



# Market Share Monitor

Core & Emerging Markets Update

**May 2019**

Programs and resources at [Go/MarketResearch](#)  
Slack channel at [#IndustryInsights](#)

# Definitions

Consistent with MSM 2018 Q3; Dashboard and past decks at [Go/MarketShare](#)

## Scope and TPV attribution approach

- **Focus on Digital Payments:** Payments made through the internet using a desktop, laptop, tablet, mobile app, or mobile website
- **Consumer perspective:**
  - **Includes payments initiated by consumers (only C2B and C2C) in respective countries<sup>1</sup>.** For example, if a US-based consumer purchases a product from a UK merchant through PayPal, TPV is attributed to PayPal US
  - **TPV is attributed to the end-payment method that the consumer interacts with.** For example, if a consumer is sending money via Venmo and the funding instrument is Visa Debit, the TPV is attributed to Venmo and not Visa Debit (unduplicated)
  - **Data triangulated from primary research** (diary), **secondary sources** (Euromonitor, Statista etc.) and **competitive intelligence interviews** (with competitor employees, experts, authorities)

## Segmentation of Consumer-initiated Digital Payments Market

1. **Digital Commerce:** Online consumer transactions directly related to shopping for products and services at a digital storefront
  - **Includes:** Any device (incl. mobile web and in-app purchases); Cash on delivery in Emerging markets
  - **Excludes:**
    - B2B & G2B payments
    - Adult, Auctions, Gambling, Houses / real estate, Telecom services, Utilities (e.g. water, heating, electricity), Financial services, Insurance
    - **PP Product flows:** eBay, MS, WPS, Adaptive Payments and PFM (consumer and upgradeable guest sender account types)
2. **Digital Peer-to-Peer:** Transfers sent by an individual to another individual or micro-merchant using any digital interface (desktop, app, email, mobile number)
  - **Includes:**
    - Friends & Family (no transfer fees) and Goods & Services (incl. transfer fees), e.g. sending a bank transfer online to son/daughter, paying baby-sitter through Venmo etc.
    - ACH and XB<sup>1</sup> transfers
  - **Excludes:**
    - B2B transfers, B2C disbursements, G2C, C2G, A2A (transfers between a single person's multiple accounts)
    - Recurring bills
    - Bank-app/website initiated wire transfers, online check cashing ([improved definition from pilot](#))
  - **PP Product flows:** P2P – F&F, P2P – G&S and Invoicing
3. **Digital In-Store:** Tap-to-pay transactions at Point-of-Sale that are processed via smartphone applications (so called mobile wallets)
  - **Includes:** NFC & QR code payments ([improved definition from pilot](#))
  - **Excludes:**
    - Point-of-Sale card payments at mobile card readers
    - Transactions made remotely and picked up in-store (e.g. ordering food ahead and picking up in store) – *these are included in Digital Commerce*
    - Transactions made through in-app store fronts (e.g. Uber) – *these are included in Digital Commerce*
  - **PP Product flows:** Retail

<sup>1</sup> Transaction flows from immigrants to a country will be attributed to the country in which they were present when the transaction occurred, regardless of the location of their bank account/funding instrument. An example of this is AliPay in AU whose TPV value is driven by primarily Chinese immigrants in AU with Chinese bank accounts

# Market Share Monitor

## Q1 2019

Core & Emerging Markets Update

### Agenda

1. Market Overview
2. Strategic Insights
  1. Opportunities
  2. Threats
  3. Market Share
3. Country Snapshots
  1. Core Markets
  2. Emerging Markets

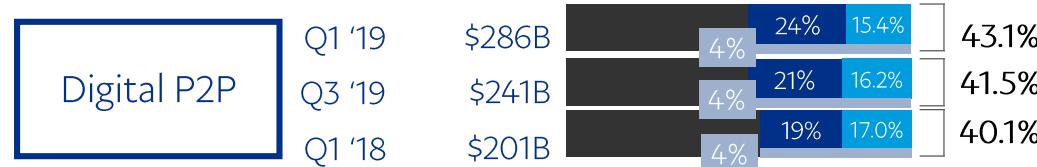
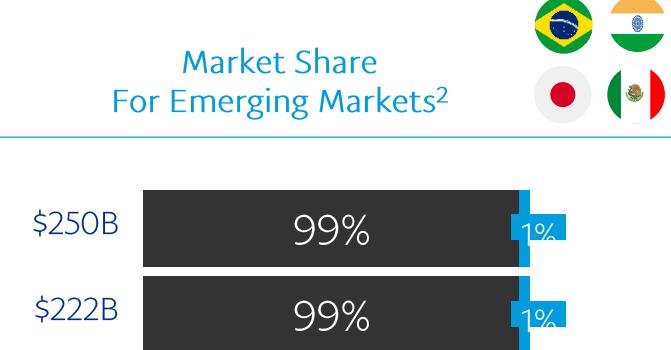
# MSM triangulates market share from primary, secondary and competitive intelligence research

Margin of Error =  $\pm 2\text{pp}$ , within which changes are not statistically significant

Market Share  
For Core Markets<sup>1</sup>



Market Share  
For Emerging Markets<sup>2</sup>



Note: Country share breakouts in the  
Country Snapshots section

PayPal   Venmo   Xoom   Rest of Market



China is nearly 10x  
the size of the  
Emerging markets  
and 3x the size of US<sup>4</sup>

1. Core markets data as of 2019 Q1. Markets include US, UK, DE and AU (Excludes CA)

2. Emerging data as of 2019 Q1. Includes JP, IN, BR, MX.

3. Digital Commerce is defined as online consumer transactions related to shopping. P2P is transfers sent from one individual to another. Digital In-store is Tap to Pay transactions at POS processed via smartphone apps.

4. Change in PayPal P2P from 17% to 15% is within margin of error

# At a country level, PayPal retains a strong position in Core across Digital Commerce & P2P

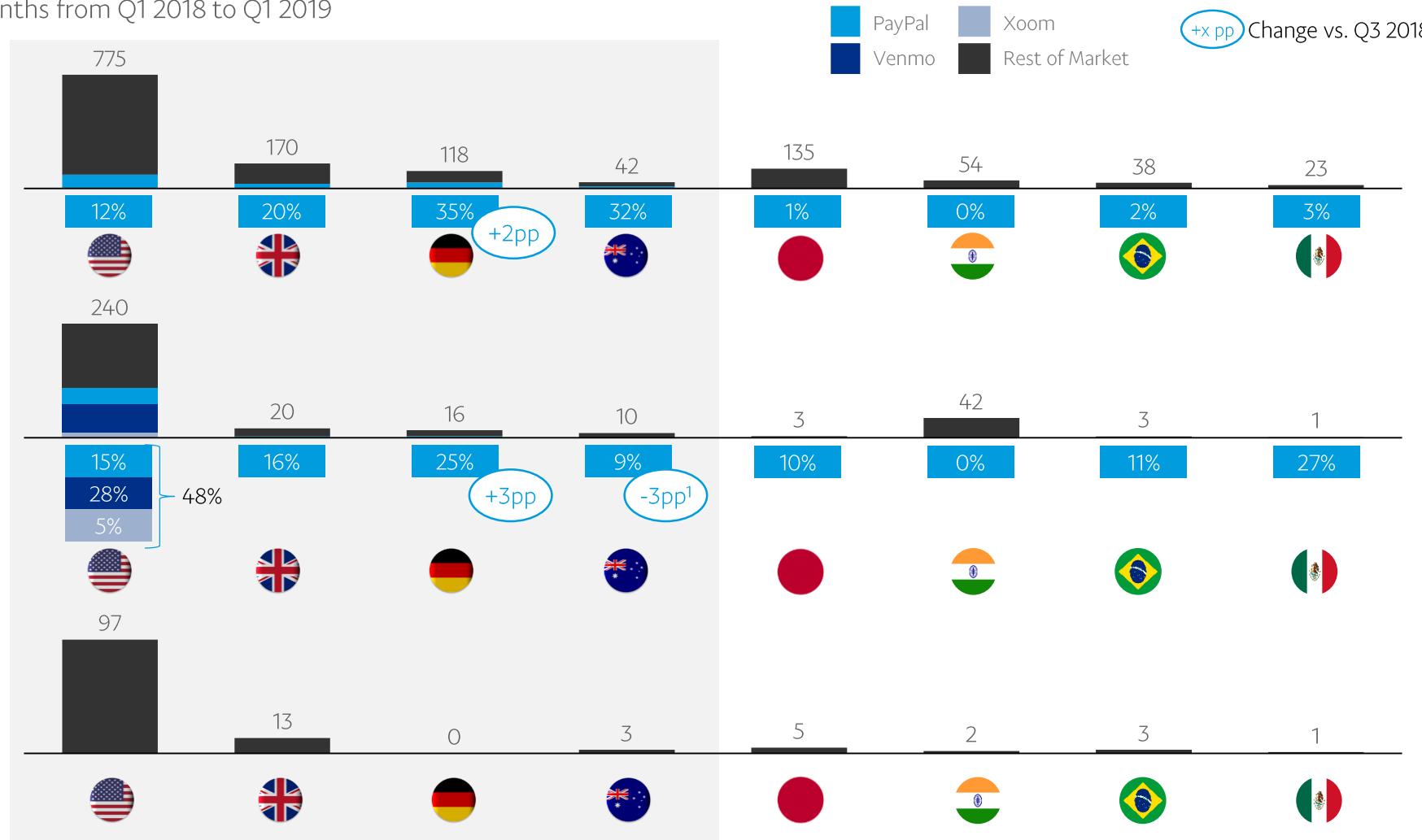
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\$ Billions, Estimate for 12 months from Q1 2018 to Q1 2019

Digital  
Commerce  
Retail + Travel

Digital P2P

Digital  
In-store



1. AU P2P share dropped 3p.p. in past 6 months, primarily due to continued rapid growth in Osko (coalition of top 4 AU banks), which grew 4.4pp

Chart of the Month – Feb 2019; Find out more at [go/marketshare](#) or Slack #industryinsights. Revised on 2/21/19

# PayPal Market Share Across 50 Countries

US Digital Commerce market (inclusive of Retail, Travel & Selected Services) is \$762B, of which PayPal has 12% market share from a consumer-sent TPV perspective<sup>1</sup>. Market is projected to grow at 12% YOY<sup>4</sup> from 2018-2021. Within Digital Commerce, Retail<sup>2</sup> constitutes \$523B, in which PayPal has a larger share (16%). Among users, US has 201M online buyers<sup>3</sup> with PP having 37% penetration based on active accounts<sup>3</sup>

**Core Markets** Digital Commerce = Retail + Travel + Selected Services

USD (M) Population (M)	Digital Commerce = Retail + Travel + Selected Services					
	Digital Commerce Market Size <sup>1</sup>	PayPal Market Share <sup>1</sup>	Market Growth <sup>4</sup> '18-'21	PayPal Retail Market Size <sup>2</sup>	Retail Market Share <sup>2</sup>	Online Buyers <sup>3</sup>
US <sup>0,0</sup>	761,786	12%	12%	523,920	16%	201.0 37%
UK <sup>0,0</sup>	165,738	20%	7%	117,654	26%	50.9 44%
Germany <sup>0,0</sup>	121,357	33%	9%	79,545	45%	57.5 38%
Australia <sup>0</sup>	41,893	34%	8%	25,544	50%	13.4 54%
Canada <sup>0</sup>	61,162	10%	14%	39,586	14%	21.6 29%
Switzerland <sup>0,0</sup>	14,054	10%	9%	7,407	17%	6.2 17%
Austria	11,808	14%	6%	6,941	22%	5.4 21%
New Zealand <sup>0,0</sup>	8,521	5%	7%	2,237	19%	NA NA

**Global (weighted average across 53 markets)**

Global	2,756,998	8%	13%	1,762,256	11%	1507.6 12%
- Core	1,151,936	16%	11%	786,249	21%	344.5 38%
- Int.	1,605,062	2%	15%	976,006	3%	1163.1 4%

Notes:

1 Digital commerce is any online (mobile, app, web) B2C purchases made by residents of a country, calculated as of FY 2018. PayPal Market Share is TPV share using PP branded Digital Commerce TPV (consumer, guest upgradeable and MS, WPS, Adaptive, eBay, PPFM). Excludes DCC, BT). This is consumer-sent TPV from residents of given country (domestic and XB to other countries). Denominator is average of market size estimates from Statista, Euromonitor and leading local source (where available). See [go/marketshare](#)

2 Retail refers to ex-travel digital commerce (i.e. e-commerce + selected services like event tickets). PP retail flows is DC excluding travel

3 Online buyers are consumers (all ages) who have made at least one online purchase in past year, excluding gambling, services (Forrester survey). Penetration defined as (PP 12M Actives - Dec 2018) / (Online Buyer Population); excludes merchants, Venmo/BT/Xoom, guest accounts

4 Market growth refers to projected CAGR derived from Euromonitor forecast of digital commerce size (internet retailing + online travel sales to residents)

## Emerging<sup>5</sup>

USD (M) Population (M)	Digital Commerce Market Size <sup>1</sup>	Market Share <sup>1</sup>	Market Growth <sup>4</sup> '18-'21	Retail Market Size	Retail Market Share	Online Buyers <sup>3</sup>
China <sup>5,0</sup>	792,572	0%	16%	511,000	0%	533.2 0%
Japan <sup>0,0</sup>	133,523	1%	8%	93,339	1%	79.0 3%
India <sup>0</sup>	54,317	0%	21%	36,660	0%	113.6 3%
Brazil <sup>0</sup>	34,456	2%	16%	19,607	4%	49.9 8%
Mexico	21,200	5%	21%	10,449	10%	24.3 10%

## Common Domestic

France <sup>0</sup>	80,646	11%	9%	49,460	16%	44.8 20%
Italy <sup>0,0</sup>	36,881	22%	11%	17,335	39%	22.8 28%
Spain <sup>0,0</sup>	36,909	10%	8%	14,611	21%	20.8 23%
Portugal <sup>0</sup>	6,168	8%	10%	2,546	16%	3.3 24%
Netherlands <sup>0</sup>	26,903	6%	11%	15,549	9%	13.5 15%
Sweden <sup>0,0</sup>	18,113	4%	10%	9,472	7%	8.1 15%
Belgium <sup>0,0</sup>	15,284	9%	9%	8,285	14%	7.4 16%
Poland <sup>0</sup>	14,059	3%	14%	8,399	5%	16.8 8%
Denmark <sup>0,0</sup>	12,473	4%	8%	6,698	6%	4.5 18%
Norway <sup>0</sup>	12,460	6%	8%	6,315	11%	4.1 26%
Finland <sup>0</sup>	9,364	5%	8%	5,191	8%	4.2 16%
Ireland <sup>0,0</sup>	7,564	15%	13%	4,317	22%	2.9 43%
Singapore <sup>0</sup>	7,516	11%	12%	2,976	23%	2.9 24%
Czech Republic	6,614	3%	13%	4,089	4%	4.5 10%
Greece	6,407	5%	10%	2,733	10%	3.5 15%
Hungary <sup>0</sup>	3,242	7%	14%	1,727	12%	3.9 14%
Slovakia	1,970	6%	14%	1,130	9%	NA NA

## Accelerate

## Aspire

Within scope of Market Share Monitor (MSM) Key CBT markets

Ø Amazon Pay Available    ♡ Apple Pay Available    NA – data not available in secondary sources

