

November 11, 2019

Stock Rating **BUY**  
Price Target **\$115.78**



Ticker	PYPL
Market Cap (MM)	\$119,090
EV/EBITDA	35.3x
P/E	47.6x

## 52 Week Performance



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# PayPal

## A Penny for Our Thoughts

Earlier in the year, when the FIG team was revisiting the theses for Visa, one company that piqued our interest with its differentiated strategy was PayPal. Given our overall confidence in the payment processing space, the team wanted to investigate the PayPal name further to see if it was a worthwhile addition to the portfolio.

The first goal of this report was to better understand the complex payments processing space that we began examining this year in our Visa report. While the last report focused on in-person payments, this report sheds further light on the e-commerce space. The second goal is to determine whether PayPal has strong economic moats, and if so, if PayPal would give the FIG portfolio meaningfully different exposure than Visa.

To guide our analysis, we posed three key questions regarding PayPal:

- I. What are the key differences between PayPal and Visa?
- II. Does PayPal have any advantages that can allow it to be a winner in the online payments space?
- III. Does PayPal have the managerial expertise to navigate the rapidly changing and competitive digital payments space?

Finally, we considered valuation using both a discounted cash flow model and a comparable companies analysis. To conclude, we believe that PayPal is a strong company with an attractive valuation that we recommend adding to our U.S. portfolio.

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## Company Overview: History of PayPal

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### Confinity

PayPal was originally founded in 1998 as Confinity by a six-person team that included Max Levchin, Perter Thiel, Luke Nosek, Ken Howery, Yu Pan, and Russel Simmons. The company's initial business was developing security software for handheld devices. The money transfer service that PayPal is known for today wasn't developed under Confinity until 1999. In 2000, Confinity merged with X.com, an online banking company founded by Elon Musk. Musk was primarily interested in the money transfer business that Confinity was developing and decided to terminate X.com's other banking operations to focus on the money transfer service. Musk replaced Peter Thiel as CEO of X.com and renamed the company to PayPal in 2001. The company executives took PayPal public in 2002 and listed at \$13 per share.

### eBay Acquisition

Shortly after PayPal's IPO, the company was acquired by eBay in October 2002. eBay paid \$1.5 billion for the company, with a valuation of \$23 per share. At the time, eBay was the dominant e-commerce player in the space and grew PayPal's presence on the site to several million users covering more than 70% of eBay's auctions. At the time, PayPal faced competition from eBay's subsidiary Billpoint, Citibank's c2it, Yahoo's PayDirect, Google Checkout, and Western Union's BidPay service. All of these competitors closed in subsequent years.

Over the next ten years, under eBay, PayPal expanded its business through several methods. In 2005, PayPal acquired VeriSign to expand its e-commerce business and provide additional security for its payment processes. In 2007, PayPal partnered with MasterCard to launch the PayPal Secure Card service, a software that allows customers to make payments on websites that do not accept PayPal directly. By the end of 2007, the company was generating \$1.8 billion in revenue annually.

### Growth of Merchant Services

By 2010, PayPal had achieved over 100 million active user accounts in 190 markets through 25 different currencies. While much of PayPal's focus was on acquiring consumer users, PayPal also continued to grow its Merchant Services division through providing e-payments for retailers on eBay. In 2011, PayPal announced that it would begin moving its business offline so that customers can make payments via PayPal in stores. Following this announcement, in 2012, the company also announced its partnership with Discover Card to allow PayPal payments to be made at any of the 7 million stores in Discover Card's network. By the end of 2012, PayPal had reached ~U.S.\$145 billion in total payment volume processed.

### Spin-Off from eBay

In September 2014, eBay announced that it would spin-off PayPal into a separate publicly-traded company. This move had been demanded of PayPal earlier in 2013 by activist hedge fund Icahn Enterprises. The spin-off was completed in July 2015. The existing eBay-PayPal agreement will end in 2020, after which PayPal will remain a payment option for shoppers on eBay, but will no longer be prominently featured and promoted. PayPal will also cease to process card payments for eBay at that time.

### Post-Spin-Off PayPal

Since its spin-off from eBay, PayPal has focused on building its platform and expanding its product and service offering. In 2015, PayPal acquired Xoom Corporation for ~\$1 billion. Xoom is a digital money transfer company that gives PayPal access to Xoom's 1.3 million active U.S. customers, strengthening PayPal's international business. Other acquisitions included international payment processors, money transfer businesses, and peer-to-peer payment platforms.

## Company Overview: PayPal Operations

### PayPal Platform Overview

PayPal operates a two-sided network where both merchants and consumers have PayPal accounts with stored balance functionality. This effectively means that PayPal is an end-to-end service provider, in contrast to traditional payment processors like Visa. PayPal's network includes PayPal, PayPal Credit, Braintree, Venmo, Xoom, and iZettle.

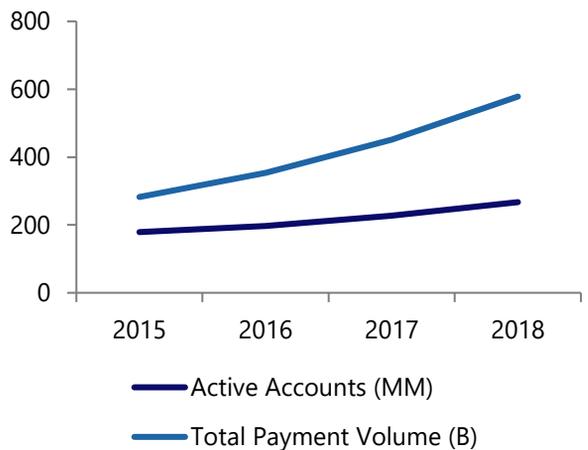
PayPal enables consumers to exchange funds with merchants using a variety of funding sources including bank accounts, PayPal account balances, a PayPal Credit account, a credit or debit card, or other stored value products such as coupons and gift cards. PayPal, Venmo, and Xoom products also allow for the transfer of funds between customers ("peer-to-peer" services).

