



Technology, Media & Telecom

FINANCIAL TECHNOLOGY SECTOR REVIEW | Q1 2019

HW Harris Williams

HW Financial Technology Introduction

HARRIS WILLIAMS (“HW”) AS A FIRM

- Founded in 1991
- 300+ professionals across eight offices globally
- 150+ 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
- 41 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, Data Center 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

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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 700+ M&A transactions completed in the last 12 months globally
- Consolidation has accelerated as the sector matures and is expected to continue as fintech market leaders reach scale and look to pursue inorganic add-on opportunities, or become part of larger entities themselves
- Payment processors are positioning for market share in an expanding global opportunity, and continue to seek opportunities to differentiate their solutions as payments continue to migrate online and into industry-specific software driven environments, exemplified by two blockbuster deals that fundamentally change the payment processing landscape that were announced in Q1'19
- 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 financial management and payment processing
- Corporations globally are eager to optimize B2B transactions and are investing in cloud-based software solutions that improve procurement, supply chain, and settlement activities, as well as working capital exchanges that streamline corporate finance functions
- The banking and insurance industries are undergoing significant transformation as financial institutions adopt software solutions to defend against competitive unbundled offerings, improve operational workflows, and enhance client experience across business lines
- Consumer adoption of digital and mobile payment and 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

Financial Technology Taxonomy

ENTERPRISE AND COMMERCIAL



Solutions focused on supporting B2C and B2B payments and financial activity, and serving the financial needs of enterprises of all sizes



PAYMENTS B2B TRANSACTIONS FINANCIAL SOFTWARE

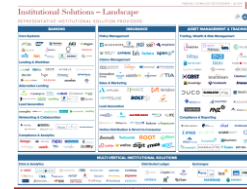
Select Market Participants



INSTITUTIONAL



Solutions focused on serving the specific operational and compliance needs of banks, insurance companies, and asset managers



BANKING INSURANCE ASSET MGMT. / TRADING

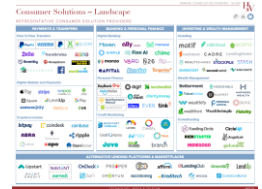
Select Market Participants



CONSUMER

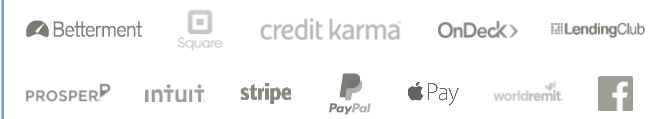


Solutions focused on delivering improved financial and payment experiences, personal wealth management, and access to consumer loans



PAYMENTS PERSONAL FINANCE INVESTING

Select Market Participants



SELECT RECENT HW FINANCIAL TECHNOLOGY TRANSACTIONS



has received a 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 estate



has been acquired by
LIGHTYEAR CAPITAL & OAK HC/FT

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



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 professionals



has been acquired by



Provider of member management software and payment processing solutions for non-profit organizations, camps, and sports leagues



has been acquired by
PROVIDENCE EQUITY & GSU GREATER SOUTHERN VENTURES

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



has received a majority investment from
GENSTAR CAPITAL, LLC

Provider of youth sports management software and integrated payments solutions



has received a majority investment from
INSIGHT VENTURE PARTNERS

Provider of integrated payments and member management solutions for faith-based and non-profit organizations



has been recapitalized by



Provider of integrated SaaS and payment solutions for health clubs and fitness centers

Case Study: PayIt

HW's TMT Group advised PayIt on its strategic investment from Insight Partners.



has received a strategic
investment from



COMPANY OVERVIEW

PayIt is a leading provider of next generation integrated digital government software and payment solutions, designed to improve government operations, revenue collection, and citizen engagement.

Through its highly configurable and extensible rules-based SaaS platform, PayIt improves the way citizens interact with government by simplifying the maze of government agencies to provide users with an intuitive, contextual experience.

The Company's solution seamlessly integrates across existing technology infrastructure to connect disparate systems and data, making government smarter, modern, and more convenient for all constituents.

RELEVANT SUB-SECTORS

FINANCIAL
TECHNOLOGY

GOVERNMENT
TECHNOLOGY

SAAS

PAYMENTS

MOBILE

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Enterprise & Commercial Market Observations¹

PAYMENT NETWORKS	<p>Key Public Comps</p> <p>Enterprise Value / LTM Rev. LTM EBITDA 2019P EBITDA</p> <p>9.6x 24.9x 22.9x</p>	<p>Stock Price Performance</p> <p>— S&P 500 — Payment Networks</p>	<p>Transaction Spotlight</p> <p>February 15, 2019</p> <p>Capital Raised: \$85M</p>	<p>Market Observations</p> <p>Payment networks that facilitate next generation payment channels continue to benefit from accelerating migration of payments to digital environments</p> <p>Payment networks are increasingly focused on enhancing their solution offering to deliver fast, frictionless, and secure payment processing as they seek to grow across end-markets and geographies</p> <p>Mastercard, and Visa look to Increase U.S. Credit Card Rates</p>
PAYMENT PROCESSING	<p>Key Public Comps</p> <p>Enterprise Value / LTM Rev. LTM EBITDA 2019P EBITDA</p> <p>5.2x 15.4x 14.3x</p>	<p>Stock Price Performance</p> <p>— S&P 500 — Payment Processing</p>	<p>Transaction Spotlight</p> <p>January 28, 2019</p> <p>Capital Raised: \$100M</p>	<p>Market Observations</p> <p>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</p> <p>As payments continue to shift to digital platforms, software providers are keen to improve their competitive position by incorporating processing functionality directly into their solutions</p> <p>Payments Unlock Giant Opportunities In Deceptively Small Markets</p>
B2B TRANSACTIONS	<p>Key Public Comps</p> <p>Enterprise Value / LTM Rev. LTM EBITDA 2019P EBITDA</p> <p>3.1x 11.6x 9.5x</p>	<p>Stock Price Performance</p> <p>— S&P 500 — B2B Transactions</p>	<p>Transaction Spotlight</p> <p>March 27, 2019</p> <p>Capital Raised: \$50M</p>	<p>Market Observations</p> <p>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 and reduce payment friction</p> <p>Businesses continue to adopt solutions that improve collections and settlement, increase transparency across their entire ecosystem, and improve regulatory compliance and documentation</p> <p>The Future of B2B Payments</p>
DATA & COMPLIANCE	<p>Key Public Comps</p> <p>Enterprise Value / LTM Rev. LTM EBITDA 2019P EBITDA</p> <p>6.4x 19.3x 15.9x</p>	<p>Stock Price Performance</p> <p>— S&P 500 — Data & Compliance</p>	<p>Transaction Spotlight</p> <p>January 11, 2019</p> <p>Capital Raised: \$60M</p>	<p>Market Observations</p> <p>As financial services become increasingly digital, industries continue to implement stringent compliance requirements that are driving the adoption of software solutions to automate data collection and meet compliance demands</p> <p>Heightened awareness of and focus on privacy and data protection in the digital age is driving the need for innovative solutions that offer security and improved visibility</p> <p>How big data really fits into lending</p>
PAYROLL & BENEFITS	<p>Key Public Comps</p> <p>Enterprise Value / LTM Rev. LTM EBITDA 2019P EBITDA</p> <p>7.8x 19.7x 15.1x</p>	<p>Stock Price Performance</p> <p>— S&P 500 — Payroll & Benefits</p>	<p>Transaction Spotlight</p> <p>February 4, 2019</p> <p>Enterprise Value: \$12B</p>	<p>Market Observations</p> <p>Enterprises across all markets continue to transition from legacy offerings to cloud-based solutions that improve operational efficiency and are capable of delivering solutions to evolving industries and changing work environments</p> <p>Incumbents and challengers alike continue to be acquisitive of solutions that expand their TAM and enable them to offer more integrated workforce management and benefits administration across industries</p> <p>Visa, PayActiv Launch Real Time Payroll</p>