## CBT<sup>7</sup>

USD (M) Population (M)	Digital Commerce Market Size <sup>1</sup>	Market Share <sup>1</sup>	Market Growth <sup>4</sup> '18-'21	Retail Market Size	Retail Market Share	Online Buyers <sup>3</sup>
Russia <sup>0</sup>	38,730	1%	16%	20,238	2%	59.0 3%
Israel	8,136	8%	11%	3,296	18%	NA NA
UAE <sup>0</sup>	6,794	3%	14%	1,991	8%	NA NA
South Africa	5,430	2%	12%	2,284	5%	NA NA
Romania	4,352	2%	23%	2,162	4%	4.3 7%
Morocco	1,564	1%	8%	299	6%	NA NA
Bulgaria	1,270	6%	11%	500	15%	NA NA
Kenya	1,227	1%	9%	84	14%	NA NA
Lithuania	1,134	7%	NA	659	11%	NA NA
Croatia	995	13%	9%	387	31%	NA NA
Latvia	749	11%	NA	338	21%	NA NA
Slovenia	719	17%	16%	342	31%	NA NA
Estonia	652	11%	NA	422	15%	NA NA
South Korea	84,721	0%	16%	62,665	0%	31.9 2%
Hong Kong <sup>0</sup>	9,600	8%	17%	5,411	12%	NA NA
Taiwan <sup>0</sup>	20,420	1%	10%	9,708	2%	NA NA
Thailand	8,204	3%	12%	3,201	6%	24.8 2%
Malaysia	6,652	3%	21%	2,420	7%	11.8 4%
Philippines	4,147	5%	20%	1,159	13%	31.0 2%
Vietnam	5,198	1%	19%	2,017	3%	31.5 1%
Indonesia	16,711	1%	20%	8,076	1%	41.3 1%
Argentina	13,551	1%	34%	5,457	2%	18.0 3%
Chile	6,548	3%	11%	1,977	7%	NA NA

## SEA XB

## LATAM XB

5 Cash on delivery is additionally included in JP, IN, BR, MX where it is significant in market. China is only domestic consumer-sent TPV and excludes China World Wide (XB received TPV)

6 Italy market share for 2018 Q1 should be restated to 18% (from 22% last published). This is because Euromonitor revised Italy market size estimates from \$36B to \$51B, which increases the denominator. Overall, Italy market share remained constant from Q1-Q3

7 No secondary data available for Luxembourg, Cyprus, Costa Rica and Puerto Rico

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## Q1 2019

Core Markets Update

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# Key Takeaways in Core Markets

## ① Opportunities for PayPal:

1. **Verticals:** PayPal has lowest share in Food/Dining & Auto (fastest growing verticals) as well as Travel (highest AOV)
2. **Rewards:** Earned on 42% of total consumer spend, but only 25% of PayPal TPV is claimed to be associated with rewards
3. **Recurring payments:** PayPal share is lower in recurring payments (19%) vs. one-time (23%)
4. **Debit/Travel:** Remain as large opportunities; while Debit retains dominance, PayPal gained 3pp in Travel share for DE since Q1 2018

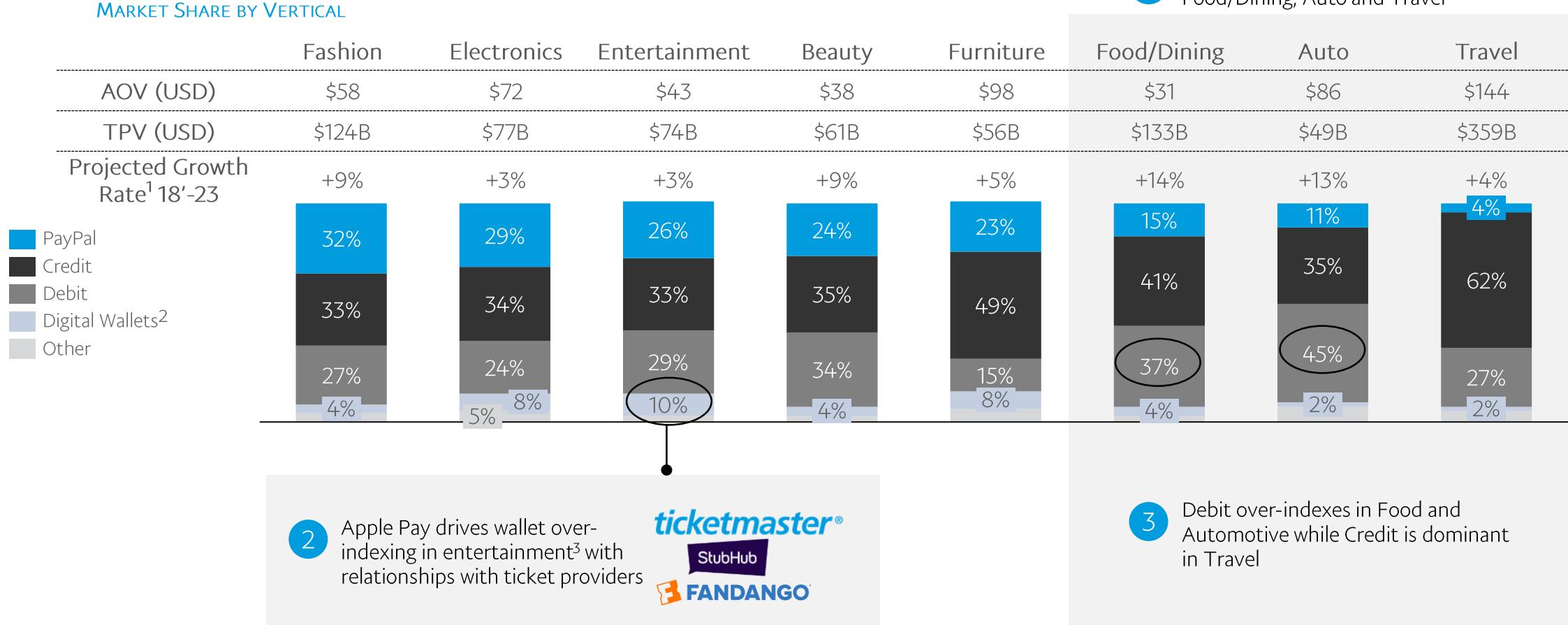
## ② Competitive Threats:

1. **Card on File:** Half of card spend (51%) occurs on vaulted cards; stronger skew for iOS transactions (61% card TPV) and apps (73%)
2. **Apple Pay:** While 42% of iOS users activated, only 28% have transacted on Apple Pay; Offline-only users increased from 73% to 78%
3. **Amazon:** With 32% Y/Y growth, Amazon forecasted to be 49% of US market in 2019. 80% of TPV is on vaulted cards
4. **Cash App:** Venmo retains strength in North-East / Pacific, while Cash App is stronger in South

## ③ Market Share:

1. **Share evolution:** Venmo in the US and PayPal (digital commerce, P2P) in DE have grown; in AU, After Pay (digital commerce) and Osko (P2P) have shown gains while PayPal (P2P) has declined
2. **Mobile share:** PayPal has lower mobile share (18%) compared to desktop (26%)
3. **Share of Wallet:** In Digital Commerce Retail, PayPal users spend 36% of their wallet on PayPal, in contrast to only 12% in Travel; PayPal remains under-indexed on Affluent

# PayPal has lowest share in Food/Dining & Auto (fastest growing verticals) as well as Travel (highest AOV vertical)



1 Market Map Exercise conducted by BT – Laura Varela (5-year E-commerce Forecast CAGR for 2018-2023)

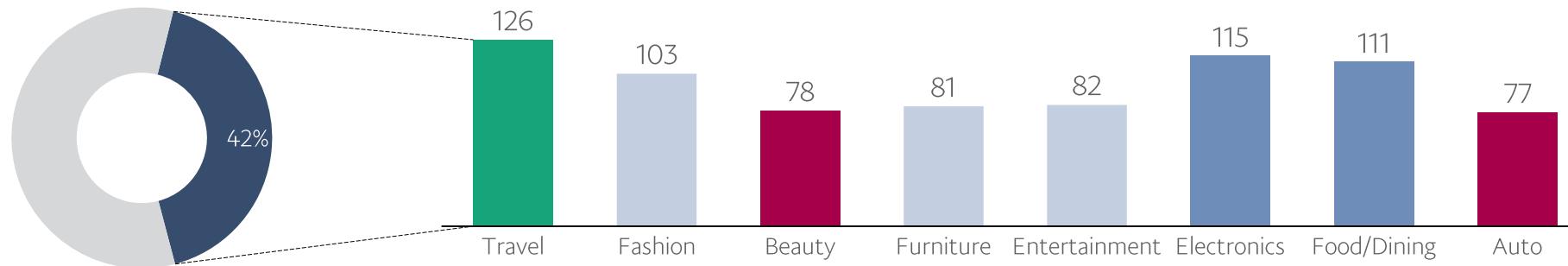
2 Digital wallets including: Apple Pay, Amazon Pay, Google Pay, Visa Checkout and Masterpass; Other is all brands not in the legend or included in digital wallets

3 Based on % TPV by vertical for Apple Pay across core market. Source of relationships: <https://www.apple.com/apple-pay/where-to-use/>

# Earned on 42% of total consumer spend, but only 25% of PayPal TPV is claimed to be associated with rewards

1 Consumers claim they received rewards<sup>1</sup> on 42% of TPV

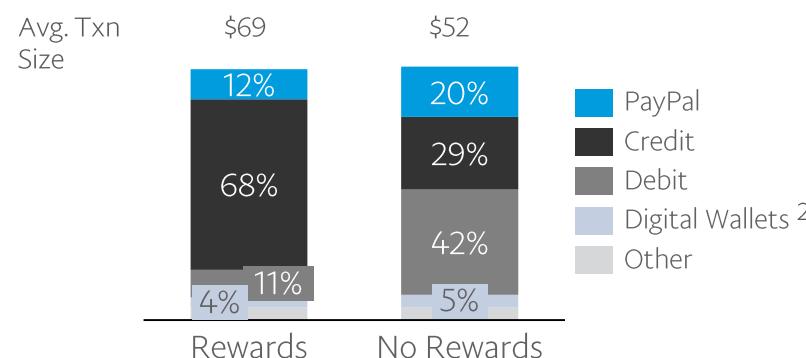
% OF TPV ON REWARD



2 The most common categories are: Travel followed by electronics and food/dining  
The least common categories are: Beauty and Auto

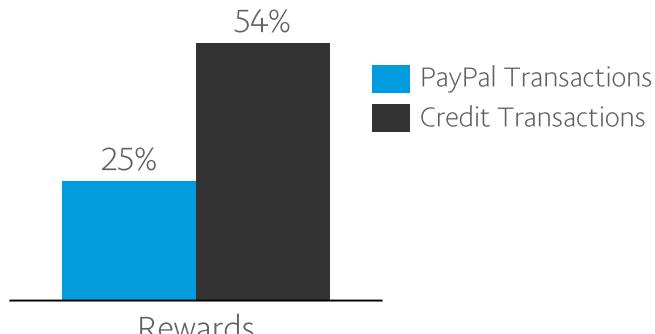
3 Credit is dominant in rewards while PayPal's share is significantly lower

MARKET SHARE OF REWARDS vs. NO REWARDS



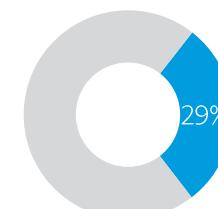
4 Most PayPal users do not claim to receive rewards on PayPal

% OF TPV PAYPAL USERS CLAIM TO RECEIVED REWARDS



REWARDS COMPREHENSION<sup>3</sup>

Can earn credit card rewards when paying with PP. Source: GIB February 2019



1 Consumer perception of rewards for each purchase.

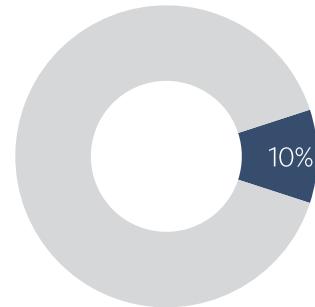
2 Digital wallets including: Apple Pay, Amazon Pay, Google Pay, Visa Checkout and Masterpass; Other is all brands not in the legend or included in digital wallets

3 Can still earn credit card rewards when paying with PP. Source: GIB February 2019 Comprehension among PayPal Customers.

# PayPal share is lower in recurring payments (19%) vs. one-time (23%)

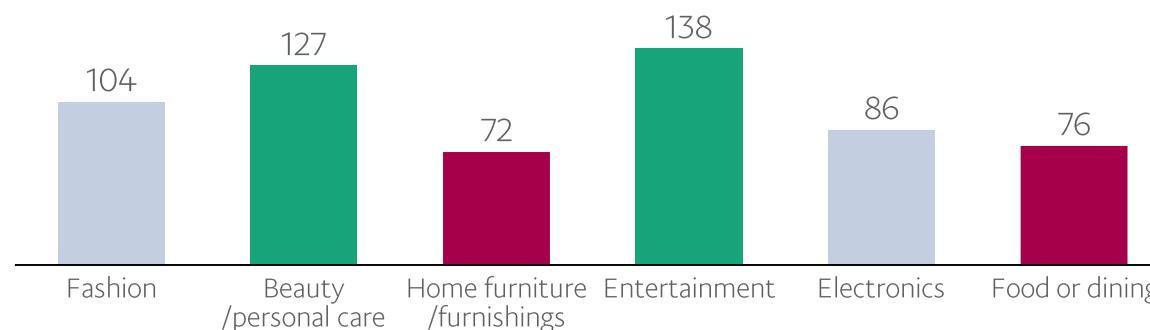
- 1 Consumers claim 10% of their TPV is recurring or subscription

% OF TPV RECURRING



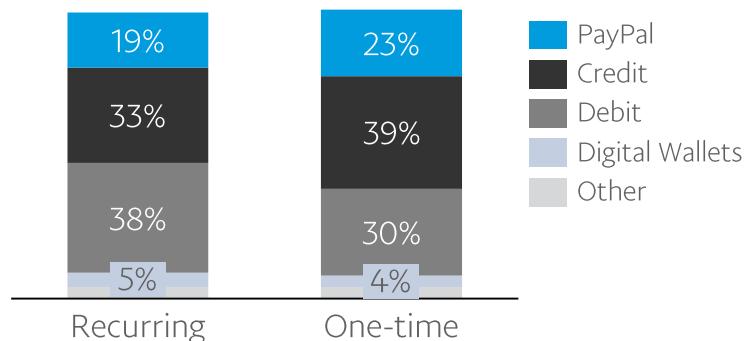
- 2 The most common recurring categories are: Entertainment and Beauty/personal care