On the merchant side of the transaction, PayPal also offers a variety of services similar to those of a traditional payment processor. The company provides authorization and settlement capabilities. PayPal's key value proposition to merchants is its ability to facilitate cross-border transactions securely and with reduced complexity compared to other similar providers.

PayPal earns revenues primarily by charging fees for completing payment transactions and other payment-related services. PayPal's revenue is driven by the volume of activity on its Payments Platform. Generally, PayPal does not charge consumers to fund or draw from their accounts. However, PayPal does charge fees for foreign currency exchange. PayPal also earns revenue on other value-add services such as PayPal Credit products, subscription fees, gateway services, and other services provided to merchants. Gateway services provide the technology that links a merchant's website to its processing network and merchant account and enables merchants to accept payments online with credit or debit cards.

### EXHIBIT I

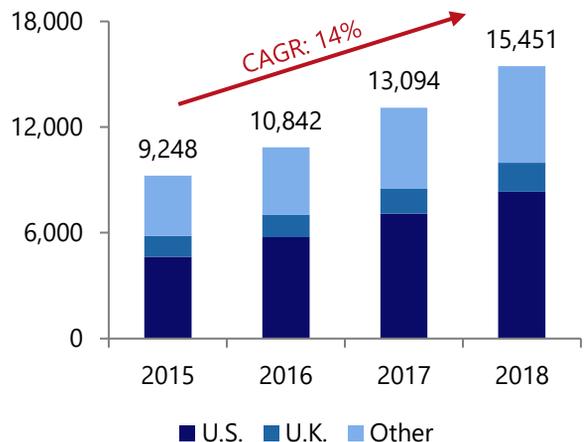
Key Performance Metrics



Source(s): Company Filings

### EXHIBIT II

Revenue by Geography (millions)



Source(s): Company Filings

## Recent Key Developments

### 1) Q2 2019 Guidance Revision and Investor Sentiment

In Q2 2019, PayPal revised guidance for FY2019 downwards, which resulted in a drop in the company's share price. This revision was primarily due to a slower than expected ramp-up of previous acquisitions and delayed integration of select partnerships.

In January 2019, PayPal announced that it had entered into a partnership with Paymentus, an electronic billing service. This partnership with Paymentus allows billers and billing platforms to present bills to customers through PayPal. This then also allows customers to use PayPal's system to pay for their bills. While PayPal had initially expected the launch of Paymentus through its app earlier this year, the integration has been delayed until the end of FY2019 or early FY2020.

In addition, PayPal's agreement with eBay is expected to partially expire in 2020, with the remainder of the contract expiring in 2023. In 2020, eBay will no longer promote PayPal as a preferred payment method, and by 2023, eBay will stop using PayPal entirely. Because eBay has been an important driver of PayPal's growth in the past, many investors are concerned about the ability of PayPal to grow without eBay's support. However, the FIG team believes that PayPal has demonstrated its ability to expand into different markets successfully. As of Q3 2019, eBay only represents 8% of PayPal's total payment volume compared to 29% in 2014. Furthermore, PayPal's other merchants have been growing their payment volume at a higher speed than eBay, demonstrating PayPal's increasing independence from eBay and its diversification among merchants.

### 2) PayPal's Strategic Investment Portfolio

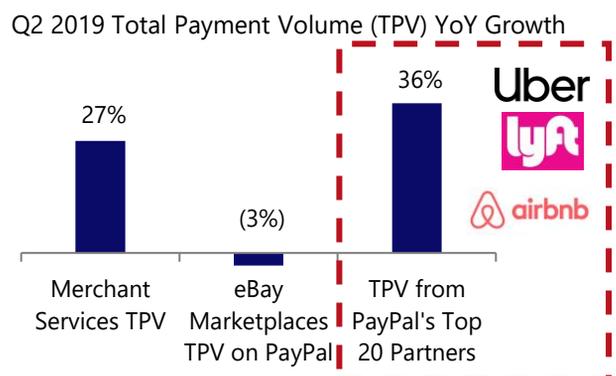
PayPal has over ~U.S.\$300 million in strategic investments, representing a portfolio of current or future commercial partnerships. The purpose of PayPal's strategic investments fund is to invest in companies that either have the potential to expand

PayPal's network or to become a merchant partner. For example, at the end of 2018, PayPal invested in Viva Republica, a fin-tech startup in Korea that created Toss. Toss is a peer-to-peer (P2P) money transfer service with over 10 million users. This would give PayPal access to the Korean market as well as technology that would improve its existing P2P services. In addition, PayPal is also invested in Uber. Uber currently uses PayPal's technology to process payments and is one of PayPal's fastest-growing merchant partners. PayPal's strategic investments provide it with unique access to forms of emerging technology and merchants.

### 3) Growth into China

In Q3 2019, PayPal announced that it had received approval to be the first foreign company licensed to provide online payment services in China. The People's Bank of China and other regulators have approved PayPal to acquire a controlling 70% equity interest in Guofubao Information Technology (GoPay). GoPay is a third party payments license holder with a focus on online gateway payments. This provides PayPal with a unique competitive advantage as mobile payments have posed a challenge to companies like Visa and Mastercard. Through its investment, PayPal can gain access to the world's largest e-commerce market.

#### EXHIBIT III



Source(s): Investor Presentation

## Industry Overview

The payments industry is highly competitive with companies covering all parts of the payments process between consumers and merchants. The traditional payment processors generally provide the network services that allow for the flow of funds and data. In contrast, companies like PayPal are considered gateway companies and are expanding to include "end-to-end" services.

Many competitors in the space are undergoing acquisitive growth to pursue new products and markets. Being able to grow rapidly allows companies to leverage scale and merchant networks. The key point of differentiation between these companies is

the technology they have to provide services more efficiently and at lower cost. Furthermore, these businesses rely on growing their merchant network to capture greater transaction volume. This means that there is often significant overlap between services that companies provide. In fact, these types of companies often benefit from partnerships because of the compatibility of technology. For example, while PayPal faces competition from other online and mobile payment-services providers, partnerships with these providers can allow PayPal to enter new markets, such as Asia.