Institutional & Consumer Market Observations¹

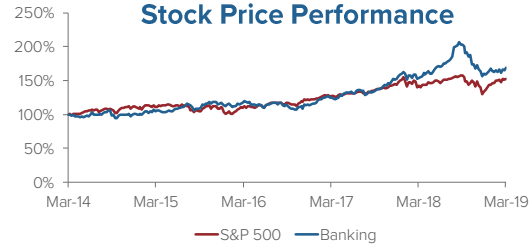
BANKING

Key Public Comps



Enterprise Value /		
LTM Rev.	LTM EBITDA	2019P EBITDA
5.5x	19.3x	19.6x

Stock Price Performance



Transaction Spotlight

January 10, 2019



Capital Raised: \$300M

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 software upstarts. Digital-native banking platforms that offer consumers with flexible and convenient products are gaining prominence, putting additional pressure on incumbents, particularly as consumer loyalty remains low.

[The Big Tech/FinTech Disruption](#)

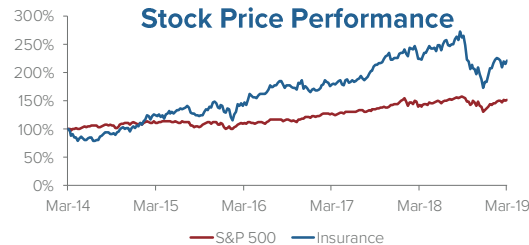
INSURANCE

Key Public Comps



Enterprise Value /		
LTM Rev.	LTM EBITDA	2019P EBITDA
4.3x	15.4x	14.5x

Stock Price Performance



Transaction Spotlight

January 15, 2019



Capital Raised: \$10M

Market Observations

Insurance carriers 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.

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.

[What will happen to insurance and insurtech in 2019](#)

AMT

Key Public Comps



Enterprise Value /		
LTM Rev.	LTM EBITDA	2019P EBITDA
7.8x	19.7x	15.1x

Stock Price Performance



Transaction Spotlight

January 9, 2019



Enterprise Value: \$200M

Market Observations

AMT organizations continue to seek software solutions that enhance research capabilities through data and analytics, improve liquidity and access to capital, and streamline investor relations functions and customer engagement.

Wealth managers and financial advisors continue to use partnerships and M&A to fend off online investment platforms and robo-advisors.

[Younger, faster, digital-first: Cracking the new advice code](#)

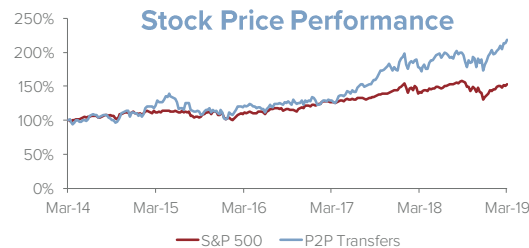
P2P TRANSFERS

Key Public Comps



Enterprise Value /		
LTM Rev.	LTM EBITDA	2019P EBITDA
4.8x	21.8x	16.4x

Stock Price Performance



Transaction Spotlight

March 5, 2019



Capital Raised: \$200M

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 solutions providers of all scale compete to monetize rapidly growing payment volumes.

[5 key developments in P2P adoption](#)

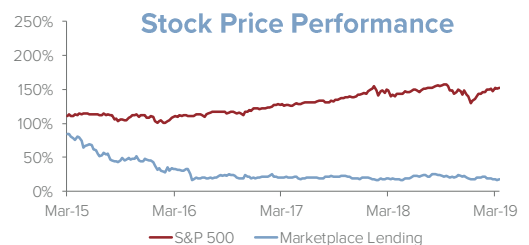
MARKETPLACE LENDING

Key Public Comps



Price /	
2018E Book Value	2019P Book Value
1.4x	1.4x

Stock Price Performance



Transaction Spotlight

January 14, 2019



Capital Raised: \$65M

Market Observations

Persistently low cost of capital has enabled traditional lenders to maintain competitiveness, forcing challengers to find unique ways to differentiate their offerings such as rapid and differentiated credit decisioning, alternative funding sources, and new product offerings.

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

[Lending-as-a-Service - Next generation Marketplace Loans](#)

Select Financial Technology M&A Transactions¹

Announced January 16, 2019

First Data **fiserv.**

Enterprise Value: \$38.5B EV / Rev: 4.1x
Rev: \$9.5B EV / EBITDA: 12.8x

Fiserv's pending acquisition of First Data

Payment Processing



- First Data is a global financial services company that specializes in merchant acquiring technology to facilitate payment acceptance and processing for over six million businesses
- First Data serves enterprise customers in 118 countries and processes over 2,500 financial transactions per second, resulting in over \$2.4 trillion of processed payment volume annually
- The highly complementary combination is expected to generate approximately \$900 million in run-rate cost synergies and over \$500 million in revenue synergies, along with over \$4 billion of free cash flow in the near-term

Announced February 12, 2019

EllieMae **THOMABRAVO**

Enterprise Value: \$3.7B EV / Rev: 7.7x
Rev: \$480M EV / EBITDA: 42.8x

Thoma Bravo's pending take private acquisition of Ellie Mae

Banking



- Ellie Mae is a leading cloud-based provider of workflow solutions for the mortgage finance industry designed to streamline and simplify the lending and home buying process
- Ellie Mae's software and technology solutions are utilized by over 240,000 mortgage professionals to complete over 20 million transactions and close over 2.5 million loans annually
- Thoma's \$3.7 billion acquisition represents a nearly 50% premium to the 30-day average share price, highlighting the significant opportunity to continue to improve and automate digital mortgage origination solutions through increased investment

Closed March 4, 2019

SENTRAL EDUCATION **globalpayments**

Enterprise Value: NA EV / Rev: NA
Rev: NA EV / EBITDA: NA

Global Payments' acquisition of Sentral Education

Payment Processing



- Sentral Education is a cloud-based student information system that streamlines administrative workflows and student management solutions, including integrated billing and payments
- Sentral Education, headquartered in Sydney, Australia, serves over 3,000 schools across Australia and offers modules for administration, attendance, assessment, reporting, payments, and parent portals
- Global's acquisitions represents a continuation of its strategy to bolster its software-driven payment capabilities while expanding its vertical reach and broadening its geographic footprint