% RECURRING INDEXED TO TOTAL



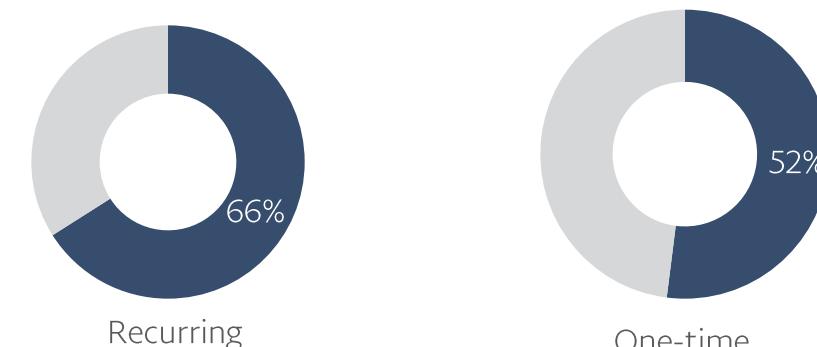
- 3 PayPal's share of recurring is 19%

MARKET SHARE OF RECURRING VS. ONE-TIME EX-TRAVEL



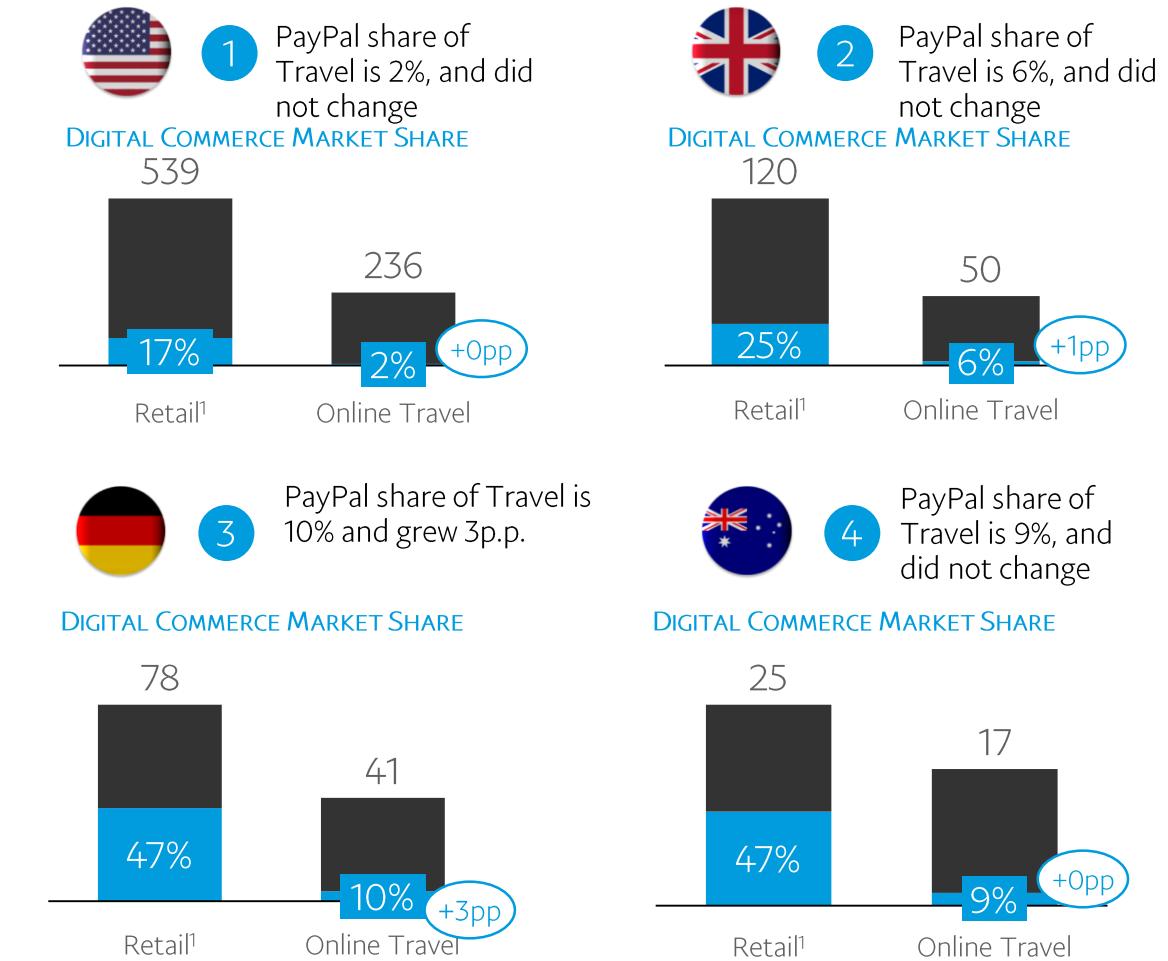
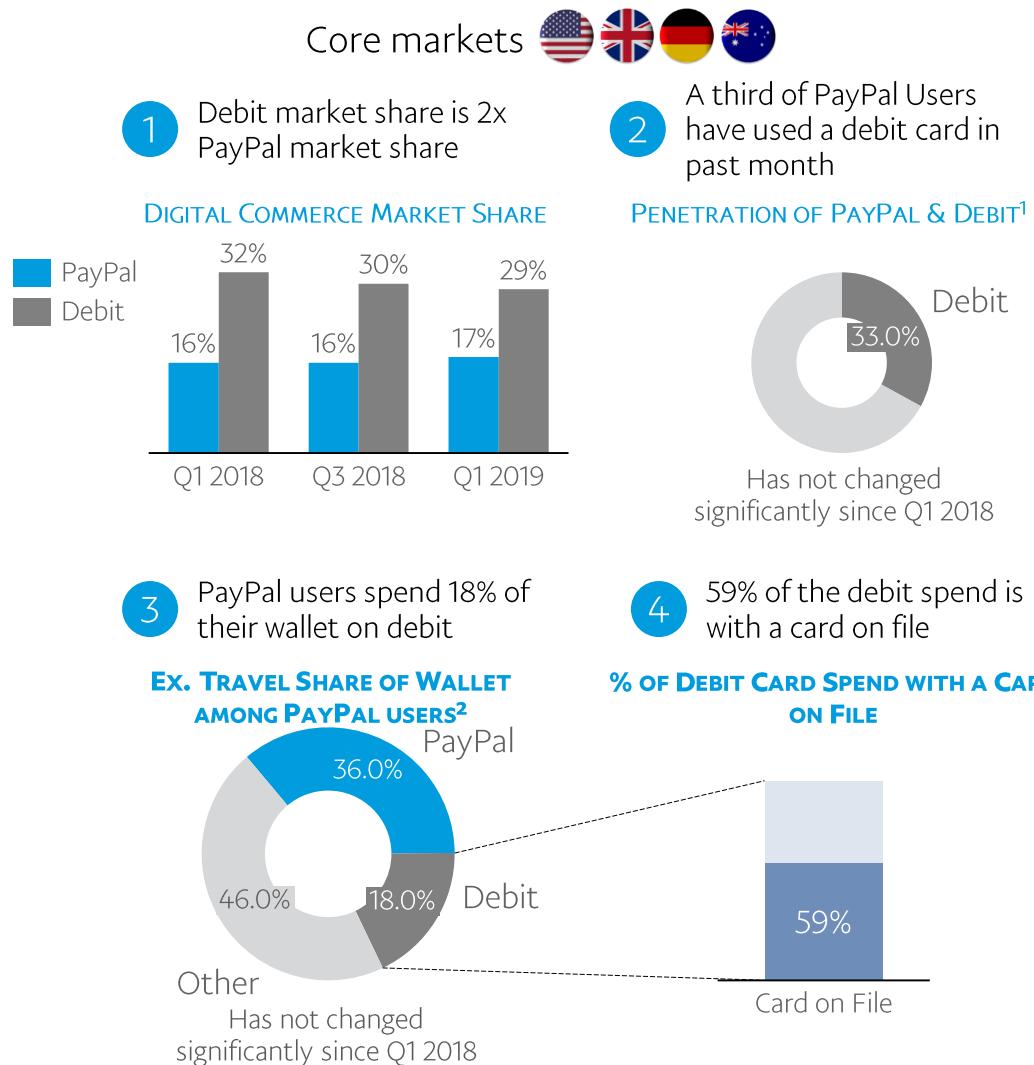
- 4 Nearly two-thirds of recurring payments are card on file compared to half for one-time

% OF CARD SPEND THAT IS ON FILE



<sup>1</sup> Digital wallets including: Apple Pay, Amazon Pay, Google Pay, Visa Checkout and Masterpass; Other is all brands not in the legend or included in digital wallets

# Debit and Travel remain as large opportunities; while Debit retains dominance, PayPal gained 3pp in Travel share for DE since Q1 2018



Margin of Error =  $\pm 2\text{pp}$ , within which PP changes are not statistically significant

# Market Share Monitor

## Q1 2019

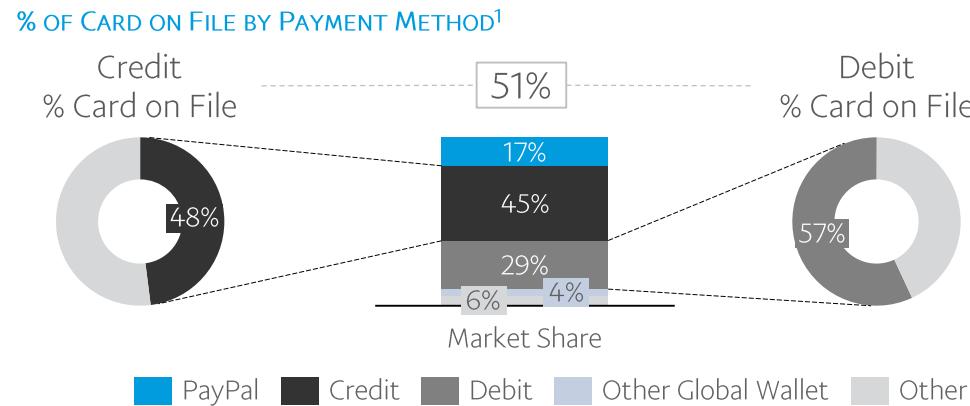
Core Markets Update

### Agenda

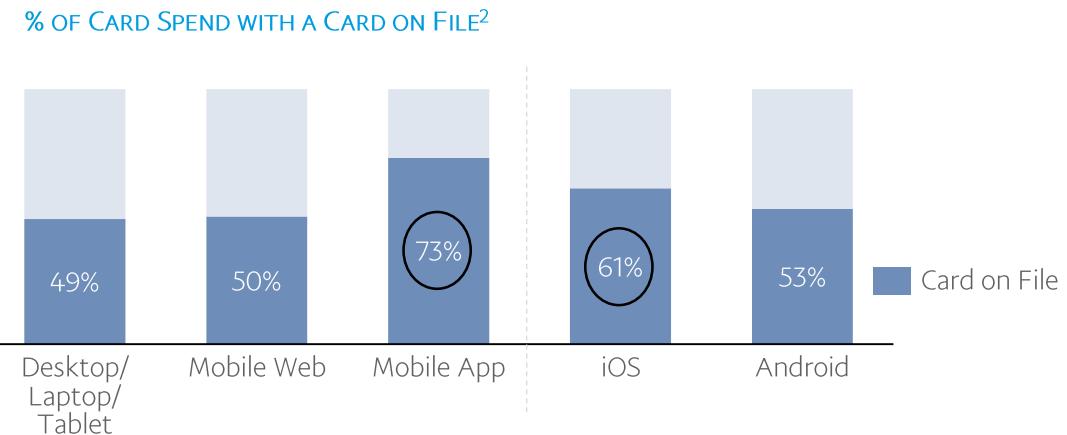
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# Half of card spend (51%) occurs on vaulted cards; stronger skew for iOS transactions (61% card TPV) and apps (73%)

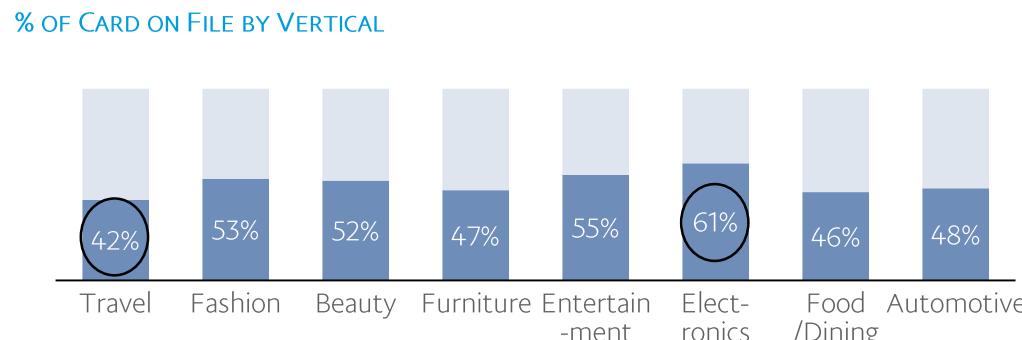
- 1 51% of card market share is done with a card on file (COF)



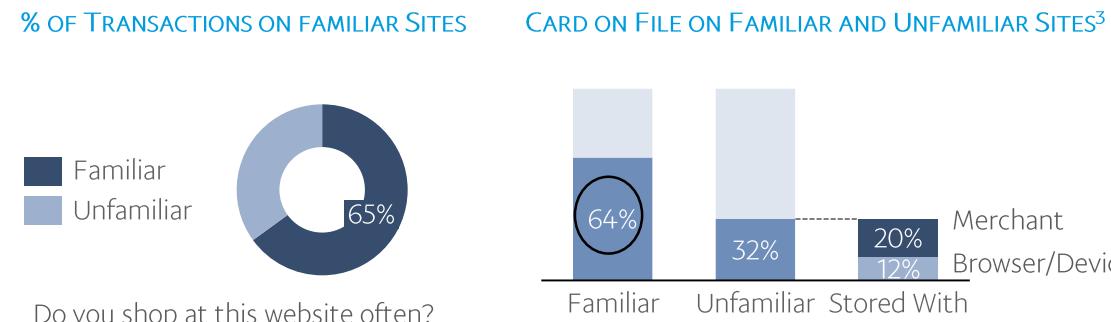
- 2 Card on file is more prominent with mobile apps, particularly on iOS



- 3 Card on file is most common in electronics and least in travel



- 4 65% of transactions are conducted on familiar sites and 64% of the card TPV on familiar sites is COF



1 % of COF for credit and debit cards respectively

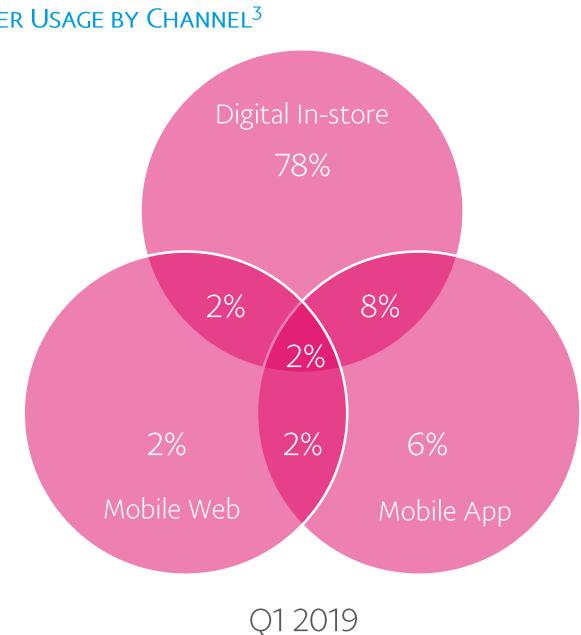
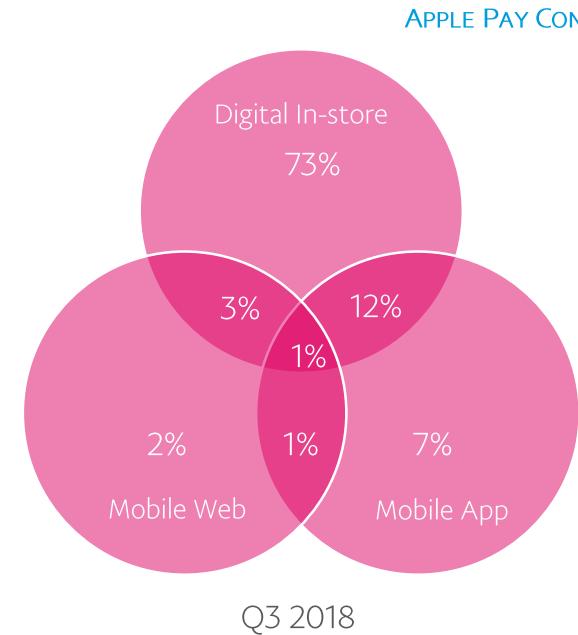
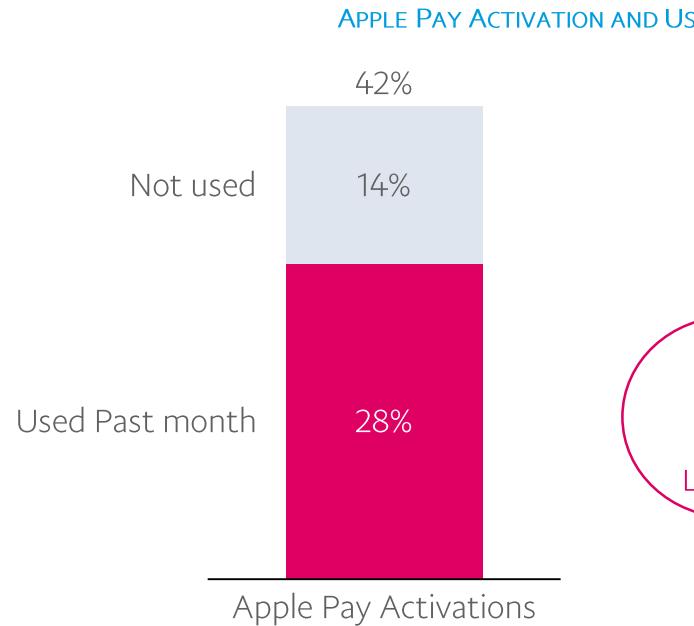
2 % of COF TPV relative to total card TPV on the given device

3 Do you shop at this website often? Familiar = Yes, Unfamiliar = No

# While 42% of iOS users activated, only 28% have transacted on Apple Pay; 78% of Apple Pay users are offline-online

1 42% of iPhone users claim to have activated<sup>1</sup> Apple Pay and 67% of activators (28% of iPhone users) have used Apple Pay