### EXHIBIT IV

#### Payments Ecosystem



Source(s): Business Insider

## Key Question 1: What's the Difference Between PayPal and Visa?

PayPal's business model has some similarities but also inherent differences compared to Visa. Visa earns money from both the merchant and the issuing bank on each transaction, while PayPal generates revenue by charging a percentage to merchants to use PayPal's gateway. Payment networks like Visa primarily serve as the infrastructure of digital payments. On the other hand, PayPal is more of a facilitator in the sense that it makes the process for the consumer and merchant more user-friendly and can be used by businesses to help increase conversion rates. Although PayPal has its proprietary network, its total processed payment volume is multiples lower than Visa's, which partially explains the difference in profit margins. When a

consumer chooses to use a credit card at a PayPal terminal, Visa takes a percentage of the transaction. However, if a customer has their credit card linked to their PayPal account, PayPal collects the entire processing fee. Visa has an incredibly sticky relationship due to its worldwide presence and scale. PayPal, on the other hand, has built sticky relationships with customers based on consumer experience. By integrating Venmo, PayPal has introduced a platform that fills a necessary need in the digital economy. The relationship with users gets even stickier considering that PayPal has a direct relationship with both the consumer and the merchant on all of its transactions

### EXHIBIT V

Comparison of PayPal and Visa

	PayPal	Visa
How is revenue generated?	Charges fees on the merchant side and on foreign exchange transactions (2.9% + \$0.30 per transaction)	Earns money from both the merchant and issuing bank (~25bps)
Profit Margins	46.0%	96.7%
Total Debt/Equity	13.0%	48.9%
Unique offerings to consumers/merchants	Small business loans	Visa Account Updater
Difference in acquisition strategy	Trying to innovate in the payments space and add more value to users	Trying to extend reach of existing networks

Source(s): Company Reports, S&P Capital IQ

## Key Question 2: Does PayPal Have What It Takes to Be A Winner?

For Key Question 2, our analysis begins on the consumer side and shifts to the merchant side. It then concludes by examining PayPal's ability to out-invest competitors to determine if PayPal has an economic moat and if it can be maintained.

### Starting From the Consumer End

Given that PayPal's dominance is primarily in the U.S. and Europe, the company's value proposition was not initially clear as Canadian investors. However, after some research, the value proposition that PayPal delivers to customers has become more evident.

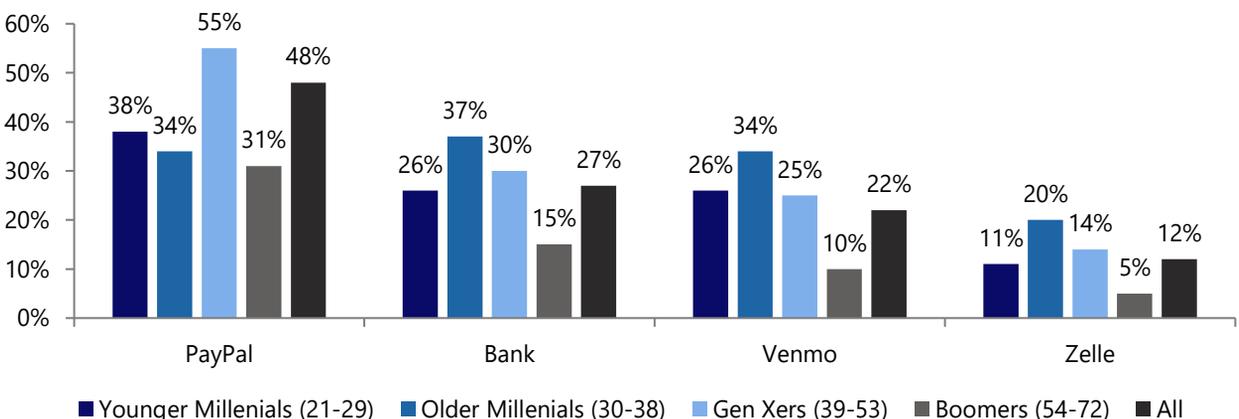
PayPal's value to consumers is on the transaction side with merchants, as well as with peer-to-peer (P2P) money transfers. During transactions with merchants, PayPal offers additional convenience and security. It provides one-click checkout, eliminating the need to input all payment information or use auto-fill tools. There is also an additional layer of fraud protection as the vendor does not receive your card information. Finally, PayPal offers additional buyer

protection by refunding the buyer the full cost of the purchase plus original shipping costs if the item is not how it was described on the merchant website. In addition, it will also cover the shipping costs of any item that you return.

PayPal also delivers value to consumers in the P2P payments space. PayPal and its subsidiary Venmo represent two of the most popular P2P payment platforms in the U.S. An important consideration is how PayPal and Venmo's services differ from competing services, such as e-transfer, and competing companies, such as Zelle. Zelle is Venmo's largest competitor in the U.S., and has processed \$49 billion in transactions in Q3 2019 compared to Venmo's \$27.5 billion. While this is troubling, Venmo's adoption is higher than Zelle (exhibit VI) and Venmo has higher customer engagement. This high engagement is likely a function of Venmo's social-media-like approach to payments that allows you to post transactions on a profile page and see what purchases your friends are sharing. We believe that Venmo is just one of many of PayPal's value-add services offered to customers.