Announced March 5, 2019

nvoicepay **FLEETCOR**

Enterprise Value: NA EV / Rev: NA
Rev: NA EV / EBITDA: NA

FLEETCOR's acquisition of Nvoicepay

B2B Transactions



- Nvoicepay is a leading provider of cloud-based B2B payment and accounts payable automation solutions for enterprises that enable them to pay their customers electronically
- Nvoicepay integrates seamlessly into existing ERP systems to streamline supplier payments, serving over 400 businesses globally through network connections to some of the largest enterprises, including Amazon, FedEx, and ADP
- FLEETCOR's acquisition expands its B2B capabilities and follows several related recent acquisitions that make FLEETCOR one of the most comprehensive AP automation software providers globally

Announced March 18, 2019

worldpay **FIS**

Enterprise Value: \$43.6B EV / Rev: 10.8x
Rev: \$3.9B EV / EBITDA: 26.9x

FIS' acquisition of Worldpay

Payment Processing



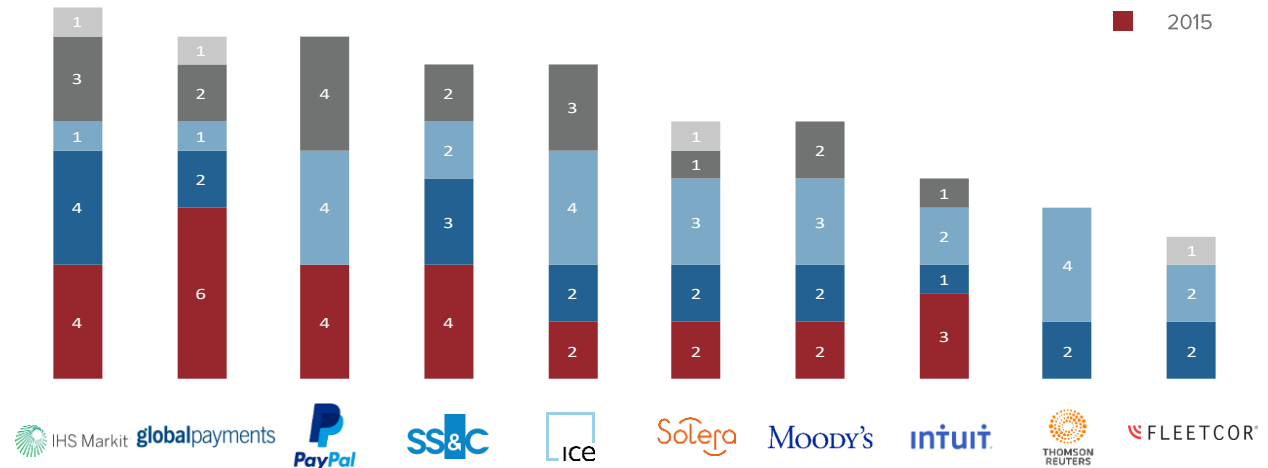
- Worldpay is a leading provider of payment processing technology and services, including card present, online, and contactless payments that enable merchants to accept payments across channels and geographies
- Worldpay, which merged with Vantiv in 2018, processes over \$1.6 trillion in payment volume across over 42 billion transactions annually and serves merchants in over 145 countries
- The combination marks further consolidation within the payment processing landscape and greatly expands FIS' capabilities within merchant acquiring and processing services, while broadening Worldpay's distribution footprint

Financial Technology Acquisition Activity

MOST ACTIVE STRATEGIC ACQUIRERS OF FINTECH ASSETS BY VOLUME²

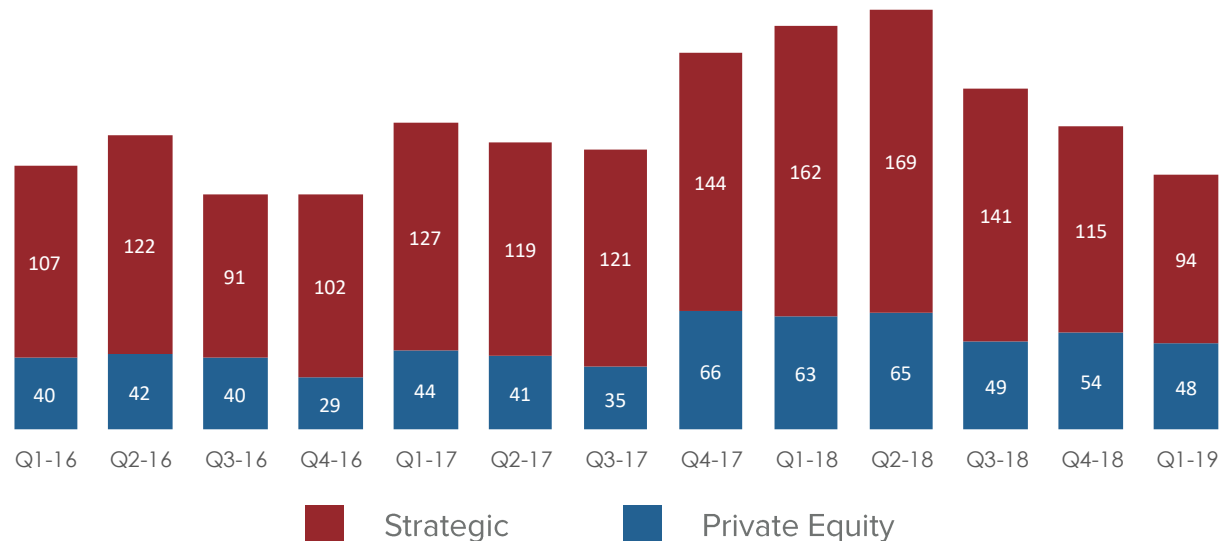
2019
2018
2017
2016
2015

- The 10 most active strategic fintech consolidators have acquired over 95 companies since 2015.
- This group completed four fintech acquisitions in the first quarter of 2019, in-line with Q1 2018 activity levels.
- Established vendors are aiming to drive scale, augment their capabilities, limit disintermediation, and capture internal operational efficiencies.



GLOBAL FINANCIAL SOFTWARE M&A ACTIVITY²

- Across financial software, there were 142 M&A transactions closed in Q1 2019, with private equity transactions representing 34% of total deal volume.
- Strategic acquirers pursued targets at a more normalized pace in terms of number of transactions, but are more aggressively seeking transformative assets of scale, evidenced by the two blockbuster deals announced in Q1 2019, Fiserv's acquisition of First Data, and FIS' acquisition of Worldpay.