2 The portion of in-store only users increased from 73% to 78% since Q3 2018; only 10% use Apple Pay exclusively outside of stores



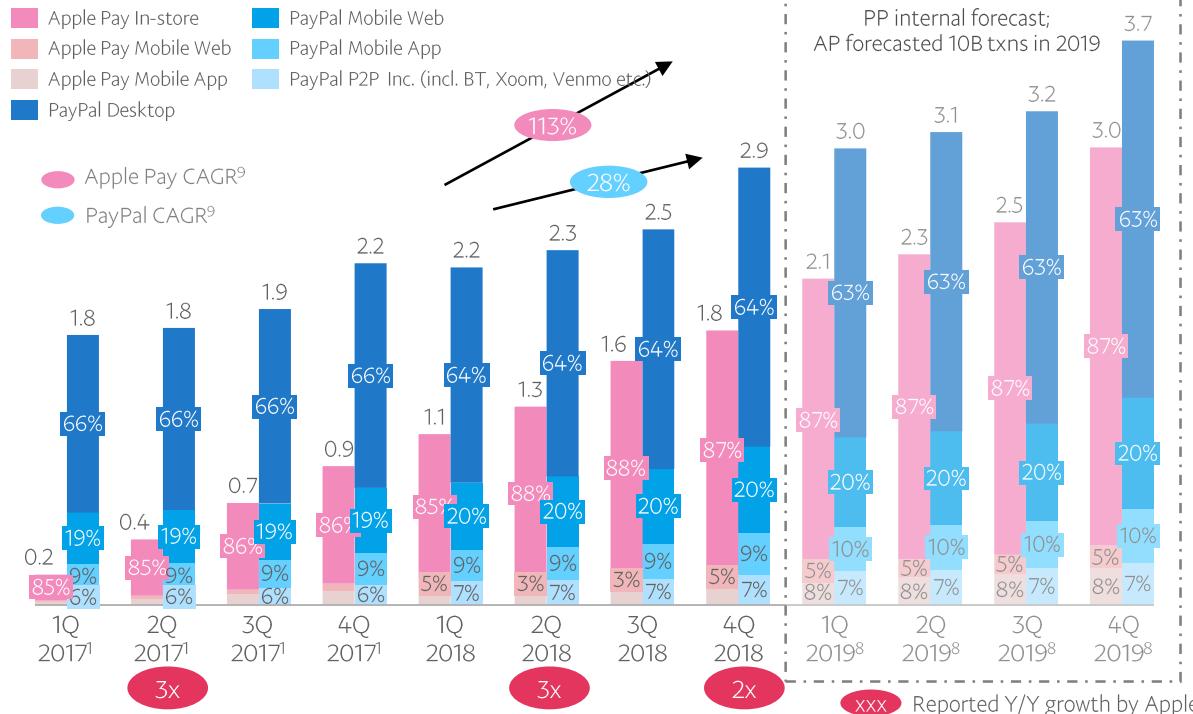
1 Have you activated Apple Pay on your smartphone?

2 How many cards or bank accounts, in total, do you have linked to Apple Pay? Among past month claimed Apple Pay users

3 % of people who claimed to use Apple Pay in each channel

# Apple Pay's announcement of 10B global txns in 2019 estimated to be ~\$360B in TPV (~50% of PP), with 82% coming from offline

## AP Global Txns (B)<sup>3</sup>



## Global figures are influenced by China as well:

- China is 3.3x size of US Retail Digital Commerce market
- Apple Pay reportedly ranks fifth in the Chinese market behind major Chinese payment providers, but significantly ahead of Amazon Pay, PayPal, Google Pay, and Facebook.<sup>5</sup>

1% Split of Txns/TPV were extrapolated in these periods by assumption

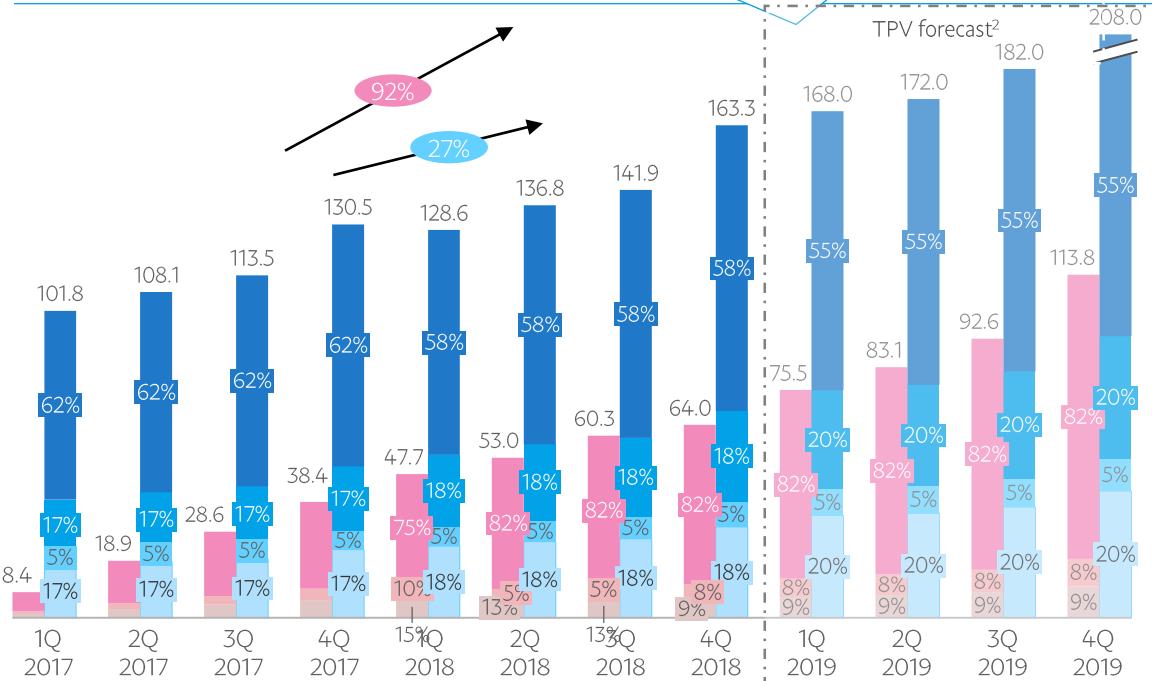
3 Source: Apple quarterly earnings transcripts;

5 Source: Statista and Patently Apple

7 Desktop/p2p txns were marginal, and clubbed into m-web.

9 CAGR estimated from 2017 – 2019. AP 2019 growth rate significantly lower than 2017/18 given larger base

## AP Global TPV (USD B)<sup>2, 4</sup>



Apple Pay TPV skewed further towards offline volume in past year (75% to 82% from Q1 2018 to Q1 2019)

Note: Apple Pay excludes Apple iTunes, App Store, and Digital In-App purchases

2 Estimated using AOV data from earnings transcripts and MSM diary for Q1 2018, Q3 2018 and Q1 2019

4 Source: MSM Diary estimates from Apple Pay transactions across Core markets, in mobile web, mobile

6. 10B txns in 2019 forecasted by Apple. PayPal 12.9B txns budget forecast for 2019

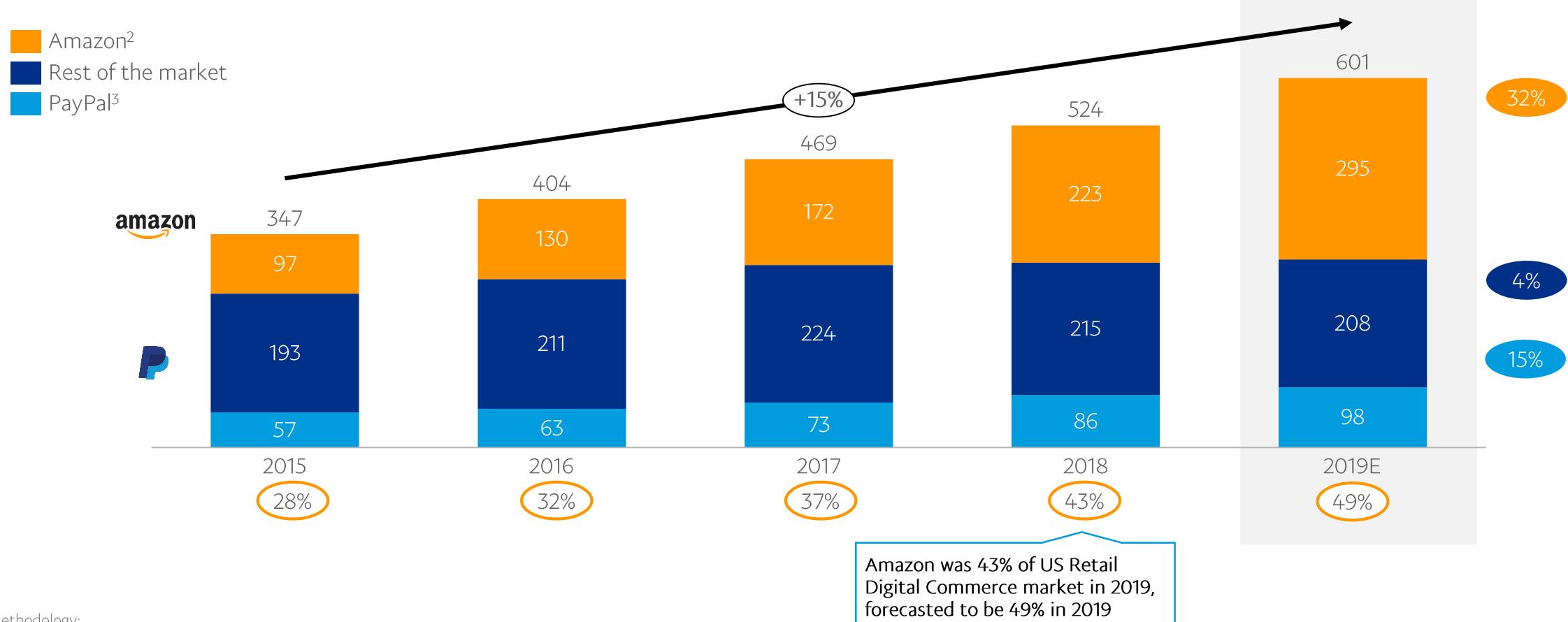
8 Assumed for 2019, derived from constraints of FY 10B txns and 4Q 2018 having 1.8B txns



# Amazon US continues to grow significantly faster than retail digital commerce market (~32% vs. 15% YoY), estimated to cover 49% of market in 2019

Amazon Growth in Retail Digital Commerce  
2015 – 2018 (USD B)

xx CAGR ('15-'18) xx Share of US online retail



## Methodology:

1 Digital Commerce ex. Travel/Online Retail market size determined via triangulation per MSM methodology

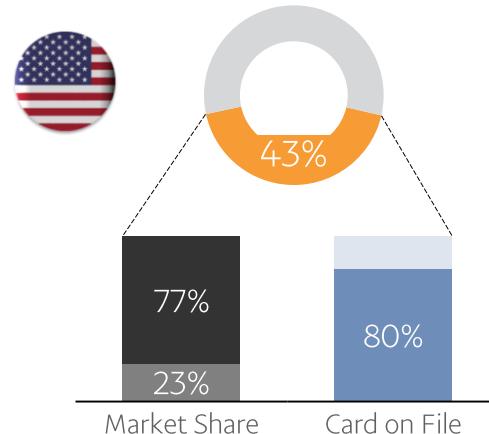
2 Amazon GMV triangulated from Euromonitor, 10-K analysis and E-marketer forecasts. Additional 10% haircut to GMV to exclude B2B, given MSM only covers B2C

3 PayPal TPV: US sent consumer and upgradeable guest TPV (eBay, MS, PPFM, WPS, Adaptive). PayPal verticals considered as "Travel": airlines & travel, rest of defined verticals classified as "Digital Commerce ex. Travel/Online Retail", unknown vertical distributed proportionally between "Travel" and "Digital Commerce ex. Travel/Online Retail" categories

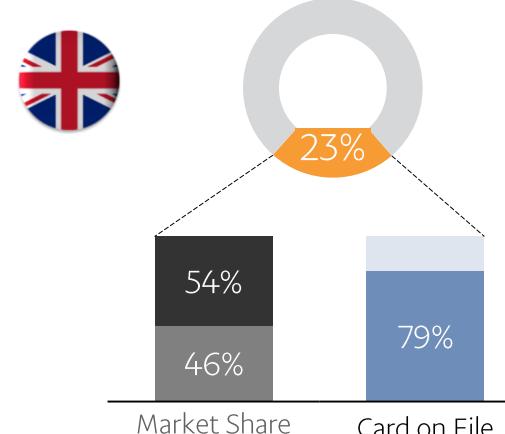
# 80% of US Amazon spend is via card on file; Prime users are 49% more likely to transact in a week vs. non-Prime users



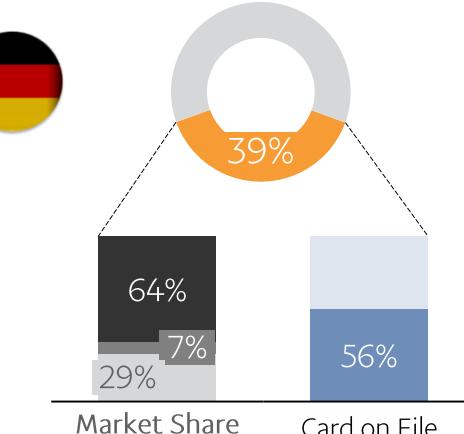
1 Amazon share of US online retail spend is 43% with 77% of spend on credit cards; 80% via vaulted cards



2 Amazon share of UK online retail spend is 23% with spend more equally split between credit and debit and 79% via vaulted cards



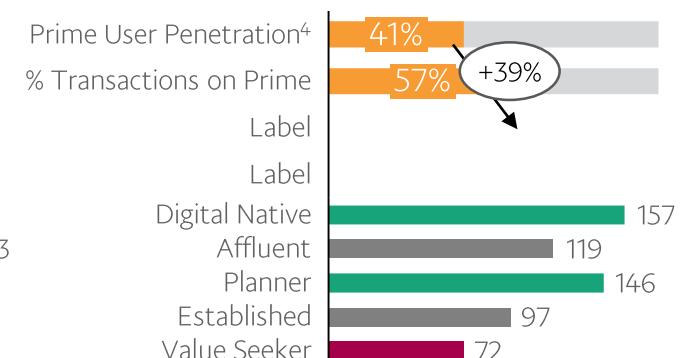
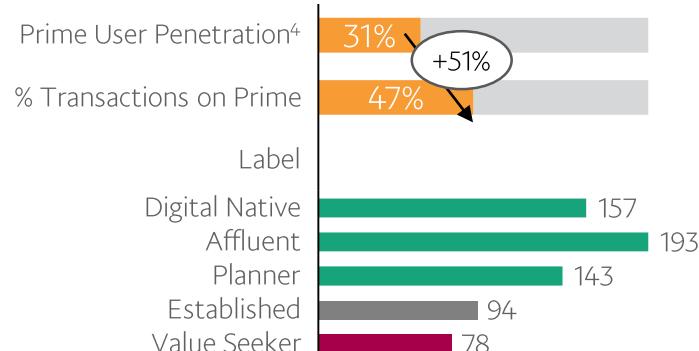
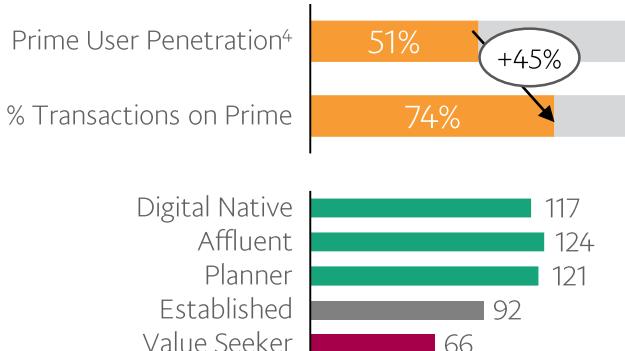
3 Amazon share of German online retail spend is 39% with 64% of spend on credit cards and 56% via vaulted cards