### EXHIBIT VI

Mobile P2P Adoption by Generation



Source(s): Cornerstone Advisors Survey

## Key Question 2: Does PayPal Have What It Takes to Be A Winner?

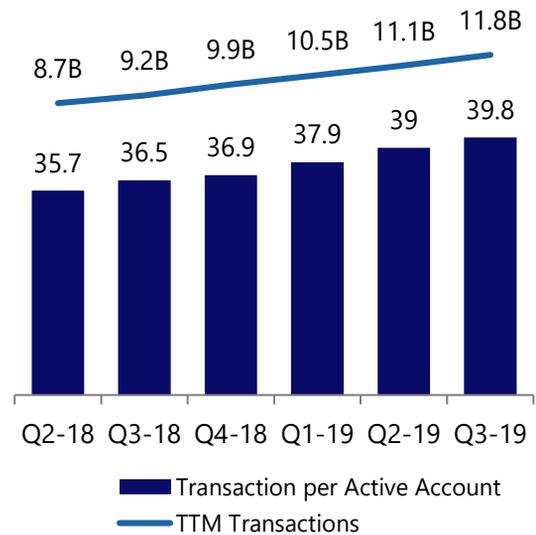
A survey done of U.S. consumers done in 2018 suggests that the digital P2P payments space is not a winner take all game (exhibit VII). This graph shows that a majority of those that have adopted digital P2P platforms across most age groups use more than one platform – 29% of younger millennials and 21% of older millennials use five to six P2P providers.

Finally, how has this preference from consumers translated into financial performance? Both total PayPal transactions, as well as transactions per active account, have grown at high-single-digits in recent years. Venmo has also increased its total payments value at a 64% Y/Y rate from Q3 2018 to Q3 2019.

To conclude, when consumers are buying products using e-commerce platforms, they are choosing PayPal because of its added security and convenience. When looking at the P2P transfers market, there is room for multiple players to thrive. Based on the current research, it seems likely that PayPal and Venmo will continue to be the mainstream players, while smaller players occupy niches.

### EXHIBIT X

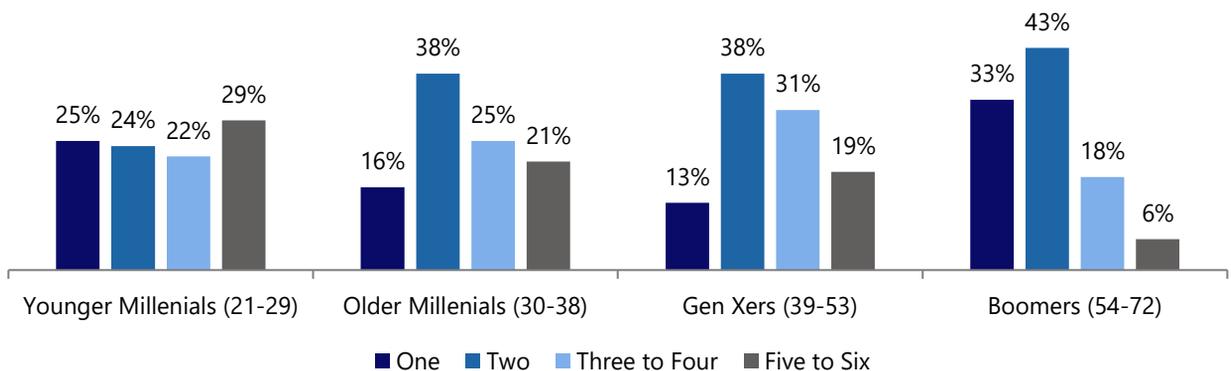
PayPal Customer Engagement



Source(s): PayPal Q3 2019 Investor Update

### EXHIBIT VII

Number of Digital P2P Providers Used by Generation



Source(s): Cornerstone Advisors Survey

## Key Question 2: Does PayPal Have What It Takes to Be A Winner?

### Moving to the Merchant Side

There are three main reasons as to why PayPal is the preferred platform for many online businesses. The first is the company's fast and easy account set up process. Within minutes, the members of the FIG team were able to set up a PayPal business account and begin integrating PayPal with websites. Once integrated, PayPal checkout terminals can accept both money held in PayPal accounts and credit cards. This setup process is perfect for small-to-medium-sized businesses (SMB) who want to begin taking digital payments quickly and don't want to have to undergo the lengthy process of working with a merchant acquirer. It's for this reason that PayPal has a 64.7% market share in the U.S. online payments space.

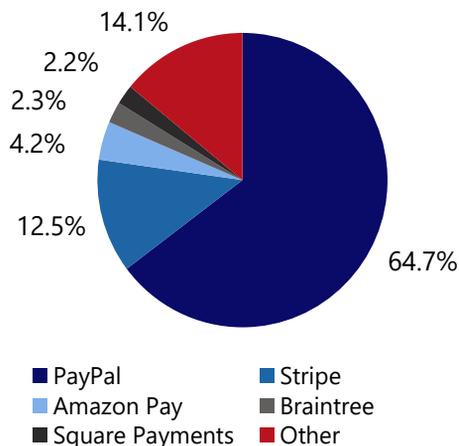
The second reason behind the platform's strength is related to the active customer engagement described in previous pages. This additional convenience and engagement mean that PayPal's checkout conversion rate (measured from the point a customer selects

a payment option to the point they complete the transaction) is at 88.7%. This is 82 percent higher than alternative checkout options, including other digital wallets and cards. In addition, given the volume of people who have PayPal accounts (exhibit IX), having a PayPal checkout option becomes a must-have even for larger businesses. By not having PayPal checkout as an option, merchants would be leaving money on the table.

The third reason that PayPal can capture a strong share of the merchant market is due to its 2013 entry into the SMB lending business. In 2018, it originated ~\$6B worth of loans. PayPal is in a unique position to deliver loans because it can set pricing based off data it has on a merchant's sales, checkout metrics, and purchase frequency. These loans are customizable and can be done from the convenience of the home. If merchants wish to continue to have access to PayPal's financial products, they must continue to use PayPal as their primary online checkout service.