Enterprise & Commercial Solutions – Landscape

REPRESENTATIVE ENTERPRISE & COMMERCIAL SOLUTION PROVIDERS

PAYMENTS

PAYMENT PROCESSING & NETWORKS

Payment Networks



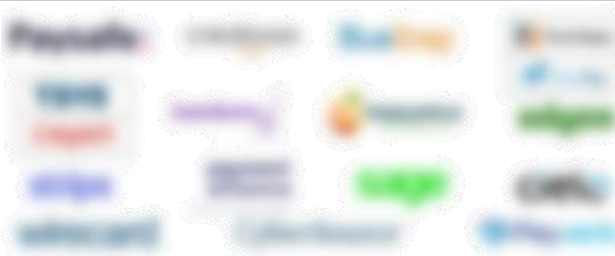
Traditional Payment Processors



Payment Security



Payment Gateways / ISOs



Vertical Specific Payments

SEE NEXT PAGE
FOR VERTICAL
PAYMENTS MARKET
MAP DETAIL

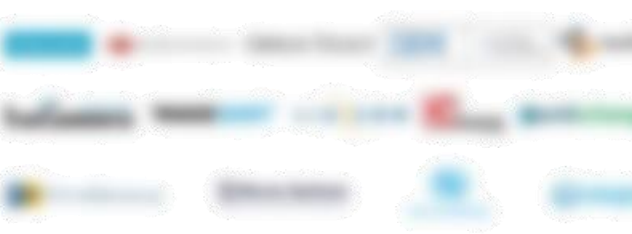


B2B TRANSACTIONS

Transfers & Remittance



Supply Chain & EDI



Bill Payment



Subscription Billing



Virtual Credit Cards



OTHER E&C FINANCIAL SOFTWARE

FINANCIAL SOFTWARE

Data & Compliance



Real Estate & Leasing



SMB Marketplace Lending



Accounting, Tax, & Treasury



HR / Payroll / Benefits



Ultimate
SOFTWARE



Vertical Specific Payments Solutions – Landscape

REPRESENTATIVE VERTICALLY-FOCUSED INTEGRATED SAAS AND PAYMENTS PROVIDERS



Key Themes for Vertical-Specific Payments

- Emergence of digital payment gateways and card not present transactions.
- Software vendor addition of payment facilitator (PayFac) models.
- Increasing subscription and recurring payments in B2C and B2B environments.
- Time sensitive and/or convenience driven.
- Payment processing bundled with software-based sale.
- Regulatory specific reporting and compliance.
- Meaningful payment processing volumes.

Note: Logos are representative of vertical participants and not comprehensive.



Enterprise & Commercial Solutions – Trading Comparables

VALUATION¹

As of March 29th, 2019

(\$ in millions)

Fintech Sub-Vertical	Company	Ticker	Enterprise Value	Market Capitalization	% of 52 Week High	1-Year Stock Performance	3-Year Stock Performance	Revenue Growth		2018E EBITDA Margin	Enterprise Value /				Price / Earnings
								2018E	2019P		'18E Rev.	'19P Rev.	'18E EBITDA	'19P EBITDA	
B2B TRANSACTIONS															
Transfer/Remit	Western Union	WU	\$10,926	\$8,121	87.2%	(3.1%)	(1.2%)	0.9%	1.0%	24.8%	2.0x	1.9x	7.9x	7.7x	9.9x
eInvoicing, EDI, RCM	Open Text Corporation	OTEX-CA	\$12,407	\$10,359	96.3%	12.8%	54.7%	8.1%	1.7%	36.6%	4.4x	4.3x	11.9x	11.3x	40.5x
	Cass Information Systems	CASS-US	\$474	\$686	76.1%	(2.7%)	20.8%	10.6%	NA	26.8%	3.1x	NA	11.6x	NA	23.3x
	Basware	BASIV-FI	\$372	\$354	45.3%	(54.5%)	(41.3%)	(0.8%)	0.4%	NM	2.2x	2.2x	NM	NM	NM
Fleet Payments	FleetCor Technologies	FLT	\$25,900	\$20,913	99.2%	23.9%	67.1%	8.2%	7.1%	56.4%	10.6x	9.9x	18.9x	17.4x	28.0x
	WEX	WEX	\$10,132	\$8,242	93.9%	25.2%	133.3%	19.4%	13.8%	39.3%	6.8x	6.0x	17.3x	14.0x	49.7x
B2B Transactions Median			\$10,529	\$8,181	90.5%	5.1%	37.8%	8.1%	1.7%	36.6%	3.7x	4.3x	11.9x	12.6x	28.0x
PAYMENTS															
Payment Networks	Visa	V	\$363,200	\$329,301	98.6%	32.2%	108.8%	13.3%	10.2%	68.6%	17.1x	15.5x	24.9x	21.9x	34.8x
	Mastercard	MA	\$243,395	\$238,204	99.1%	37.9%	157.4%	19.6%	12.1%	59.0%	16.3x	14.5x	27.6x	23.9x	42.1x
	American Express	AXP	\$127,846	\$91,558	95.3%	18.4%	81.1%	21.5%	0.9%	34.9%	3.0x	2.9x	8.5x	NA	13.8x
	Discover Financial Services	DFS	\$37,044	\$23,072	88.0%	0.6%	43.5%	11.3%	(11.0%)	NA	2.9x	3.2x	NA	NA	9.1x
Payment Processing	Fidelity National Information Services	FIS	\$45,201	\$35,926	99.1%	16.6%	78.1%	(7.7%)	(0.2%)	37.1%	5.4x	5.4x	14.4x	13.8x	44.4x
	Fiserv	FISV	\$41,859	\$34,374	99.6%	24.1%	76.4%	2.2%	6.2%	35.7%	7.2x	6.8x	20.1x	17.6x	30.8x
	Alliance Data Systems	ADS	\$30,200	\$9,136	68.9%	(22.3%)	(18.3%)	0.9%	3.2%	30.6%	3.9x	3.8x	12.7x	14.6x	10.0x
	Global Payments	GPN	\$26,340	\$21,333	98.6%	22.8%	124.9%	(15.3%)	32.5%	39.1%	7.8x	5.9x	20.0x	16.5x	48.1x
	Total System Services	TSS	\$20,508	\$16,456	92.4%	9.3%	103.1%	(18.3%)	0.9%	31.0%	5.1x	5.0x	16.4x	14.0x	30.3x
	Cielo	CIEL3-BR	\$8,784	\$6,551	38.0%	(61.3%)	(63.7%)	(12.0%)	(13.8%)	39.4%	2.7x	3.2x	7.0x	8.9x	7.7x
	Euronet Worldwide	EEFT	\$7,157	\$7,261	97.6%	81.9%	93.7%	12.6%	15.3%	18.6%	2.8x	2.4x	15.2x	11.7x	33.5x
Payments Median			\$37,044	\$23,072	97.6%	18.4%	81.1%	2.2%	3.2%	36.4%	5.1x	5.0x	15.8x	14.6x	30.8x
FINANCIAL SOFTWARE															
Payroll & Benefits	Automatic Data Processing	ADP	\$69,785	\$68,991	99.9%	41.7%	79.4%	8.2%	6.3%	23.4%	5.0x	4.7x	21.6x	19.7x	38.8x
	Paychex	PAYX	\$28,637	\$28,411	97.9%	30.4%	45.9%	8.2%	13.4%	41.3%	8.1x	7.2x	19.7x	17.6x	28.1x
	Paycom Software	PAYC-US	\$10,925	\$10,917	97.9%	77.5%	447.8%	30.8%	25.8%	35.9%	19.3x	15.3x	NM	37.7x	NM
	Paylocity	PCTY	\$4,746	\$4,659	95.2%	73.8%	186.6%	25.1%	21.5%	14.8%	11.4x	9.3x	NM	32.4x	NM
	WageWorks	WAGE	\$743	\$1,498	66.2%	(15.0%)	(23.0%)	NA	NA	NA	NA	1.6x	NA	5.4x	39.2x
Data & Compliance	Thomson Reuters	TRI	\$40,050	\$29,574	99.4%	39.0%	34.5%	(51.5%)	7.9%	27.1%	7.3x	6.7x	26.8x	28.8x	NM
	Moody's	MCO	\$38,929	\$33,871	95.4%	12.9%	92.9%	5.7%	4.9%	47.7%	8.8x	8.4x	18.4x	17.5x	26.9x
	Experian	EXPN-GB	\$27,904	\$24,400	96.5%	23.1%	55.0%	NA	NA	NA	NA	5.5x	NA	15.8x	31.6x
	TransUnion	TRU	\$16,496	\$12,330	82.8%	16.5%	146.2%	19.8%	12.6%	35.4%	7.1x	6.3x	20.1x	16.0x	46.1x
	Equifax	EFX	\$16,637	\$14,173	84.2%	(1.9%)	4.3%	1.5%	2.3%	23.6%	4.9x	4.8x	20.7x	14.2x	48.0x
Financial Software Median			\$22,270	\$19,287	96.0%	26.8%	67.2%	8.2%	10.3%	31.2%	7.7x	6.5x	20.4x	17.5x	38.8x