4 Proportion of Amazon transactions from Prime-user transactions is 1.5<sup>3</sup> the penetration of Prime users in the market, indicating Prime-users are highly engaged over non-Prime users



**AMAZON PRIME DEMOGRAPHIC COHORT**



1 Amazon Share of retail digital commerce; Source: Triangulation of Euromonitor, eMarketer & Amazon 2018 10-K

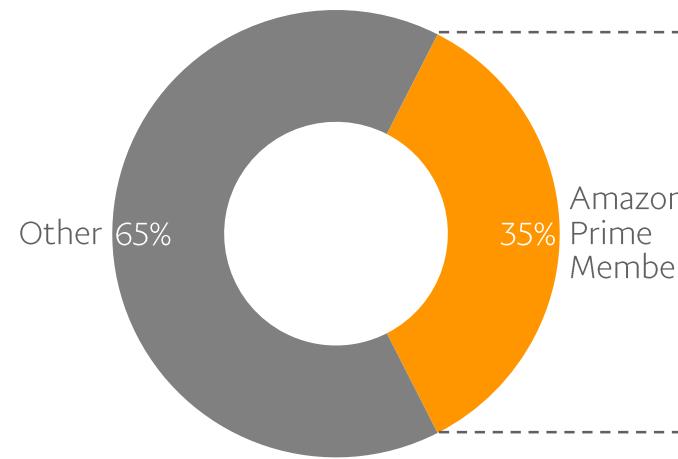
2 In DE, Other refers to local payment methods like Rechnung and Latschrift

3 Country increase weighted by country share of Amazon TPV

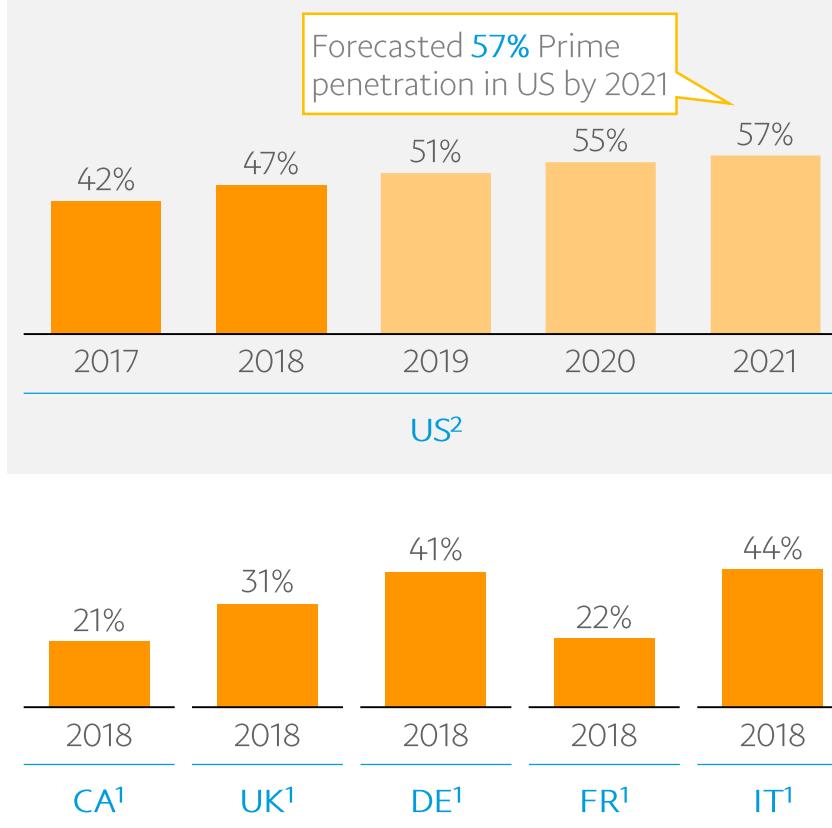
4 Prime penetration is a triangulation of Forrester data and MSM diary

## Prime penetration in 2018 highest in US (47%) , followed by IT (44%) & DE (43%)

### Penetration across US, CA, UK, DE, FR, IT<sup>1</sup>

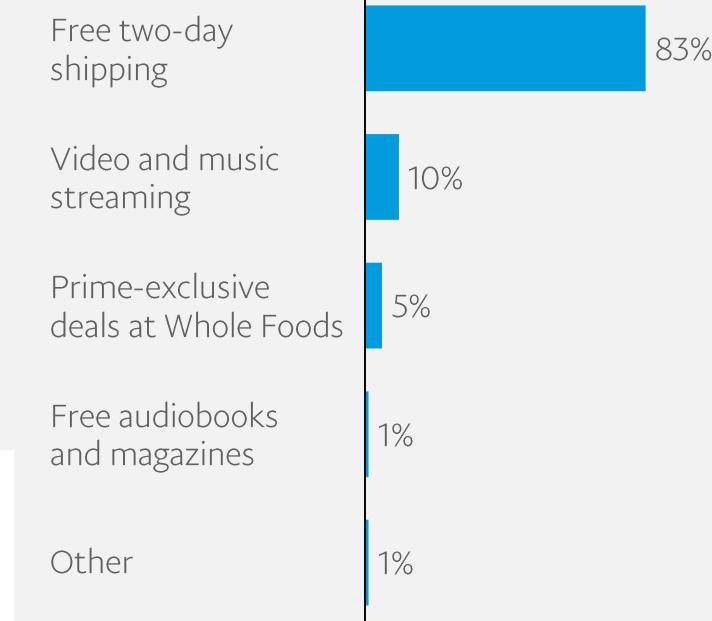


### Penetration by Market



### What do US Amazon Prime Members Like Most About Prime?<sup>3</sup>

% of respondents, Feb 2019



Note: Amazon Prime members ages 18+ who have purchased a product on Amazon in the past 24 months

<sup>1</sup> Triangulation of Forrester Consumer Survey, 2018 and MSM Diary Data for US, UK, DE. Only Forrester used for FR, IT. Other countries were not surveyed by Forrester or MSM

<sup>2</sup> Emarketer forecast

<sup>3</sup> Emarketer report



# Venmo retains strength in North-East/Pacific US, while Cash App stronger in South

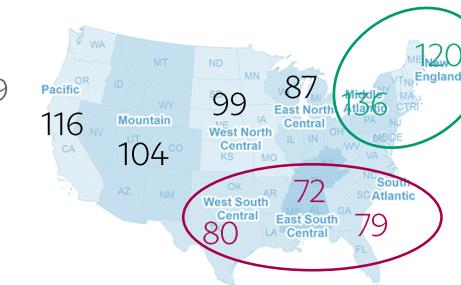
- 1 Venmo is 5.2x larger than Cash App
- 2 Venmo and Cash app both over-index on digital native
- 3 Venmo over-indexes on users in North-East and Pacific US geographies, however Cash app over-indexes on users in the South

**Q3 2018**

## Venmo

### USER PENETRATION INDEX<sup>2</sup>

Digital Native	159
Affluent	106
Planner / Established	80
Value Seeker	36

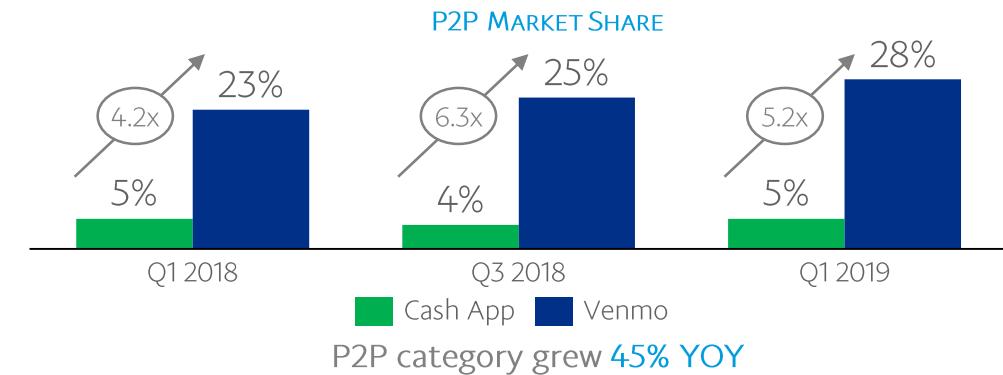
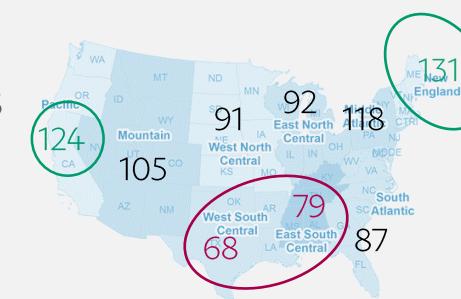


**Q1 2019**

## Venmo

### USER PENETRATION INDEX<sup>2</sup>

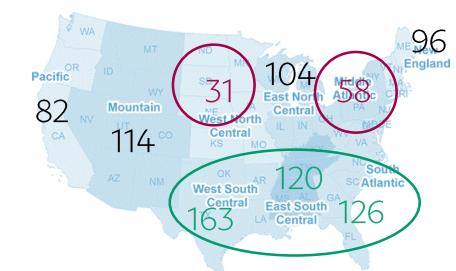
Digital Native	163
Affluent	105
Planner / Established	79
Value Seeker	37



## Cash App

### USER PENETRATION INDEX

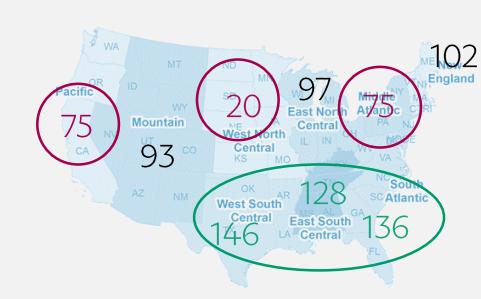
Digital Native	177
Affluent	56
Planner / Established	69
Value Seeker	65



## Cash App

### USER PENETRATION INDEX

Digital Native	181
Affluent	57
Planner / Established	72
Value Seeker	70



1. In the past month, have you sent money to a friend, family member, colleague or individual using any of the following methods? February/August 2018 and August 2018/February 2019 combined for a rolling average; 2. Indexed to P2P category users. An index of 120 means for that brand the group or region, past month usage is 20% higher than for P2P users on average.

# Market Share Monitor

## Q1 2019

Core Markets Update

### Agenda

1. Market Overview
2. Strategic Insights
  1. Opportunities
  2. Threats
  3. Market Share
3. Country Snapshots
  1. Core Markets
  2. Emerging Markets

# Venmo in the US and PayPal (digital commerce, P2P) in DE have grown; in AU, After Pay (digital commerce) and Osko (P2P) have shown gains while PayPal (P2P) has declined

## Core Markets: Q1 2019

	 US	 UK	 DE	 AU
Digital Commerce \$1,127B	No notable changes	No notable changes	<a href="#">PayPal</a> has grown 2.2pp since Q3 2018 and 3.7pp since Q1 2018	<a href="#">Afterpay</a> has shown steady growth up 3.3 pp since Q1 2018
Digital P2P \$287B	<a href="#">Venmo</a> continues to grow faster than the market gaining 5.6 pp since Q1 2018	No notable changes	<a href="#">PayPal</a> has gained 2.6pp in P2P since Q3 2018	<a href="#">Oska</a> has grown faster than the market, gaining 4.4 pp while <a href="#">PayPal</a> has lost 2.9pp of share since Q3 2018
Digital In-store \$94B	No notable changes	No notable changes	No notable changes	No notable changes

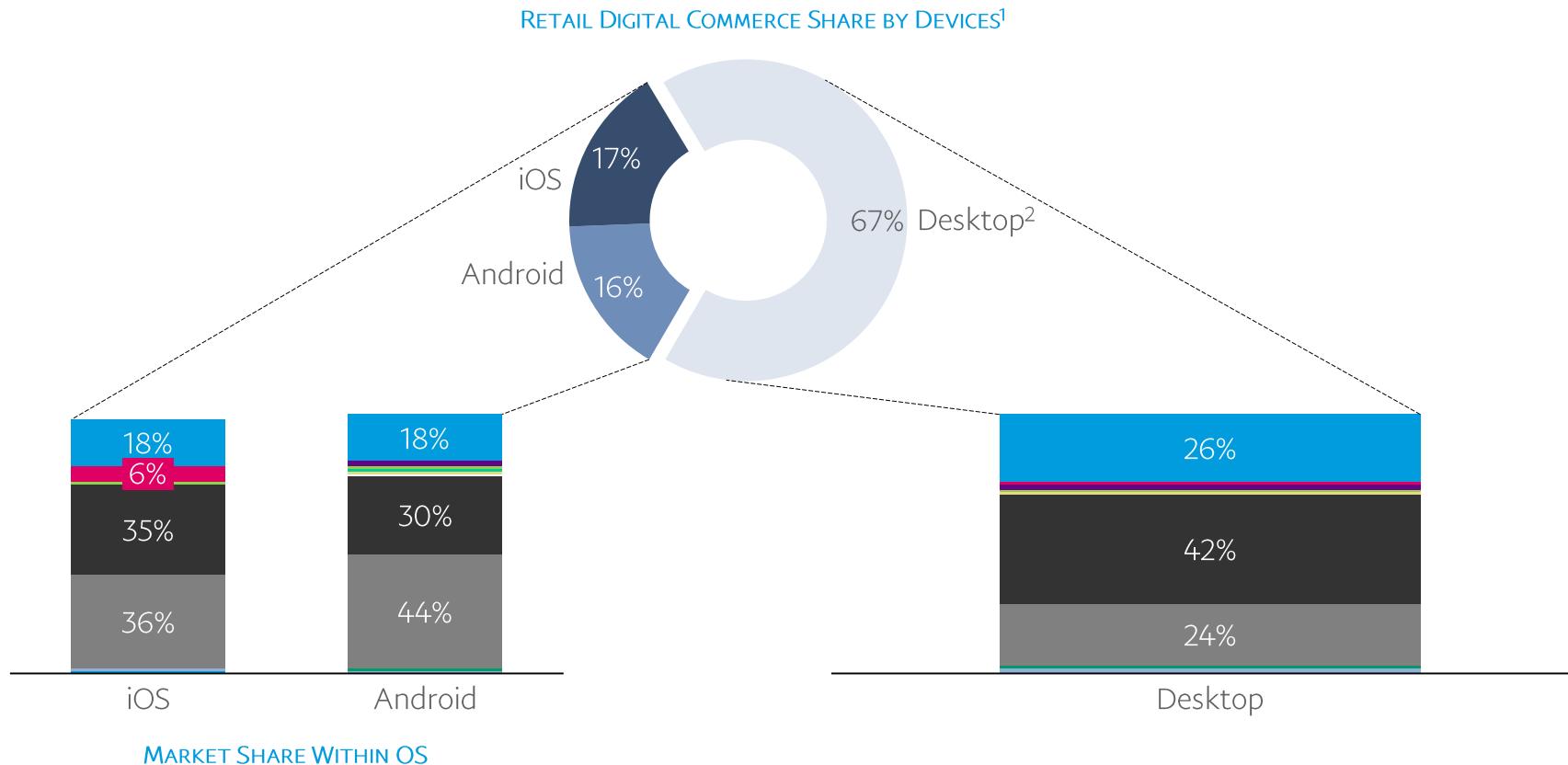
Approx. Change in Share (± 2 p.p.)