#### EXHIBIT VIII

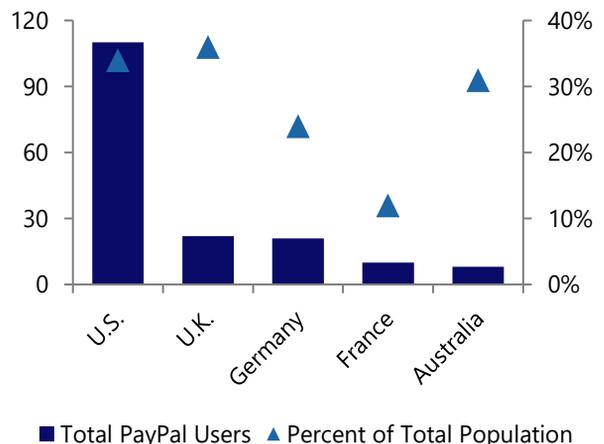
U.S. Online Digital Payments Space



Source(s): Datanyze

#### EXHIBIT IX

Total PayPal Users in Key Countries 2017 (MM)



Source(s): BNP Paribas Equity Research

## Key Question 2: Does PayPal Have What It Takes to Be A Winner?

To conclude, PayPal's fast and easy merchant account set-up process, captivity of the consumer market, and loan offerings provide some insurance that it will be able to continue to attract more merchants to its platform.

### Investment Capacity Exceeds Digital Peers

One final point that will allow PayPal to continue to be a winner in this space is its unmatched R&D budget relative to other digital players. It is by far the most established player in the space, and here we can see the advantages of scale at play. PayPal can easily spend multiples higher in terms of R&D and capital expenditures while keeping expenses at a relatively low percentage of net revenues.

### Concluding Thoughts

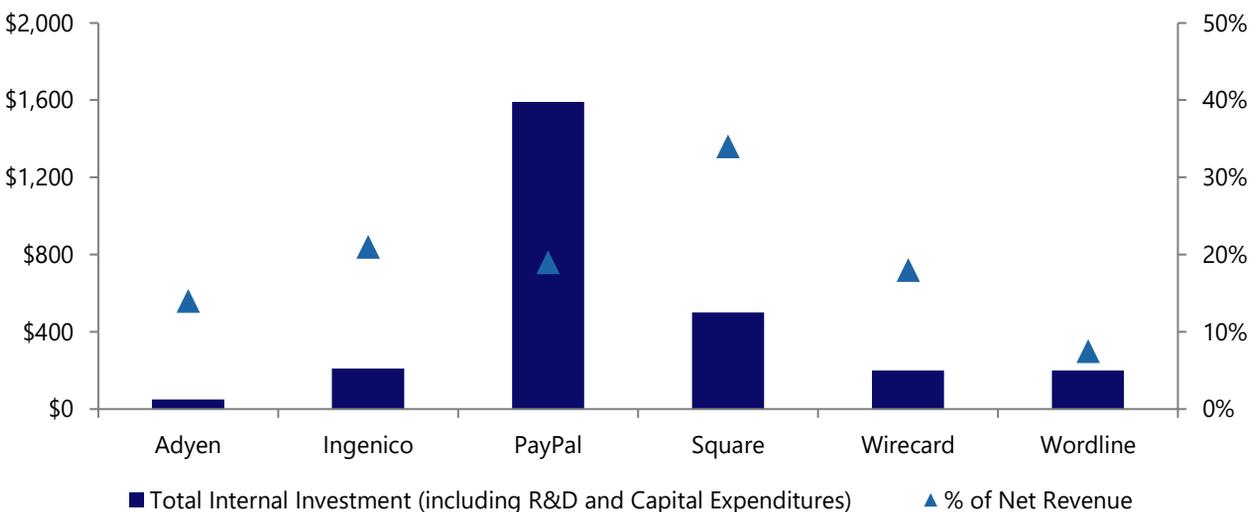
To determine if PayPal can be a winner in the digital

payments space, the company was examined from the perspective the consumer and the merchant, while also considering its ability to reinvest in the business. From the consumer angle, the analysis determined that PayPal's platform was more convenient and thus resulted in strong customer engagement metrics. In addition, there is likely room for multiple platforms to be "popular" among consumers due to demographic differences. From the merchant angle, few other platforms offered services that were as simple to set-up, resulting in PayPal's substantial market share of digital checkout sites. Finally, the company also has capacity to outspend its digital competitors.

Coming back full circle, given that all three angles that the evaluation was examined from yielded positive results, the team sees PayPal as continuing to be a dominant player in the payments space.

### EXHIBIT X

Digital Payment Platforms Total Internal Investment Effort 2018



Source(s): BNP Paribas Equity Research

## Key Question 3: Management Overview and Compensation Structure

### Key Executives

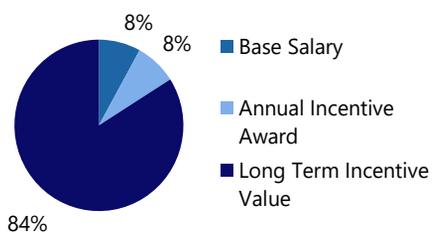
Daniel Schulman is the President and CEO of PayPal. He has a wealth of experience, being the former President of enterprise growth at American Express, the former President of Sprint's prepaid group, and the Founding CEO of Virgin Mobile. John Rainey is the CFO of PayPal. He began his career at Ernst and Young and then spent over 18 years at United Continental Holdings and served as CFO. Both executives started in 2015 when PayPal was split from eBay.

### Compensation Mix

The 2018 compensation mix included a base salary, annual incentive award and long-term incentive award of 8%, 8%, and 84%, respectively for NEOs (exhibit XI) and of 3%, 5%, and 92%, respectively for the CEO.

#### EXHIBIT XI

2018 Compensation Mix for NEOs



Source(s): Company Filings

### Base Salary and Incentives

The base salary is fixed and paid out in cash. The annual incentive is based on pre-set targets for revenue, non-GAAP operating margin and individual performance. It is paid out as 25% cash and 75% performance-based restricted stock units (PBRsUs). The long-term incentive, the largest component by far, is set over three years and is based on revenue CAGR, FCF CAGR, and stock price performance. It is paid out as 50% PBRsUs and 50% RSUs. The CEO has a special performance stock unit award if certain stock price targets are met over the course of five years. While the use of direct equity is always the best, an emphasis on RSUs and PSUs is preferable to the use of stock options. However, the incentive targets do not include any ratios that track returns adjusted to scale such as ROIC – this is especially important for a company in an acquisition-driven industry.

