	\$1,500
08/04/2019	Credible Labs	Fox Corporation	Provider of an online lending marketplace.	\$397
07/31/2019	Caviar	DoorDash	Provider of an online platform that enables users to order food from local restaurants in the US.	\$410
07/04/2019	Fundimmo	Atland	Provider of a real estate crowdfunding platform.	NA
05/22/2019	Live Auctioneers	Cove Hill Partners	Provider of an online auction site for collectibles, antiques, jewelry, and art auctions.	NA
05/16/2019	TodayTix	Great Hill Partners	Provider of a mobile commerce platform for last-minute theater tickets.	NA

SELECT RECENT PRIVATE PLACEMENT TRANSACTIONS²

Announced Date	Target/Issuer	Investor(s)	Description	New Money (\$m)
11/20/2019	1Debit	General Atlantic	Provider of a mobile app that rewards users with cash immediately.	\$500
11/14/2019	Refundit	Amadeus Ventures	Provider of an application that lets tourists get value-added tax refunds online.	\$10
10/28/2019	Peer Street	Colchis Capital	Provider of a platform for investing in real estate backed loans.	\$60
10/23/2019	Truebill	Eldridge Industries	Provider of an application that enables users to find, track, and cancel paid subscriptions.	\$15
10/21/2019	Figure Technologies	DCM Ventures	Provider of home equity release solutions.	\$103
10/01/2019	Rapyd	Oak HC/FT, Tiger Global	Provider of a cardless mobile payment network that provides modular payment services.	\$100
10/01/2019	Atom Finance	General Catalyst Partners	Provider of an online investment research platform for individuals.	\$11
09/30/2019	Digit	General Catalyst	Provider of a spend management application designed to help increase personal savings.	\$28
09/16/2019	Greenlight Financial Technology	Drive Capital	Provider of a smart debit card for parents and families.	\$54
09/10/2019	The Earnest Research Company	Pivot Investment	Provider of a data platform that helps customers understand consumer economic trends.	\$15
09/05/2019	Happy Money	CMFG Ventures	Provider of savings and debt software.	\$70
09/04/2019	Even Financial	Citi Ventures, Goldman Sachs	Provider of a supply side platform for the marketplace lending (P2P) market.	\$26
08/27/2019	Toss	Kleiner Perkins, Ribbit Capital	Provider of a mobile application offering P2P transfers and personal financial management.	\$80
08/21/2019	Tala	RPS Ventures	Provider of a mobile-based financial application for under-served populations.	\$110
08/08/2019	Monzo	Y Combinator	Provider of a mobile banking application that enables consumers to control their spending.	\$143

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Sources

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