# PayPal has lower mobile share (18%) compared to desktop<sup>2</sup> (26%)

1 Mobile forms 33% of retail<sup>1</sup> digital commerce spend, and PayPal's mobile market share is strongest among digital wallets



2 Desktop accounts for 67% of retail digital commerce spend, where PayPal has a higher share than mobile (25%)



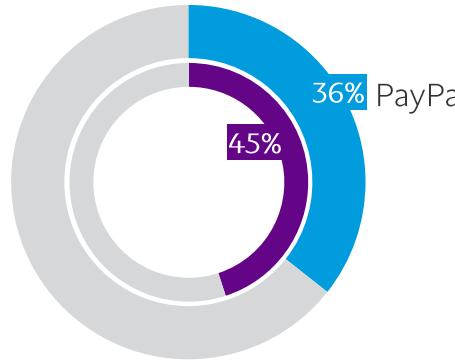
1 Retail refers to ex-Travel market

2 Desktop refers to Desktop/laptop/tablet

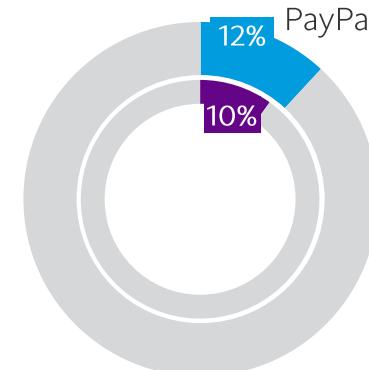
# In Digital Commerce Retail, PayPal users spend 36% of their wallet on PayPal, in contrast to only 12% in Travel; PayPal remains under-indexed on Affluent share

SHARE OF SPEND & TRANSACTIONS ON PAYPAL,  
AMONG PAYPAL USERS

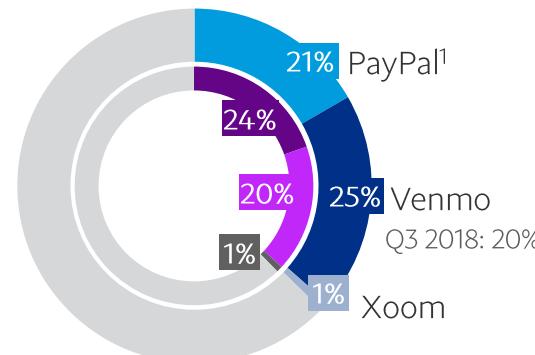
**Digital Commerce - Retail**



**Digital Commerce - Travel**



**Digital P2P**



Share of:

- Spend on PayPal
- Transactions on PayPal
- Spend on Venmo
- Transactions on Venmo
- Spend on Xoom
- Transactions on Xoom

PAYPAL MARKET SHARE AND PENETRATION INDEXING<sup>1</sup> BY  
DEMOGRAPHIC COHORTS



1. Market Share Index = % Brand Market Share among each demographic / % Category Market Share among each demographic. Penetration Index = % Brand Penetration among each demographic / % Category Penetration among each demographic.

# Digital Commerce Summary: Tracking Momentum on Competitor Battlefield

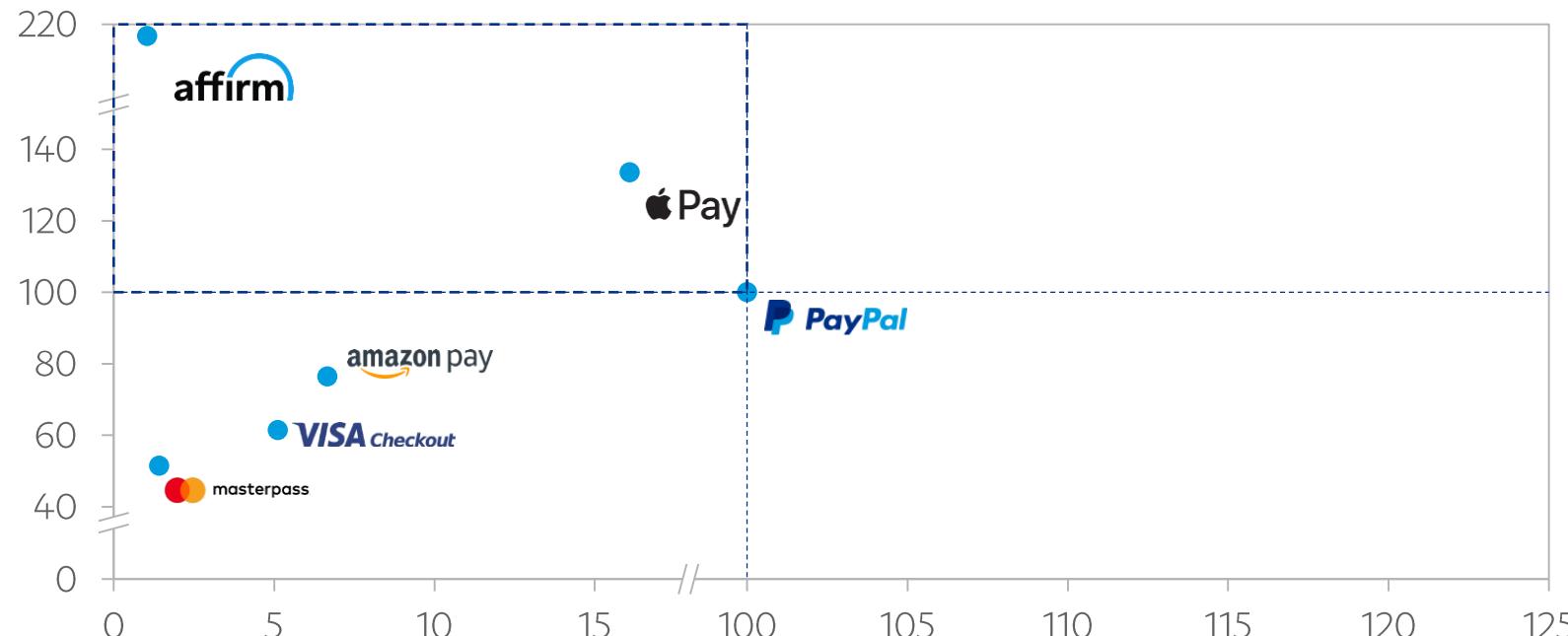


All countries/contexts in appendix

Q1 2019 Market Size Estimate – \$783B

Market Y/Y Growth – 9.93%

Y/Y Momentum (TPV Growth indexed to PayPal<sup>6</sup>)



Critical competitors to watch

1. Sources: Interview with VP, Business Development; [American Banker](#)
2. Sources: Manager, BD; Product Manager, Digital Payments
3. Source: Director, Product
4. Sources: Manager, Product; [Newsroom](#)

5. Sources: Sr. Manager; Sr. Director, Merchant Relations
6. (Competitor Value) / (PayPal Value). PayPal TPV is consumer + guest upgradeable sent; across MS, WPS, PP4P, Adaptive (excludes any unbranded)



Pushed to expand acceptance in major stores such as Hoover's and Wayfair. Moved into travel; now accepted at Orbitz, Expedia, and Travelocity. Late 2018: Launched a retail discovery tool allowing users to find merchants that accept Affirm. Early 2019: Deal with Walmart<sup>1</sup>



Experimenting with Alexa integrations, noted as currently unsuccessful, but hopeful for 2019-2020.2019: Amazon/WorldPay partnership to allow access for Amazon Pay as an option for 40 billion global transactions<sup>2</sup>



Apple is growing rapidly with increasing merchant adoption in US. Globally reported to have 10B txns in 2019.<sup>3</sup>



Launched the ability for Masterpass to be used for purchases inside Facebook Messenger, but still has low adoption.<sup>4</sup>



Tactic for growth: adding partnerships to ensure a smooth consumer checkout process.<sup>5</sup>

# P2P Summary: Tracking Momentum on Competitor Battlefield

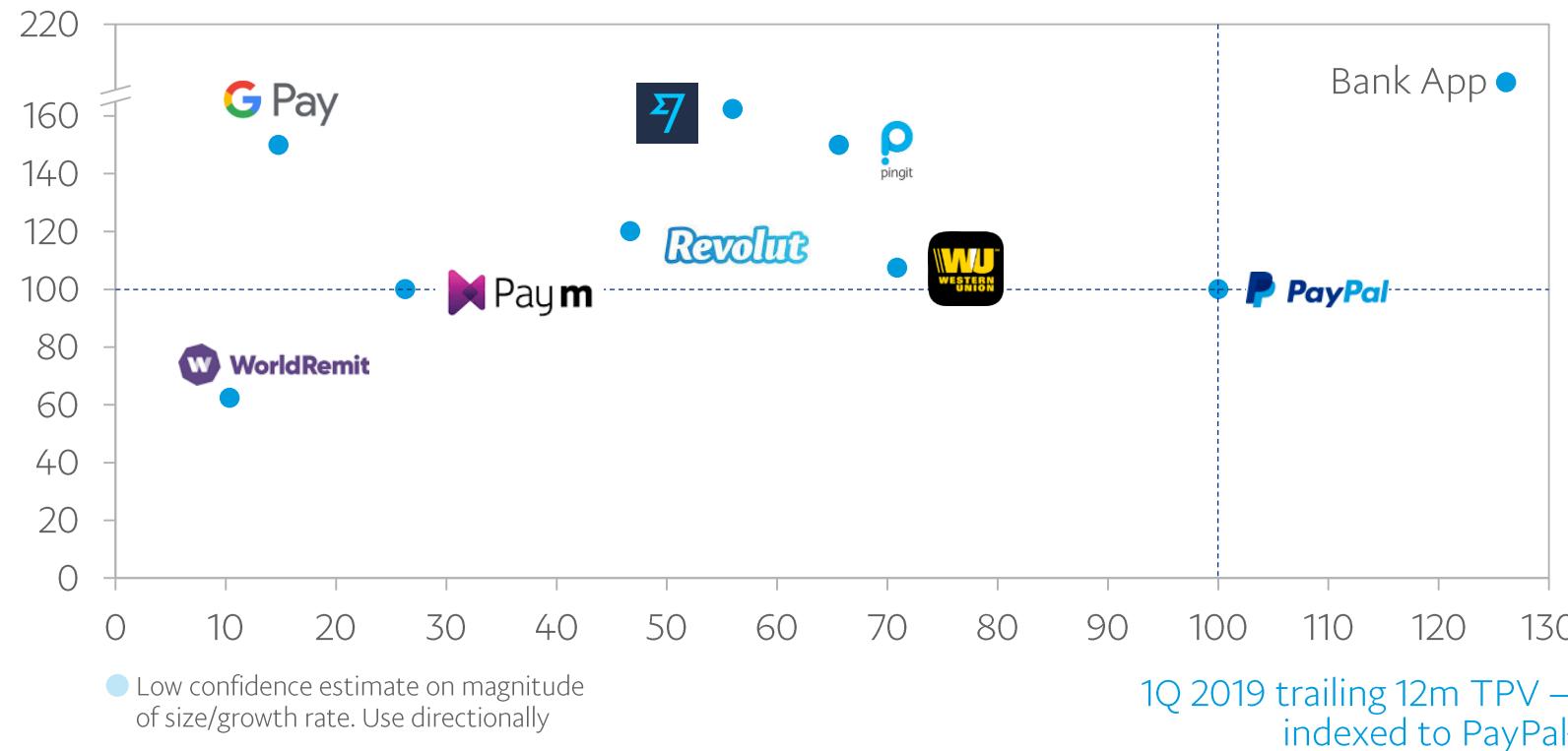


All countries/contexts in appendix

Q1 2019 Market Size Estimate – \$20B

Market Y/Y Growth – 18.55%

Y/Y Momentum (TPV Growth indexed to PayPal<sup>6</sup>)



Consolidated Android Pay, Google Wallet, and Google Pay into G Pay.<sup>1</sup>



Better positioned for Brexit uncertainties compared to some competitors due to heavier domestic vs. XB volume.<sup>2</sup>



Recently launched “Borderless Account” offering.<sup>3</sup>



Brexit casts uncertainty on what will happen with XB, which could potentially knock their overall figures into negative growth. Focusing on decreasing friction of transferring money through the mobile app.<sup>4</sup>

1. Source: UK Manager

2. Source: Head of Business Development

3. Source: Business Development Manager

4. Source: Senior Business Development Manager

5. (Competitor Value) / (PayPal Value). PayPal TPV is consumer + guest upgradeable sent; across P2P G&S, P2P F&F, Invoicing

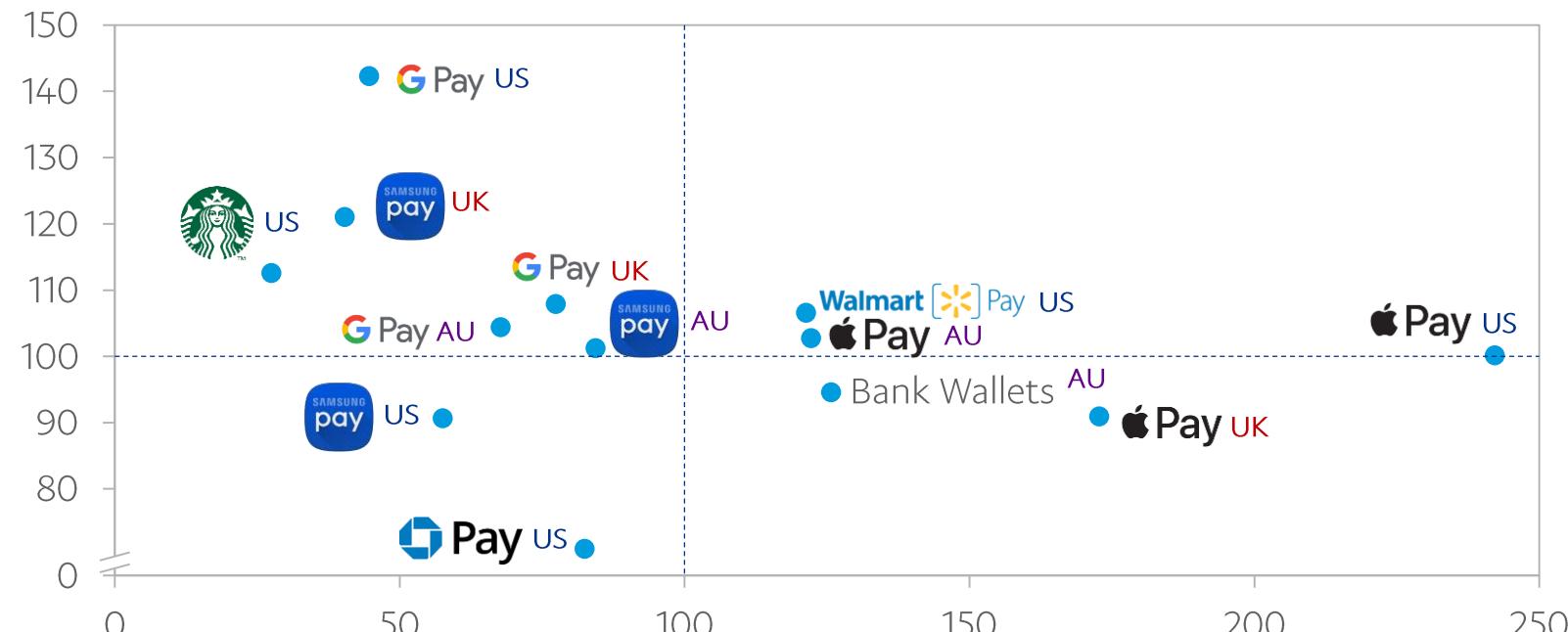
# Digital In-store Summary: Tracking Momentum on Competitor Battlefield

Across US, UK, AU. Market too small to show in DE

Q1 2019 Market Size Estimate – \$10B

Market Y/Y Growth – 61.18%

Y/Y Momentum (TPV Growth indexed to category average within a country)



Note: Given PP does not exist in-store, a competitor in a country is positioned relative to competitors in that country



Decreased friction in signing up for and using Apple Pay in newer generation iPhone (8 & X) models.<sup>1</sup>



Consolidated Android Pay, Google Wallet, and Google Pay into G Pay. January 2019: announced expansion of partnership with Wirecard's mobile payment solution "boon."<sup>2</sup>



Attempting to drive usage through rewards.<sup>3</sup>

1. Source: Senior Director

2. Source: UK Manager

3. Source: UK Manager

4. PayPal value is close to 0 since we do not have a competing consumer branded ins-store product. Hence competitors are indexed to their average value