### Other Considerations

The 2018 Compensation table (exhibit XII) shows the termination bonus value that all key executives are entitled to if the company undergoes a change in control and their standing compensation package is not renewed – this makes little sense and could incorrectly incentivize a sellout. PayPal outlines stock ownership guidelines which require stock ownership as a multiple of base salary – 6x for the CEO and 3x for EVPs within three years of appointment, creating shareholder alignment.

#### EXHIBIT XII

2018 Compensation Table

Name	Base Salary	Stock Awards	Option Awards	Other Compensation	Total	Termination Bonus
Daniel H. Schulamn	\$1,000,000	\$35,275,516	\$0	\$1,489,072	\$37,764,588	\$52,738,362
John D. Rainey	\$721,154	\$8,463,911	\$0	\$339,125	\$9,524,190	\$19,891,719
Gary J. Marino	\$656,731	\$7,438,060	\$0	\$317,250	\$8,412,041	\$21,854,911
Louise Pentland	\$713,942	\$8,463,911	\$0	\$339,125	\$9,516,978	\$30,670,826

Source(s): Company Filings

## Key Question 3: Management Overview and Compensation Structure

### Industry Weightings

PayPal's spending on capital expenditures, acquisitions and R&D is similar or even lower as a percentage of revenue when compared to its competitors. Square spent 15% of revenue on R&D in 2018, while PayPal only spent 6.7%. However, in absolute terms PayPal's budget dwarfs its relatively small competitors (exhibit XIII). The larger competitors, such as Visa, are more focused on repaying debt, share buybacks and dividends than growth initiatives. As well, there are few large players in the online payments space that are pursuing similar acquisitions – PayPal is the largest.

### Shifts in PayPal's Capital Allocation

PayPal capital allocation strategy has shifted slightly over the past few years. Spending on capital expenditures and R&D trended downwards in 2018 while share buybacks and cash acquisitions increased. However, the increases outweighed the decreases, given the use of debt – net debt was increased in both 2017 and 2018 for buybacks and acquisitions. There are two major reasons for these shifts. As PayPal gains scale, management prefers to make an entry into a new market through an acquisition as opposed to a service created in R&D - acquisitions allow for more immediate returns. Management's effort to increase share buybacks may be misguided given the

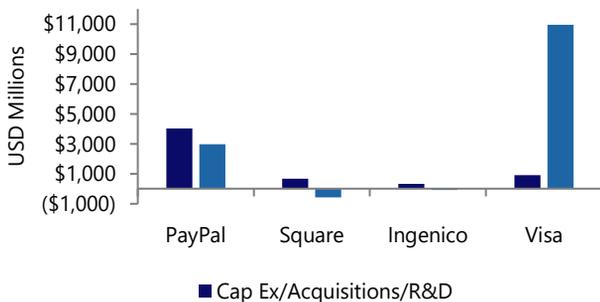
compensation incentives for increasing share prices. Management rewards being based on stock price performance is inherently flawed and can result in the future manipulation of capital allocation. However, PayPal did not trim growth spending in order to issue buybacks, so it is not a concern as of now. Instead, PayPal made use of its debt capacity – its debt/capital is still low at just under 25%.

### PayPal's Entry Into SMB Lending

After the 2008 financial crisis, small businesses had trouble acquiring loans. New capital rules discouraged banks from issuing these loans, and if they did, the interest rates would be near 30-40%. This gave entry to digital players including OnDeck, Kabbage, Square and PayPal. In 2013, PayPal launched its first working capital loan product. In 2017, PayPal spent \$183M to acquire Swift Financial, a company specializing in small business loans. PayPal likes this segment as it can be more competitive than banks, have direct sales data for businesses, and limit its default risk since it takes money directly from the business's revenue. In 2018, PayPal bought iZettle which directly competes with Square in Europe, by offering solutions for small scale in-person merchants – this allows for diversification among small business services. In 2019, PayPal has provided over \$10B in small business loans.

#### EXHIBIT XIII

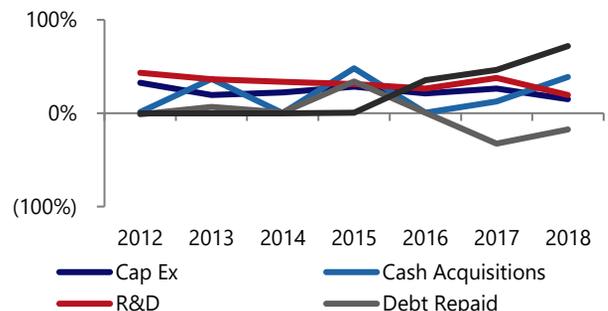
Capital Allocation Across Peers



Source(s): Company Filings

#### EXHIBIT XIV

PayPal's Capital Allocation Trends



Source(s): Company Filings

## Key Question 3: Management Overview and Compensation Structure

### Acquisitions

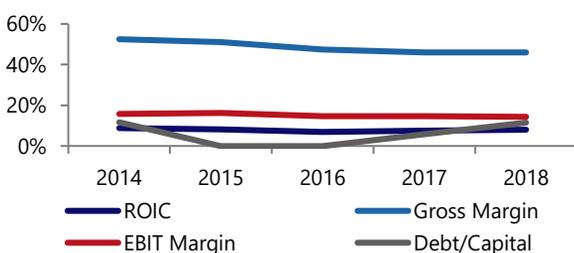
PayPal's management has been very focused on acquisitions since the spin-off in 2015. Management's key acquisitions objectives are to increase the breadth of products and services offered, enter new spaces, and expand geographies. These goals allow PayPal to differentiate themselves from competitors. For example, PayPal made two acquisitions, Swift Financial and iZettle, to enter the small business sector, which they were previously not exposed to (exhibit XVI).

Management is focused on top-line growth from the acquisitions, as opposed to maintaining or improving margins. PayPal's gross margin declined from 52.6% in 2014 to 46% in 2018 while ROIC, EBIT Margin and Debt/Capital stayed relatively flat due to large decreases in SG&A led by operational efficiencies (exhibit XV). The iZettle and Hyperwallet acquisitions in 2018 are projected to contribute to 1.5% of revenue growth in 2019. Being in its growth stages, management's acquisition strategy is smart, despite minor variations in the EBIT margin.