Enterprise & Commercial Solutions – Transaction Activity

SELECT RECENT M&A TRANSACTIONS¹

Date	Target/Issuer	Buyer	Description	Enterprise Value (\$m)
Pending	Worldpay	Fidelity National Information Services	Provider of payment processing services for merchants,	\$35,000
Pending	Ultimate Software	Hellman & Friedman	Provider of cloud based human capital management solutions in the United States.	\$11,790
Pending	First Data Corporation	Fiserv	Provider of electronic commerce and payment solutions in the United States.	\$38,481
03/28/2019	PayIt	Insight Partners	Provider of a cloud-based mobile payment platform for governments.	NA
03/28/2019	File990	Togetherwork	Provider of tax filing software for non-profit organizations	NA
03/12/2019	Ethoca Ltd	MasterCard, Inc.	Provider of eCommerce collaborative cloud based technology platform to eliminate fraud.	NA
03/07/2019	Blackboard Transact	Reverence Capital Partners	Provider of campus engagement and payments solutions.	NA
03/05/2019	Nvoicepay	Fleetcor Technologies	Provider of cloud-based payment automation software.	NA
02/22/2019	Euclid Technology	Fullsteam Operations	Provider of association management software solutions.	NA
02/07/2019	CTM Software	MRI Software	Provider of residential real estate workflow and transaction management solutions.	NA
02/06/2019	Indix Corporation	Avalara	Provider of an artificial intelligence platform for product data information.	NA
02/04/2019	Sentral Pty Ltd.	Global Payments, Inc.	Provider of school administration software designed for all school environments in Australia.	NA
01/15/2019	Sage Payroll Solutions	iSolved HCM	Provider of payroll management software solutions in the United Kingdom.	\$94
01/09/2019	CenPOS	Elavon	Provider of integrated payment software solutions to large enterprises in the United States.	NA
01/08/2019	First Billing Services	Paya	Provider of electronic bill & payment solutions to municipal government clients in the United States.	\$58

SELECT RECENT PRIVATE PLACEMENT TRANSACTIONS²

Announced Date	Target/Issuer	Investor(s)	Description	New Money (\$m)
03/27/2019	MineralTree	Great Hill Partners, 406 Ventures, Eight Roads	Provider of cloud-based automation software designed to automate B2B transactions.	\$50
03/26/2019	Alrwallex	DST Global	Provider of a cross-border payments and foreign exchange platform.	\$100
03/07/2019	Greenshades Software	SFW Capital Partners	Provider of payroll tax and human capital management information and software solutions.	NA
03/06/2019	The Aspire Software Company	Mainsail Partners	Provider of management software for property maintenance businesses.	NA
03/05/2019	Nvoicepay	Napier Park Financial Partners, Mosaik Partners	Provider of cloud-based payment automation software.	\$22
02/27/2019	Presto	Recruit Holdings, Romulus Capital, EG Capital	Provider of an enterprise front-office software platform for the hospitality industry.	\$30
02/26/2019	Kryon	Oak HC/FT, Vertex Ventures	Provider of robotic process automation platform offering continuous process optimization.	\$40
02/19/2019	ParkHub	Arrowroot Capital	Provider of parking management software.	\$13
02/15/2019	BillDesk	Visa, Temasek Holdings	Provider of a platform for online payments and bill payments in India.	\$1,530
02/12/2019	Nav, Inc.	Goldman Sachs, Point72 Ventures	Provider of free access to credit reports to small businesses.	\$44
01/29/2019	Stripe	Tiger Global Management, Sequoia Capital	Provider of an online payment platform to integrate electronic payments & enable secure transactions.	\$100
01/29/2019	Billd	LL Funds, RJT Credit	Provider of financial software designed to offer short-term loans to sub-contractors.	\$60
01/24/2019	GeoPhy	Index Ventures, Inkef Capital, Hearst Ventures	Provider of artificial intelligence powered real estate valuation solutions.	\$33
01/23/2019	Uplift	Madrone Capital Partners, Ridge Ventures	Provider of fintech solutions that helps travel brands.	\$123
01/09/2019	TaxJar	Insight Partners	Provider of a cloud-based sales tax automation platform to manage sales tax data.	\$60



Institutional Solutions – Landscape

REPRESENTATIVE INSTITUTIONAL SOLUTION PROVIDERS

BANKING

Core Systems



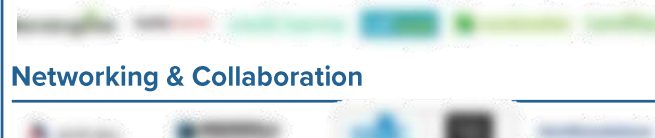
Lending & Workflow



Alternative Lending



Lead Generation



Networking & Collaboration



Compliance & Analytics



INSURANCE

Policy Management



Claims Management



Sales & Marketing



Lead Generation

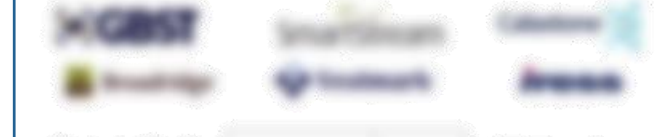


Online Distribution & Direct-to-Consumer



ASSET MANAGEMENT & TRADING

Trading, Wealth & Risk Management



Compliance & Reporting



MULTI-VERTICAL INSTITUTIONAL SOLUTIONS

Data & Analytics



Distributed Ledger



Exchanges





Institutional Solutions – Trading Comparables

VALUATION¹

As of March 29th, 2019 (\$ in millions)