P

# Market Share Monitor

## Q1 2019

Core Markets Update

### Agenda

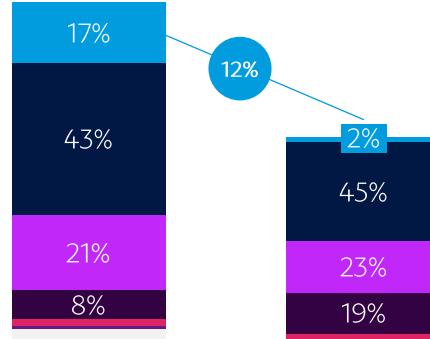
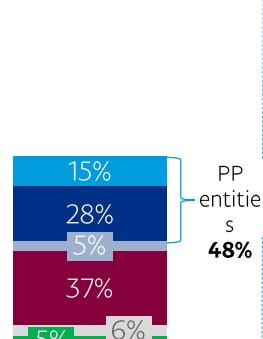
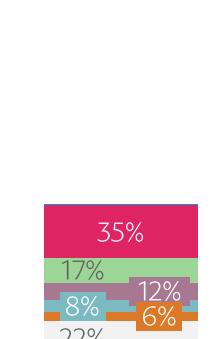
1. Market Overview
2. Strategic Insights
  1. Opportunities
  2. Threats
  3. User Profiles
3. Country Snapshots
  1. Core Markets
  2. Emerging Markets

Margin of Error: ±2 pp



# Estimated US Market Share – 2019 Q1 Results

Total Digital Payments: \$1112B

Digital Commerce  
\$775BRetail<sup>1</sup>  
\$539BTravel  
\$236BDigital P2P  
\$240BDigital In-Store  
\$97B

- PayPal (17% / 2%)
- Venmo (0% / 0%)
- Visa (43% / 45%)
- Mastercard (21% / 23%)
- Amex (8% / 19%)
- Apple Pay (2% / 2%)
- Amazon Pay (1% / 0%)
- Square Cash (0% / 0%)
- Other (7% / 7%)

Other includes: Discover (4%/4%), Masterpass (0%/0%), Visa Checkout (1%/0%), Google Pay (1%/0%), Samsung Pay (1%/0%), Affirm (0%/0%)

- PayPal (15%)
  - Venmo (28%)
  - Xoom (5%)
  - Banks/Zelle (37%)
  - Western Union (6%)
  - Square Cash (5%)
  - Apple Pay (0%)
  - Other (4%)
- Other P2P includes:  
Facebook (2%),  
MoneyGram (1%), Google Pay (1%), Transferwise (0%), World Remit (0%), Azimo (0%)

- Digital Commerce:** PayPal (17%) emerges as third strongest player in retail<sup>1</sup> market after Visa (43%) and Mastercard (21%) but still lags in travel. Other key players are:
  - Amex:** driven by higher share of the travel market
  - Other digital wallets:** limited market share with combined 4% of the retail market (i.e., Apple Pay, Amazon Pay, Masterpass, Visa Checkout, Google Pay)
- Digital P2P:**
  - PayPal equities** lead the market with nearly half the P2P share
  - Bank apps led by Zelle** command a sizable portion as well with 37% share, while the tail of the sector is fragmented with a number of smaller players
- Digital In-Store:**
  - Apple Pay** continues to lead the market with a third of the share.

1 Digital Commerce Ex-Travel Market, which equals Retail + Selected Services.

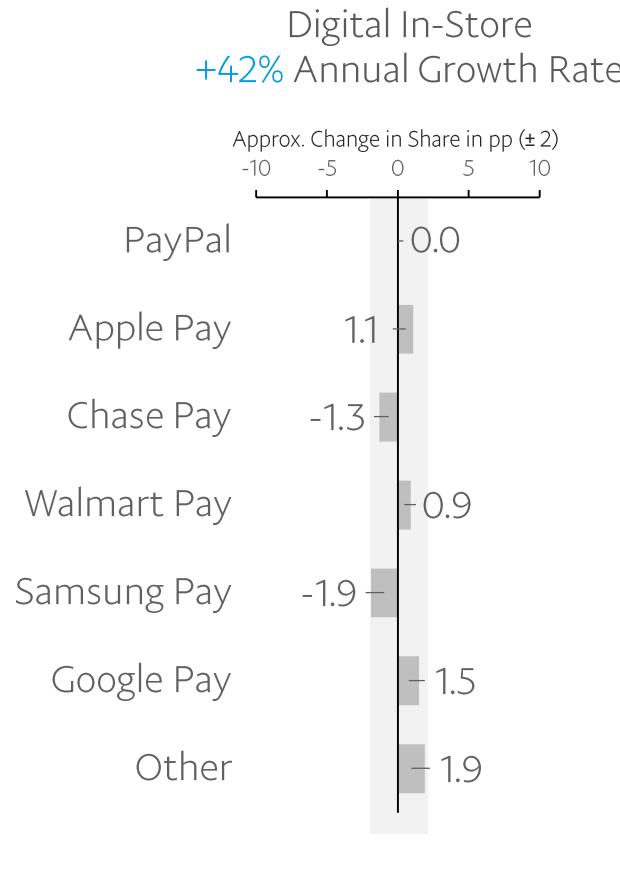
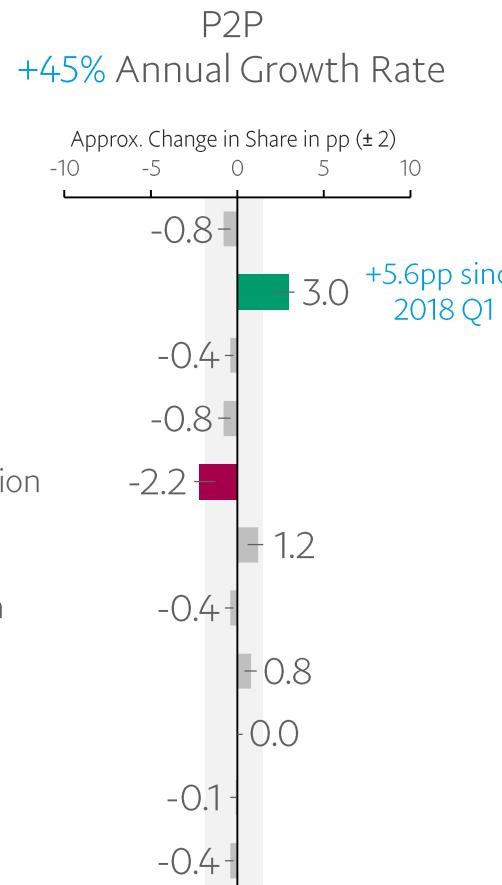
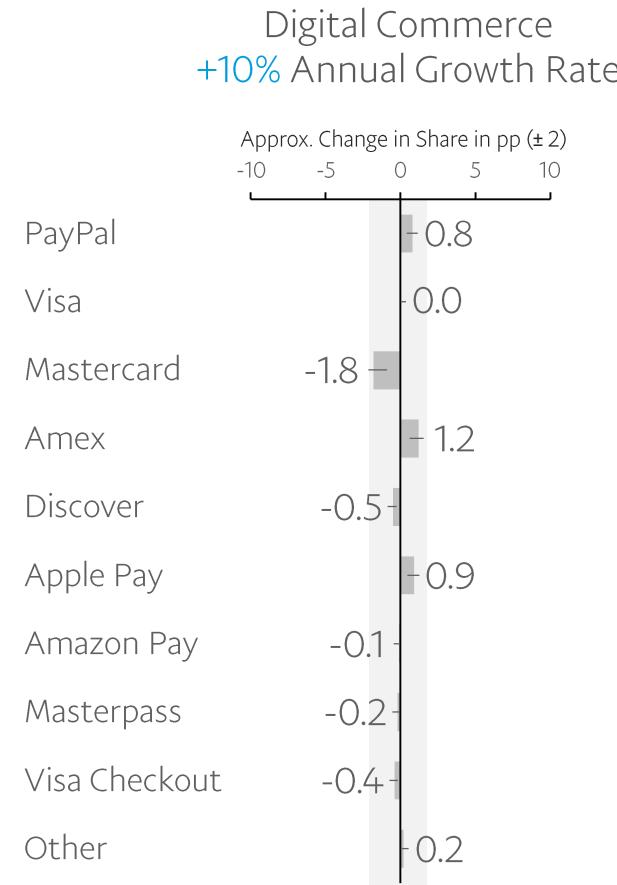
2 Chase Pay has been restated down since Q3 2018

Margin of Error: ±2 pp



# Estimated US Market Share – Evolution<sup>1</sup> Since 2018 Q3

Venmo, within P2P, is the only brand showing consistent growth since Q1 2018 with a 5.6pp increase



- █ Positive share change greater than the 2pp margin of error
- █ Negative share change greater than the 2pp margin of error
- █ No significant change relative to the margin of error

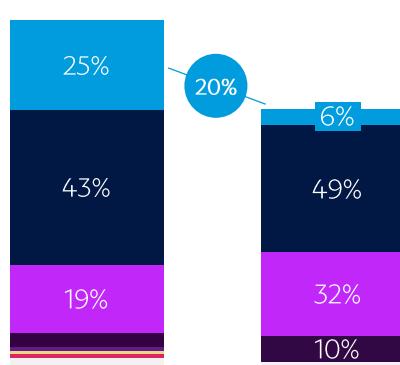
<sup>1</sup> Based on re-aligned share estimates among brands common to both timeframes for a direct comparison.

Margin of Error: ±2 pp



# Estimated UK Market Share – 2019 Q1 Results

Total Digital Payments: \$202B

Digital Commerce  
\$170BRetail<sup>1</sup>  
\$120BTravel  
\$50B

20%

6%

49%

32%

10%

PayPal

Digital P2P  
\$20B

16%

46%

10%

7%

8%

Digital In-Store  
\$13B

43%

19%

10%

27%

- **Digital Commerce:** PayPal retail share (25%) remains strong in the UK, only trailing Visa

- **Mastercard** has a stronger position than PayPal in travel while lagging in retail
- **Amex:** limited retail market share with only 4%, but stronger in Travel (10%)
- **Klarna:** Swedish bank offering buy now, pay back in installments solution currently has a small share of the retail market
- **Other wallets** represent a fragmented tail in digital commerce

## Digital P2P:

- **Banks** dominate the market with almost 50% share
- **PayPal** is next with 16% share
- **Rest of the market** fragmented with ~10% share or less

## Digital In-Store:

- **Apple Pay** leads among phone providers (43%)
- Non-phone device providers have almost 30% share of market

Other includes: Masterpass (1%/0%), Visa Checkout (1%/1%), Google Pay (0%/0%)

Other P2P includes:  
MoneyGram (3%), World Remit (1%), Circle (1%), Google Pay (1%), Azimo (0%), Facebook (0%),

1 Digital Commerce Ex-Travel Market, which equals Retail + Selected Services

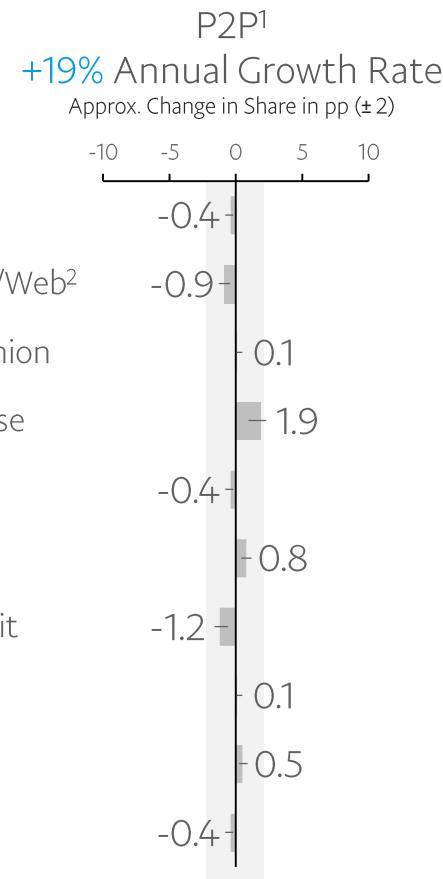
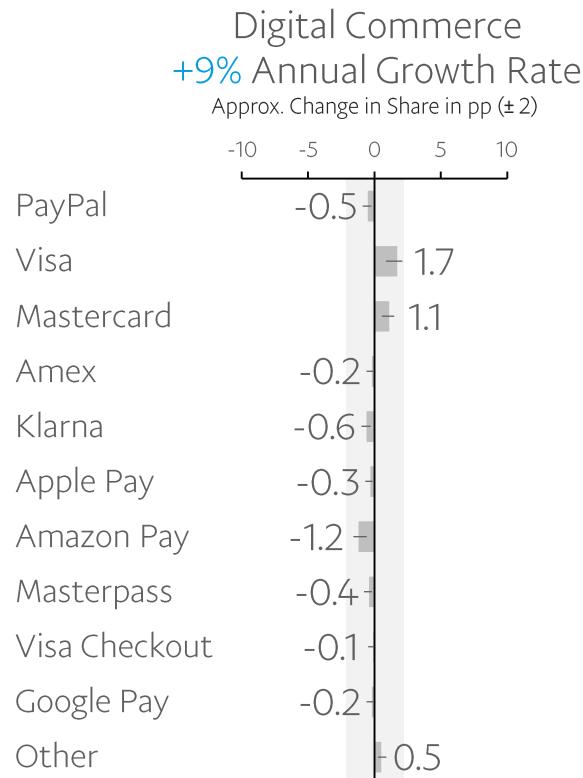
2 Banks includes Bank apps/website, Pingit and PayM

Margin of Error: ±2 pp



# Estimated UK Market Share – Evolution<sup>1</sup> Since 2018 Q3

No significant changes in share emerged in the UK in any of the three payment categories



- █ Positive share change greater than the 2pp margin of error
- █ Negative share change greater than the 2pp margin of error
- █ No significant change relative to the margin of error

<sup>1</sup> Based on re-aligned share estimates among brands common to both timeframes for a direct comparison.

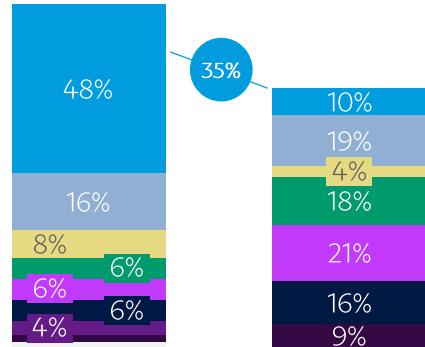
<sup>2</sup> Banks includes Bank apps/website, Pingit and PayM

Margin of Error: ±2 pp



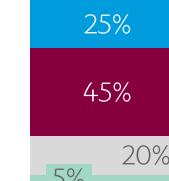
# Estimated DE Market Share – 2019 Q1 Results

Total Digital Payments: \$135B

Digital Commerce  
\$118BRetail<sup>1</sup>  
\$78B

34%

PayPal

Digital P2P  
\$16BDigital In-Store  
N/A because of small  
market

Other includes: Paydirekt (1%/0%), Vorkasse (1%/0%), Visa Checkout (0%/0%), Google Pay (0%/0%)

Paypal dominates Retail digital commerce in Germany.

- **Digital Commerce:** PayPal has a strong leadership position in retail
  - **Direct debit:** Purchases made by manually entering bank account details. Reported share **excludes** payments made via Rechnung (invoicing). Direct debit is more common for Travel than for Retail.
  - **Rechnung:** Refers to unbranded invoicing payments
  - **Klarna:** Swedish bank offering buy now, pay back in installments solution (share includes branded invoicing + Sofort banking TPV)
  - **Credit cards** do not have a strong market position in retail, but they do have a stronger share in travel
- **Digital P2P:**
  - Banks lead with **PayPal** and **Western Union** splitting much of the remaining share.