In 2017, there was a \$10M goodwill impairment in relation to Xoom and in 2018, there was a \$36M goodwill impairment in relation to TIO Networks Corp. However, given that management spends between \$1-3B on acquisitions annually, these values do not have a significant impact on the company.

### EXHIBIT XV

PayPal's Key Metrics Analysis



Source(s): Company Filings

### EXHIBIT XVI

PayPal's Acquisition History

April 2015	<b>Acquired Paydiant for \$230M:</b> Licenses a technology platform used by retail chains to create their own branded mobile wallet apps
Nov 2015	<b>Acquired Xoom for \$961M:</b> Allows people to send money and pay bills from the U.S. to 37 foreign countries
Sept 2017	<b>Acquired Swift for \$183M:</b> Provides small business owners with working capital – a product that PayPal is eager about
July 2017	<b>Acquired TIO Networks for \$238M:</b> Multi-channel bill payment processor that services 14M consumers and has 65,000 retail walk-in locations
Nov 2018	<b>Acquired Hyperwallet for \$399M:</b> Provides an efficient way for organizations to distribute funds to payees anywhere in the world
Sept 2018	<b>Acquired iZettle for \$2.1B:</b> Focused on being a one stop shop for small businesses – everything from payments, management and funding
July 2018	<b>Acquired Simility for \$107M:</b> Specializes in machine learning based technology to help online merchants decrease fraud

## Valuation: DCF Output

PayPal was valued first using a discounted cash flow model. The implied share price based on this model is \$115.78 and represents a 14.16% premium based on the current share price of PayPal. This high valuation is driven mostly by the terminal multiple, as well as the high revenue growth rates of 15% decreasing to 6% in the later years of the model.

One of the larger assumptions in the model was based on the terminal multiple of 20.0x. This is inline with current industry multiples but was sensitized to determine the effects on the model should the multiple be as low as 16.0x.

### EXHIBIT XVII

DCF Output and Implied Share Price

DCF Assumptions and Outputs	
Terminal Multiple	20.0x
Terminal EBITDA	\$10,517
Discount Rate	6.66%
Terminal Value	\$210,349
PV of Terminal Value	\$110,409
Sum of PV of Cash Flows	\$32,294
Enterprise Value	\$142,703
Less Net Debt	-\$4,985
Less Preferred Equity	\$0
Equity Value	\$137,718
Shares Outstanding	1,189.5
Target Return	
Implied Share Price	\$115.78
Current Share Price	\$101.42
Dividend Yield	0.00%
Implied Return	14.16%

### EXHIBIT XVIII

Sensitivity Analysis

		Sensitivities				
		Discount Rate				
Changes to Terminal Multiple		5.50%	6.00%	6.66%	7.00%	7.50%
	16.0x	\$107.42	\$102.87	\$97.21	\$94.42	\$90.50
	18.0x	\$117.77	\$112.74	\$106.50	\$103.41	\$99.08
	20.0x	\$128.12	\$122.62	\$115.78	\$112.40	\$107.66
	22.0x	\$138.47	\$132.49	\$125.06	\$121.39	\$116.24
	24.0x	\$148.83	\$142.37	\$134.34	\$130.38	\$124.82

## Valuation: Comparable Companies Analysis

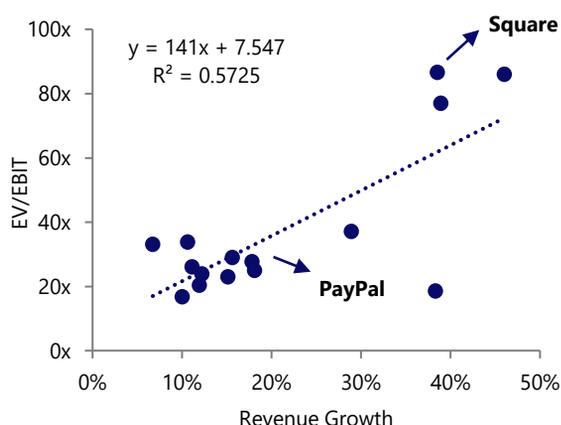
### EXHIBIT XIX

#### PayPal Comparable Company Analysis

Company	Market Cap	P/E FY+1	P/E FY+2	EV/EBIT FY+1	EV/EBIT FY+2	EBIT 3-Year CAGR	Net Income 3-Year CAGR	Revenue 3-Year CAGR	EBIT Margin	Value-to-Growth
Visa	\$387,265.6	28.8x	24.8x	23.0x	20.2x	15.4%	26.3%	15.1%	67.0%	1.50x
Mastercard	\$277,326.5	35.8x	30.4x	29.0x	24.8x	18.3%	19.9%	15.6%	57.0%	1.59x
Fiserv	\$75,180.0	27.9x	22.6x	23.9x	21.5x	3.5%	1.0%	12.2%	20.2%	6.78x
Square	\$26,674.3	80.2x	63.9x	nfm	nfm	nfm	nfm	38.5%	0.2%	nfm
Wirecard AG	\$15,801.4	26.8x	20.0x	18.6x	13.5x	42.9%	22.7%	38.3%	24.0%	0.43x
Worldline S.A.	\$11,046.4	33.5x	27.2x	25.0x	20.7x	23.7%	8.0%	18.1%	17.4%	1.05x
Ingenico Group	\$6,719.7	19.4x	17.7x	16.8x	15.2x	-2.3%	-2.4%	10.0%	11.7%	-7.22x
PayPal Holdings	\$119,086.6	33.2x	29.0x	27.7x	23.2x	19.0%	22.6%	17.8%	15.2%	1.46x

### EXHIBIT XX

#### Value-to-Growth



### EXHIBIT XXI

#### Implied Return

Implied Multiple	32.65x
EBIT FY+1	\$4,116.5
Enterprise Value	\$134,382.2
Less: Net Debt	\$4,985.0
Market Cap	\$139,367.2
Shares Outstanding	1174.25
Implied Share Price	\$118.69
Current Share Price	\$100.47
Implied Return	18%