Fintech Sub-Vertical	Company	Ticker	Enterprise Value	Market Capitalization	% of 52 Week High	1-Year Stock Performance	3-Year Stock Performance	Revenue Growth		2018E EBITDA Margin	Enterprise Value /				Price / Earnings
								2018E	2019P		'18E Rev.	'19P Rev.	'18E EBITDA	'19P EBITDA	
BANKING															
Core Systems	Temenos	TEMN-CH	\$10,989	\$10,211	77.7%	20.0%	178.7%	14.3%	16.7%	56.2%	13.1x	11.2x	23.3x	29.2x	NM
	Jack Henry & Associates	JKHY	\$10,669	\$10,664	84.4%	15.6%	66.4%	7.4%	2.0%	35.0%	6.7x	6.6x	19.3x	19.7x	34.8x
	CoreLogic	CLGX	\$4,727	\$2,957	66.1%	(17.8%)	11.7%	(3.4%)	(7.2%)	23.9%	2.6x	2.8x	11.1x	10.2x	25.2x
	ACI Worldwide	ACIW	\$4,344	\$3,760	94.6%	37.6%	69.6%	(1.4%)	9.4%	22.1%	4.3x	3.9x	19.5x	13.7x	NM
	Oracle Financial Services Software	532466-IN	\$3,869	\$4,172	73.0%	(15.2%)	(6.3%)	1.8%	8.8%	41.0%	5.5x	5.1x	13.4x	11.6x	22.3x
	Q2 Holdings	QTWO	\$2,965	\$3,016	96.1%	53.8%	215.3%	24.3%	27.6%	NM	12.3x	9.6x	NM	NM	NM
	Bottomline Technologies	EPAY	\$2,072	\$2,130	66.6%	30.3%	69.5%	13.3%	5.4%	13.1%	5.0x	4.7x	38.0x	19.6x	NM
Banking Median			\$4,344	\$3,760	77.7%	20.0%	69.5%	7.4%	8.8%	29.4%	5.5x	5.1x	19.4x	16.7x	25.2x
INSURANCE															
Technology & Underwriting	Guidewire Software	GWRE	\$7,116	\$7,797	88.8%	20.9%	79.1%	31.4%	5.5%	8.4%	9.7x	9.2x	NM	50.0x	NM
	Ebix	EBIX	\$2,143	\$1,486	54.6%	(35.1%)	23.5%	36.8%	22.3%	34.1%	4.3x	3.5x	12.6x	10.6x	16.7x
	Sapiens International	SPNS	\$781	\$762	94.9%	75.4%	34.0%	7.6%	9.9%	14.8%	2.7x	2.5x	18.2x	14.5x	NM
Insurance Median			\$2,143	\$1,486	88.8%	20.9%	34.0%	31.4%	9.9%	14.8%	4.3x	3.5x	15.4x	14.5x	16.7x
ASSET MANAGEMENT & TRADING															
Data & Analytics	RELX	REL-GB	\$50,360	\$41,697	91.5%	2.8%	16.9%	5.5%	2.5%	35.6%	5.0x	4.9x	14.2x	13.7x	22.8x
	Thomson Reuters	TRI	\$40,050	\$29,574	99.4%	39.0%	34.5%	(51.5%)	7.9%	27.1%	7.3x	6.7x	26.8x	28.8x	NM
	Moody's	MCO	\$38,929	\$33,871	95.4%	12.9%	92.9%	5.7%	4.9%	47.7%	8.8x	8.4x	18.4x	17.5x	26.9x
	SS&C Technologies Holdings	SSNC	\$23,378	\$15,822	97.5%	21.8%	102.7%	104.2%	37.8%	32.4%	6.8x	5.0x	21.1x	12.8x	NM
	MSCI	MSCI	\$19,310	\$16,581	99.9%	30.6%	175.5%	12.5%	7.0%	53.9%	13.5x	12.6x	25.0x	23.0x	35.1x
	FactSet Research Systems	FDS	\$9,788	\$9,316	99.3%	23.4%	62.4%	8.1%	5.8%	31.8%	7.1x	6.7x	22.3x	19.4x	30.9x
	Fair Isaac Corporation	FICO	\$8,835	\$7,746	98.6%	59.1%	164.7%	11.8%	8.3%	23.2%	8.3x	7.7x	35.9x	27.3x	NM
AMT	Broadridge Financial Solutions	BR	\$13,176	\$11,880	74.3%	(4.1%)	77.8%	0.7%	3.7%	20.4%	3.0x	2.9x	14.6x	13.5x	28.2x
	Envestnet	ENV	\$3,233	\$3,113	95.7%	12.7%	152.9%	18.8%	9.7%	11.7%	4.0x	3.6x	34.0x	17.9x	NM
Asset Management & Trading Median			\$19,310	\$15,822	97.5%	21.8%	92.9%	8.1%	7.0%	31.8%	7.1x	6.7x	22.3x	17.9x	28.2x



Institutional Solutions – Transaction Activity

SELECT RECENT M&A TRANSACTIONS¹

Date	Target/Issuer	Buyer	Description	Enterprise Value (\$m)
03/18/2019	Ctrl BV	Main Capital Partners BV	Provider of an online collaboration platform for financial service providers within the SME market.	NA
03/14/2019	PIEtec (MoneyGuide Pro)	Envestnet, Inc.	Provider of financial planning software used by financial advisors.	\$500
03/07/2019	MHB Bank AG	Raisin GmbH	Provider of banking services in Germany.	NA
03/05/2019	Merit Software Holdings Ltd	Cognizant Technology Solutions	Provider of an automated platform intended for tax, regulatory and claims services.	NA
03/04/2019	CurrencyVue	WorldFirst	Provider of forex risk management platform helping international payments and FX hedging.	NA
02/14/2019	WorldFirst	Ant Financial Services Group	Provider of foreign exchange, international payment and hedging services.	\$641
02/13/2019	Proactive Technologies	Abacus Group	Provider of IT services to over 120 investment firms in the United States.	NA
02/12/2019	Ellie Mae	Thoma Bravo	Provider of a cloud-based platform for the residential mortgage industry in the United States.	\$3,325
01/31/2019	PivotData/Sol Hedge	Broadridge Financial Solutions, Inc.	Provider of data warehouse and compliance reporting solutions for the investment community.	NA
01/23/2019	FiREapps (Rim Tech Inc.)	Kyriba Corporation	Provider of financial risk management solutions for corporate treasuries and government.	NA
12/13/2018	Avoka	Temenos	Provider of transaction experience management platform.	\$245
12/11/2018	7Park Data	Vista Equity Partners	Provider of a platform for contextualizing anonymous viewing, mobile, web, and purchasing data.	NA
12/03/2018	Rulebook	Verisk Analytics	Provider of definitive software suite for the Insurance market.	\$87
12/03/2018	AdvisoryWorld	LPL Financial	Provider of investment analytics, portfolio modeling and proposal generation technology.	\$28
11/27/2018	Exaxe	Majesco	Provider of specialist solutions for life, pension, wealth, health, and general insurance companies.	\$13