#### Output Summary:

Based on the Value-to-Growth output graph from the comparables set and other European payments players, it is clear that PayPal trades at a discount based on its growth – PayPal deserves an implied EV/EBIT multiple of 32.65 times **which represents an 18% return**



## Appendix

PayPal Holdings, Inc. Discounted Cash NasdaqGS:PYPL											
	2019E	2020E	2021E	2022E	2023E	Projected 2024E	2025E	2026E	2027E	2028E	2029E
<i>(\$ in Millions Except Per Share Data)</i>											
<b>Revenue</b>	17,768.8	20,434.1	23,294.8	26,323.1	29,745.1	33,314.5	36,645.9	40,310.5	43,535.3	46,582.8	49,377.8
<i>Year over Year Growth</i>	15.0%	15.0%	14.0%	13.0%	13.0%	12.0%	10.0%	10.0%	8.0%	7.0%	6.0%
<b>Cost of Goods Sold</b>	(9,239.8)	(10,625.7)	(12,113.3)	(13,688.0)	(15,467.5)	(17,323.6)	(19,055.9)	(20,961.5)	(22,638.4)	(24,223.1)	(25,676.4)
<i>% of Revenue</i>	52.0%	52.0%	52.0%	52.0%	52.0%	52.0%	52.0%	52.0%	52.0%	52.0%	52.0%
<b>Total Operating Expenses</b>	(4,744.2)	(5,455.9)	(6,219.7)	(7,028.3)	(7,941.9)	(8,895.0)	(9,784.4)	(10,762.9)	(11,623.9)	(12,437.6)	(13,183.8)
<i>% of Revenue</i>	29.0%	29.0%	29.0%	29.0%	29.0%	29.0%	29.0%	29.0%	29.0%	29.0%	29.0%
<b>EBITDA</b>	<b>3,784.8</b>	<b>4,352.5</b>	<b>4,961.8</b>	<b>5,606.9</b>	<b>6,335.7</b>	<b>7,096.0</b>	<b>7,805.6</b>	<b>8,586.2</b>	<b>9,273.0</b>	<b>9,922.1</b>	<b>10,517.5</b>
<i>% of Revenue</i>	21.3%	21.3%	21.3%	21.3%	21.3%	21.3%	21.3%	21.3%	21.3%	21.3%	21.3%
<b>Less: Depreciation and Amortization</b>	(888.4)	(1,021.7)	(1,164.7)	(1,316.2)	(1,487.3)	(1,665.7)	(1,832.3)	(2,015.5)	(2,176.8)	(2,329.1)	(2,468.9)
<i>% of Revenue</i>	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
<b>EBIT</b>	<b>2,896.3</b>	<b>3,330.8</b>	<b>3,797.1</b>	<b>4,290.7</b>	<b>4,848.5</b>	<b>5,430.3</b>	<b>5,973.3</b>	<b>6,570.6</b>	<b>7,096.3</b>	<b>7,593.0</b>	<b>8,048.6</b>
<i>% of Revenue</i>	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%
<b>Less: Income Taxes</b>	<b>(553.7)</b>	<b>(640.6)</b>	<b>(733.8)</b>	<b>(832.6)</b>	<b>(944.1)</b>	<b>(1,060.5)</b>	<b>(1,169.1)</b>	<b>(1,288.6)</b>	<b>(1,393.7)</b>	<b>(1,493.0)</b>	<b>(1,584.1)</b>
<i>Tax Rate</i>	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
<b>Net Operating Profit After Taxes</b>	<b>2,342.6</b>	<b>2,690.2</b>	<b>3,063.2</b>	<b>3,458.1</b>	<b>3,904.4</b>	<b>4,369.8</b>	<b>4,804.2</b>	<b>5,282.1</b>	<b>5,702.6</b>	<b>6,100.0</b>	<b>6,464.4</b>
<i>Year over Year Growth</i>	23.3%	14.8%	13.9%	12.9%	12.9%	11.9%	9.9%	9.9%	8.0%	7.0%	6.0%
<b>Plus: Depreciation and Amortization</b>	888.4	1,021.7	1,164.7	1,316.2	1,487.3	1,665.7	1,832.3	2,015.5	2,176.8	2,329.1	2,468.9
<b>Less: Capital Expenditures</b>	(888.4)	(1,021.7)	(1,164.7)	(1,316.2)	(1,487.3)	(1,665.7)	(1,832.3)	(2,015.5)	(2,176.8)	(2,329.1)	(2,468.9)
<i>% of Revenue</i>	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
<b>Less: Change in Working Capital</b>	433.2	(186.6)	(200.3)	(212.0)	(239.5)	(249.9)	(233.2)	(256.5)	(225.7)	(213.3)	(195.6)
<b>Unlevered Free Cash Flow</b>	<b>2,775.9</b>	<b>2,503.6</b>	<b>2,863.0</b>	<b>3,246.2</b>	<b>3,664.8</b>	<b>4,120.0</b>	<b>4,571.0</b>	<b>5,025.6</b>	<b>5,476.9</b>	<b>5,886.7</b>	<b>6,268.8</b>
<i>Free Cash Flow Growth Rate</i>	198.7%	-9.8%	14.4%	13.4%	12.9%	12.4%	10.9%	9.9%	9.0%	7.5%	6.5%
<i>Discount Period</i>	0	1	2	3	4	5	6	7	8	9	10
<b>PV of Unlevered Free Cash Flows</b>	<b>2,775.9</b>	<b>2,347.4</b>	<b>2,516.7</b>	<b>2,675.4</b>	<b>2,831.9</b>	<b>2,984.9</b>	<b>3,104.9</b>	<b>3,200.6</b>	<b>3,270.3</b>	<b>3,295.5</b>	<b>3,290.4</b>



**November 11, 2019**  
*A Penny for Our Thoughts*

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3. Company Filings
4. Cornerstone Advisors
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7. S&P Capital IQ