SELECT RECENT PRIVATE PLACEMENT TRANSACTIONS²

Announced Date	Target/Issuer	Investor(s)	Description	New Money (\$m)
03/14/2019	Capital Markets Gateway	StageDotO, Franklin Templeton, Shea Ventures	Provider of a workflow management and data analytics platform.	\$8
03/05/2019	Wefox Group	Mubadala Ventures, Creditease	Provider of a web-based service platform for viewing, adjusting & completing insurance contracts.	\$125
03/04/2019	Shift Technology	Bessemer Venture Partners, Accel, Iris Capital	Provider of AI-native solutions for the insurance industry.	\$60
02/25/2019	TheGuarantors	Global Founders Capital, Alven Capital Partners	Provider of a real estate insurtech platform for landlords and tenants.	\$15
02/14/2019	Inshur	Munich Re Ventures, MTech Capital	Provider of digital commercial auto insurance.	\$7
02/03/2019	Bud Financial Ltd	HSBC, Goldman Sachs, ANZ, InnoCells	Provider of a fintech platform helping banks connect their data to other financial service providers.	\$20
01/31/2019	Better Mortgage	American Express Ventures, Goldman Sachs	Provider of an online real estate mortgage lending platform.	\$70
01/30/2019	Mimiro (ComplyAdvantage)	Index Ventures, Balderton Capital	Provider of a machine-learning platform for analyzing financial risk.	\$30
01/30/2019	dv01	Pivot Investment Partners, Jefferies	Provider of financial analytics platform for transparency and insight into lending markets.	\$15
01/23/2019	Zafin Labs Technologies	Vistara Capital Partners, Beedie Capital Partners	Provider of financial services software for strategic pricing.	\$17
01/17/2019	Limelight Health	AXA Venture Partners, MassMutual Ventures	Provider of insurance underwriting and proposal platform for the employee benefits industry.	\$34
01/15/2019	Bond-Pro	Volition Capital, Roger Hurwitz	Provider of software technologies to insurance agencies.	\$10
01/07/2019	Clearcover	Cox Enterprises, American Family Ventures	Provider of an online car insurance platform.	\$43
01/04/2019	Finxact	Canapi, American Bankers Association	Provider of a cloud-based banking platform to redefine core banking systems.	\$30
01/04/2019	Utilant	Aquiline Technology Growth	Provider of loss control inspection and survey management software for P&C insurers.	\$8



Consumer Solutions – Landscape

REPRESENTATIVE CONSUMER SOLUTION PROVIDERS

PAYMENTS & TRANSFERS

Peer to Peer Transfers



Digital Wallets and Payments



Cryptocurrencies

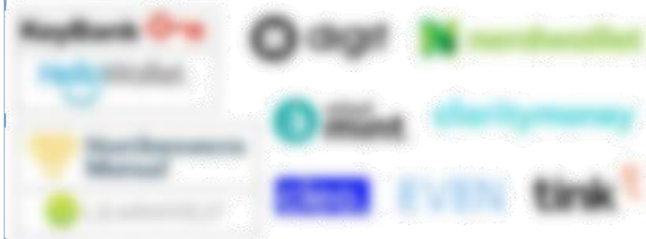


BANKING & PERSONAL FINANCE

Digital Banking



Personal Finance



Credit Monitoring

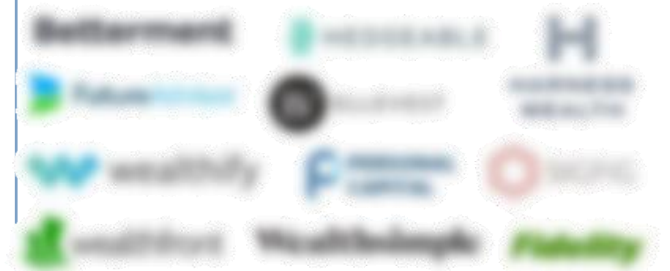


INVESTING & WEALTH MANAGEMENT

Investing



Wealth Management



Crowdfunding



ALTERNATIVE LENDING PLATFORMS & MARKETPLACES





Consumer Solutions – Trading Comparables

VALUATION¹

As of March 29th, 2019

(\$ in millions)

Fintech Sub-Vertical	Company	Ticker	Enterprise Value	Market Capitalization	% of 52 Week High	1-Year Stock Performance	3-Year Stock Performance	Revenue Growth		2018E EBITDA Margin	Enterprise Value /				Price / Earnings
								2018E	2019P		'18E Rev.	'19P Rev.	'18E EBITDA	'19P EBITDA	
PEER TO PEER															
P2P Transfers	PayPal	PYPL	\$117,833	\$121,849	99.3%	38.4%	168.1%	18.4%	16.1%	21.4%	7.6x	6.6x	35.6x	25.0x	NM
	Square	SQ	\$29,871	\$24,307	73.4%	56.7%	454.2%	49.0%	(31.6%)	3.6%	9.1x	13.2x	NM	NM	NM
	Western Union	WU	\$10,926	\$8,121	87.2%	(3.1%)	(1.2%)	0.9%	1.0%	24.8%	2.0x	1.9x	7.9x	7.7x	9.9x
	Green Dot Corporation	GDOT	\$2,235	\$3,195	64.9%	(4.3%)	164.7%	17.0%	8.9%	17.5%	2.1x	2.0x	12.3x	7.1x	27.8x
Marketplace Lending	On Deck Capital	ONDK	\$1,150	\$411	57.7%	1.3%	(23.3%)	13.5%	15.3%	22.4%	2.9x	2.5x	12.9x	21.7x	15.4x
	LendingClub	LC	\$734	\$1,298	66.4%	(14.0%)	(60.9%)	3.0%	(35.4%)	31.9%	0.6x	0.9x	1.9x	5.7x	NM
Peer to Peer Median			\$6,580	\$5,658	69.9%	(0.9%)	81.8%	15.3%	5.0%	21.9%	2.5x	2.2x	12.3x	7.7x	15.4x

PERSONAL FINANCE & MOBILE WALLETS

Personal Fin.	Intuit	INTU	\$67,514	\$67,157	99.4%	51.7%	154.0%	13.7%	10.2%	37.0%	10.7x	9.7x	29.0x	26.3x	46.5x
Mobile Wallets	Apple	AAPL	\$929,111	\$889,868	80.8%	13.4%	79.4%	10.3%	(2.0%)	30.5%	3.5x	3.6x	11.6x	12.1x	15.6x
	Amazon	AMZN	\$894,323	\$871,109	86.5%	23.9%	205.8%	30.9%	18.1%	14.3%	3.8x	3.3x	26.8x	21.0x	NM
	Microsoft	MSFT	\$859,029	\$897,112	96.8%	30.8%	118.4%	13.3%	11.3%	41.8%	7.3x	6.6x	17.5x	15.3x	27.4x
	Facebook	FB	\$442,948	\$394,925	75.7%	8.2%	45.6%	37.4%	23.6%	59.9%	7.9x	6.4x	13.3x	12.5x	22.0x
Personal Finance & Mobile Wallet Median			\$859,029	\$871,109	86.5%	23.9%	118.4%	13.7%	11.3%	37.0%	7.3x	6.4x	17.5x	15.3x	24.7x



Consumer Solutions – Transaction Activity

SELECT RECENT M&A TRANSACTIONS¹

Date	Target/Issuer	Buyer	Description	Enterprise Value (\$m)
03/07/2019	HotelTonight	Airbnb	Provider of hotel-booking services focused on making last minute trips comfortable.	NA
02/28/2019	Benefit Mobile	LaSalle Capital	Provider of a digital gift card platform.	NA
01/31/2019	AltheteTrax	Pineapple Payments	Provider of cloud based payments-focused software platform serving recreational sports leagues.	NA
01/23/2019	Flyt	Just Eat Holding	Provider of a mobile payment application for checking, splitting, and paying restaurant bills.	\$26
01/22/2019	Nutmeg	Convoy Global Holdings	Provider of digital wealth management services designed to provide easy access to investing.	\$319
01/15/2019	Pocket Concierge	American Express	Provider of restaurant booking service in Japan.	NA
01/15/2019	Voleo	Logan Resources	Provider of a social trading application designed to empower people to invest together.	NA
01/14/2019	Varo Money	Barclays	Provider of a mobile banking platform.	\$65
01/08/2019	Quovo	Plaid	Provider of financial software tools in the United States.	\$200
01/07/2019	Concardis	Advent International, Bain Capital	Provider of payment services intended to overcome barriers of traditional payment options.	\$6,000
01/01/2019	Funding Empire	Downing Four VCT	Provider of a peer-to-peer online lending platform that connects individual lender with businesses.	NA
12/06/2018	Danal	Boku	Provider of mobile identity authentication platform.	\$68
12/04/2018	NextGenVest	CommonBond	Provider of personal financial advisory services for financial aid, scholarships and student loans.	NA
11/21/2018	Neos Ventures	Aviva	Provider of connected home insurance services that help prevent the damage that leads to claims.	NA
11/20/2018	vaamo Finanz	MoneyFarm	Provider of an automated online investment platform for private investors.	NA

SELECT RECENT PRIVATE PLACEMENT TRANSACTIONS²

Announced Date	Target/Issuer	Investor(s)	Description	New Money (\$m)
03/26/2019	Ellevest	Aspect Ventures, MasterCard, Morningstar	Provider of a digital investment platform designed to help women take control of their investments.	\$33
03/25/2019	HoneyBook	Citi Ventures	Provider of an online software and payments platform for freelancers.	\$28
03/12/2019	STASH	Breyer Capital	Provider of digital investment platform.	\$65
03/11/2019	Knox Financial	Eric Silverman, Bob Glorioso	Provider of ownership investment platform intended to help in generating income from properties.	\$1,400
03/05/2019	Chime	DST Global, General Atlantic, Menlo Ventures	Provider of a mobile banking platform.	\$200
02/26/2019	YieldStreet	Edison Partners, Raine Ventures	Provider of a digital wealth management platform.	\$62
02/13/2019	Starling Bank	Merian Global Investors	Provider of a digital-only bank created to offer online banking services.	\$68
02/13/2019	Rapyd	Stripe, General Catalys, Target Global	Provider of digital wallet application to order cash and exchange foreign currencies.	\$40
02/07/2019	Tink AB	Insight Venture Partners, Sunstone, SEB	Provider of a personal finance management application for keeping track of money.	\$280
02/07/2019	Acorns Grow, Inc.	NBCUniversal, Comcast Ventures, BlackRock	Provider of a mobile application designed to automate micro investments into exchange traded funds.	\$105
02/06/2019	Raisin	Index Ventures, PayPal, Ribbit Capital	Provider of fintech software for savings and investment products.	\$114
02/05/2019	Personal Capital	IGM Financial	Provider of online wealth management services.	\$50
01/29/2019	Petal Card	Valar Ventures, Greyhound Capital	Provider of a no-fee credit card intended to make safe and affordable credit accessible.	\$30
01/22/2019	Dosh Holdings	Goodwater Capital, Western Technology	Provider of a card-linked offer platform which offers cash back options.	\$40
01/10/2019	N26 GmbH	Insight Venture Partners, GIC	Provider of mobile banking services.	\$300

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 acquired 	 strategic investment from 	 acquired by 	 acquired 	 acquired by 	 acquired 	 acquired by 	 acquired by 	 acquired 	 acquired by 	 acquired by 	 acquired 	 acquired by 	 acquired by 	 acquired by
 acquired 	 a wholly-owned affiliate of acquired by 	 invested in 	 majority investment from 	 acquired by 	 acquired by 	 acquired by 	 acquired by 	 acquired by 	 investment from 	 acquired 	 acquired by 	 merged with 	 investment from 	 acquired by
 acquired by 	 acquired 	 acquired by 	 investment from 	 acquired by 	 acquired by 	 acquired by 	 acquired by 	 acquired 	 majority investment from 	 growth investment from 	 acquired by 	 majority investment from 	 acquired by 	 majority investment from
 recapitalized by 	 acquired by 	 acquired 	 acquired by 	 acquired by 	 acquired by 	 acquired by 	 acquired by 	 recapitalized by 	 acquired by 	 acquired by 	 acquired by 	 acquired by 	 acquired by 	 acquired by
 acquired by 	 acquired by 	 acquired a majority stake in 	 acquired by 	 majority investment from 	 minority investment from 	 acquired by 	 acquired by 	 acquired by 	 acquired by 	 strategic investment from 	 merged with 	 acquired by 	 acquired by 	 acquired by
 acquired by 	 acquired by 	 acquired by 	 acquired by 	 acquired by 	 acquired by 	 acquired by 	 acquired by 	 acquired by 	 acquired by 	 acquired by 	 majority recapitalization by 	 recapitalized by 	 acquired by 	 acquired by
 acquired 	 acquired by 	 acquired by 	 acquired by 	 acquired by 	 acquired by 	 significant equity investment from 	 acquired by 	 acquired by 	 acquired by 	 minority investment from 	 acquired by 	 acquired by 	 strategic investment from 	 acquired by

Our Firm

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Sources

1. FACTSET.
2. PITCHBOOK.

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