Other P2P includes: Wavy (1%), Transferwise (1%), Paydirekt (1%), Google Pay (1%), Azimo (0%)

1 Digital Commerce Ex-Travel Market, which equals Retail + Selected Services

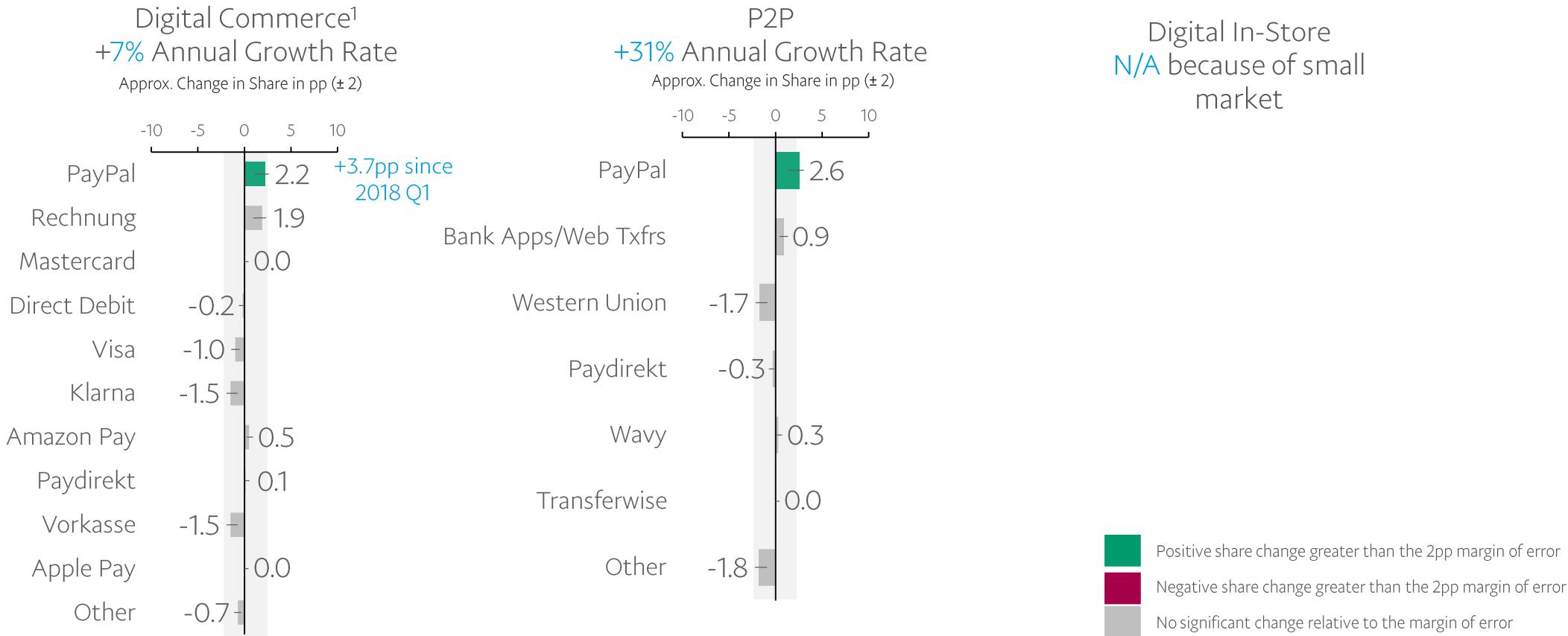
2 Banks includes Bank apps/website and Kwitt

Margin of Error: ±2 pp



# Estimated DE Market Share – Evolution<sup>1</sup> Since 2018 Q3

PayPal has grown in both Digital Commerce and P2P in Germany



<sup>1</sup> Based on re-aligned share estimates among brands common to both timeframes for a direct comparison.

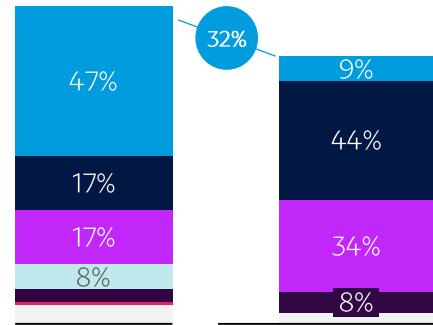
<sup>2</sup> Banks includes Bank apps/website and Kwitt

Margin of Error: ±2 pp



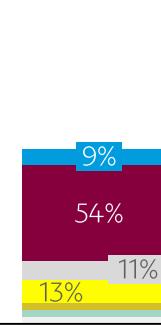
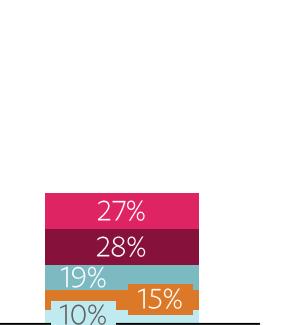
# Estimated AU Market Share – 2019 Q1 Results

Total Digital Payments: \$55B

Digital Commerce  
\$42BRetail<sup>1</sup>  
\$25B\*Travel  
\$17B

26%

PayPal

Digital P2P  
\$10BDigital In-Store  
\$3B

Other includes: Visa Checkout (1%/3%), Masterpass (1%/1%), Zip Money (1%/0%), Google Pay (0%/0%), Samsung Pay (0%/0%), Alipay (0%/0%), WeChat Pay (0%/0%)

Other P2P includes: OFX (2%), World Remit (0%), Alipay (0%), WeChat Pay (0%)

Other DIS includes: Zip Money (1%), WeChat Pay (1%), Alipay (1%)

- **Digital Commerce:** PayPal dominates the Retail segment of Digital Commerce with nearly a 50% share in Australia. Credit cards still control the vast majority of the Travel payment market.
- **Digital P2P:**
  - Banks dominate the market with over 50% share
  - The 2<sup>nd</sup> tier includes Paypal, Western Union and Osko, each with relatively similar share levels (11-13%).
- **Digital In-Store:**
  - Apple Pay and Banks Wallets lead the market with relatively similar shares.
  - The 2<sup>nd</sup> tier includes Samsung Pay, Google Pay and Afterpay, in descending order, each with shares in the range of ~15%.

\* The annual market growth rate assumption is somewhat lower than assumed in Q3 2018

1 Digital Commerce Ex-Travel Market, which equals Retail + Selected Services

2 Banks includes Bank apps/website and Beem It

3 Afterpay was not tracked for Digital In-Store in previous waves

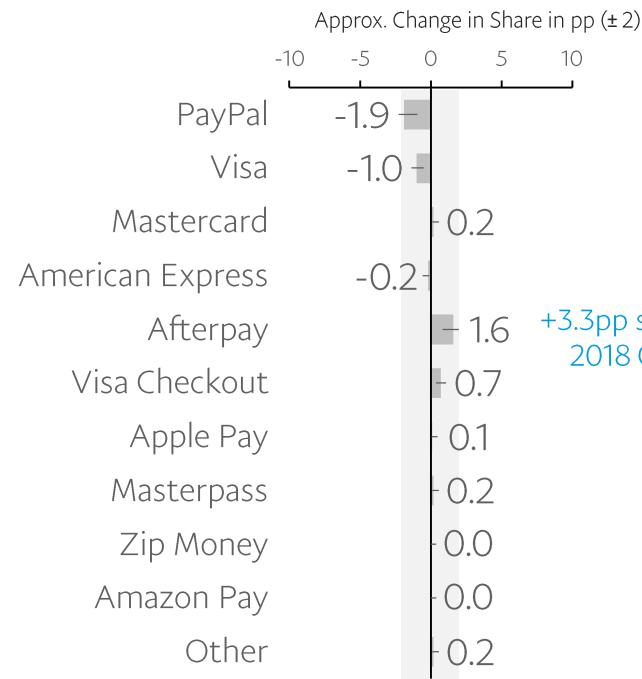
Margin of Error: ±2 pp



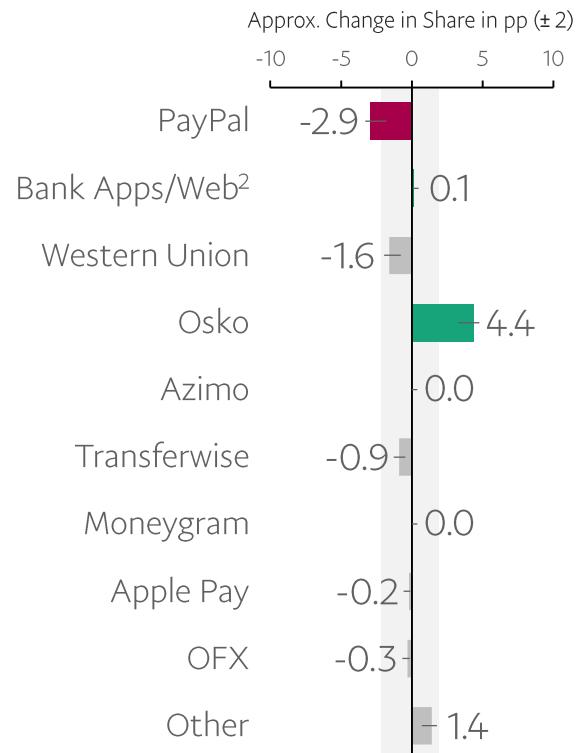
# Estimated AU Market Share – Evolution<sup>1</sup> Since 2018 Q3

AfterPay has grown 3.3pp in Digital Commerce since Q1 2018; Paypal declined in P2P while Osko continues to grow

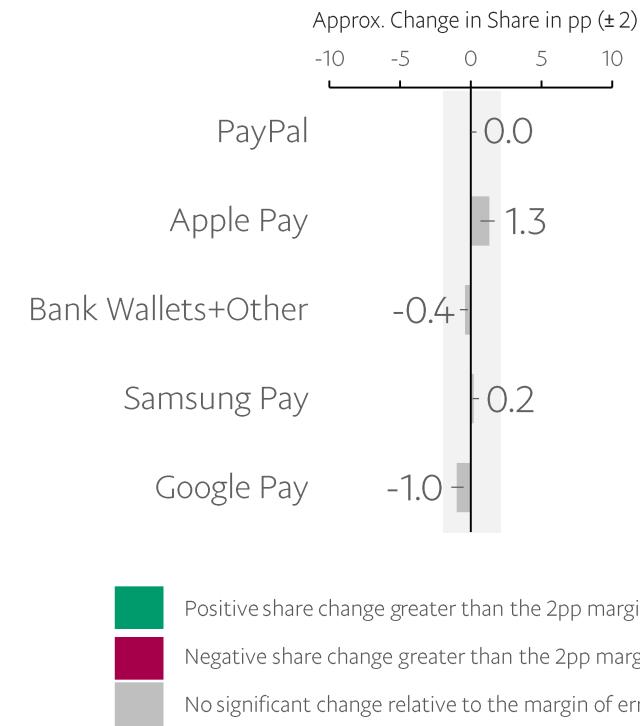
Digital Commerce<sup>1</sup>  
+12% Annual Growth Rate



P2P<sup>1</sup>  
+58% Annual Growth Rate



Digital In-Store<sup>1</sup>  
+52% Annual Growth Rate



<sup>1</sup> Based on re-aligned share estimates among brands common to both timeframes for a direct comparison.

<sup>2</sup> Banks includes Bank apps/website and Beem It

# Market Share Monitor

## Q1 2019

Core Markets Update

### Agenda

1. Market Overview
2. Strategic Insights
  1. Opportunities
  2. Threats
  3. User Profiles
3. Country Snapshots
  1. Core Markets
  2. Emerging Markets

# Executive Summary - MSM for Emerging Markets

## Key updates for Emerging markets since 1Q 2018:

### Digital Commerce:

- Market saw robust growth: 21% Y/Y for IN and MX; 16% Y/Y for BR and 8% Y/Y for JP (as of 1Q 2019)
- Notable share changes observed in India: BHIM (government led initiative) and PhonePe gained 3p.p. each; cash on delivery lost 5 p.p. in past year

### Digital P2P:

- Grew 93% Y/Y, primarily driven by India and Japan (>100% Y/Y)
- In India, BHIM gained share (+5p.p.), at the expense of traditional bank apps & Paytm (-4p.p. & -2p.p.) in past year
- In Japan, PayPal and Online banking saw erosion (-3p.p. and -7p.p.) due to gains for LINE Pay and local players (+4p.p. and +3p.p.) since 1Q 2018
- Note: PayPal has only enabled P2P-G&S (Goods & Services) transfers in Japan, while the P2P market growth was driven by F&F (Friends & Family) transfers, thereby causing drop in PayPal share

### Digital In-store:

- Grew 86% Y/Y in past year. While market still relatively small in Brazil and Mexico, local wallets are gaining share at the expense of bank apps
- Note: MSM excludes tap-n-pay transit payments from the scope due to disproportionate market size (e.g., ¥6 Trillion+ market in Japan). Hence growth in transit payments for players like Apple Pay & Suica is not reflected in market share

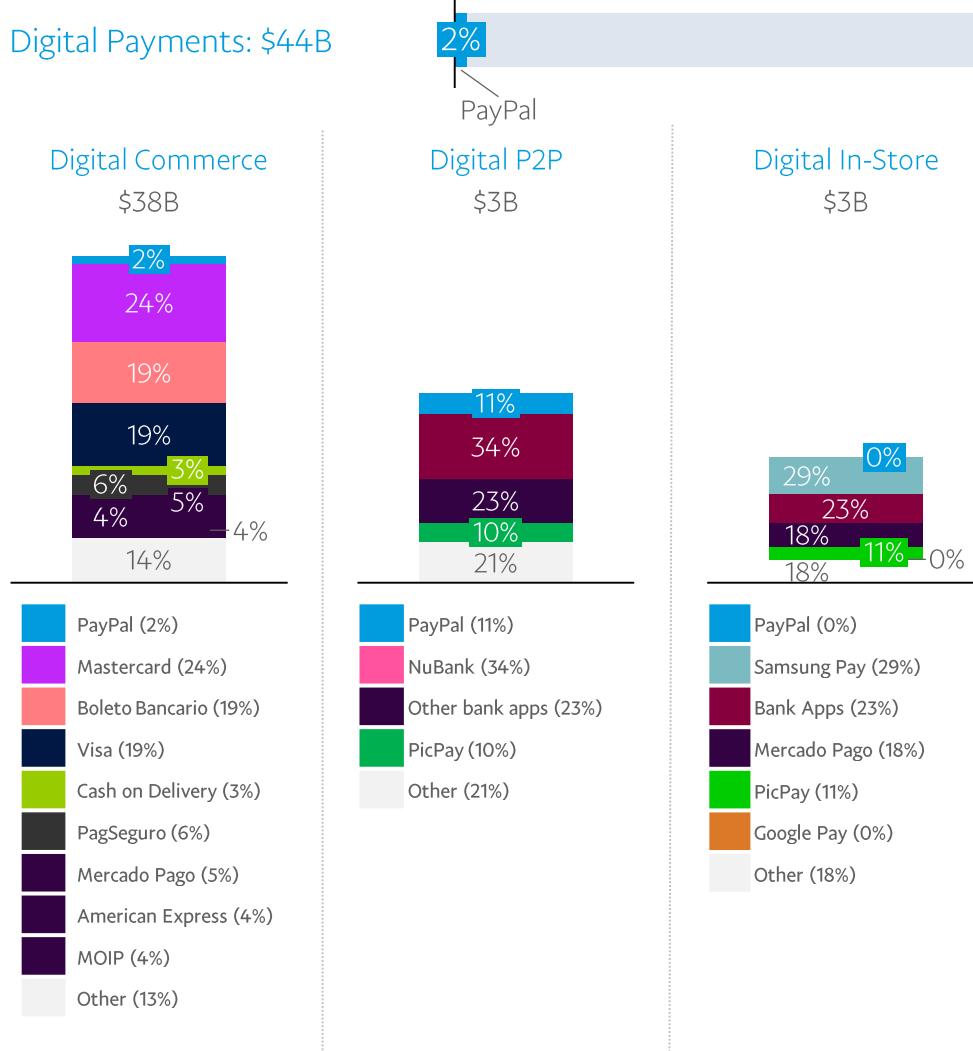
Margin of Error: ±2 pp



# Estimated BR Market Share – Q1 2019 Results

Market share remained stable. Digital In-Store grew rapidly, in which Mercado Pago & PicPay gained share

Total Digital Payments: \$44B



- **Digital Commerce:**

- Credit card payments are a predominant portion of the market
- Boleto Bancario is a unique payment system which involves online purchase invoices which are printed out and then paid off in cash or bank transfer from one of 40k physical locations (ATMs, supermarkets etc.). It is popular as it caters to a large unbanked population
- PagSeguro and MOIP are the largest payment service providers for eCommerce
- Mercado Pago is a payment service by large online retailer, Mercado Libre

- **Digital P2P:**

- Banks are most popular for P2P transfers
- PayPal and PicPay have relevant market share as well
- PicPay, RecargaPay and Mercado Pago have apps that offer P2P payments
- Itau TokPag is a P2P payments app from Itau Bank

- **Digital In-store:**

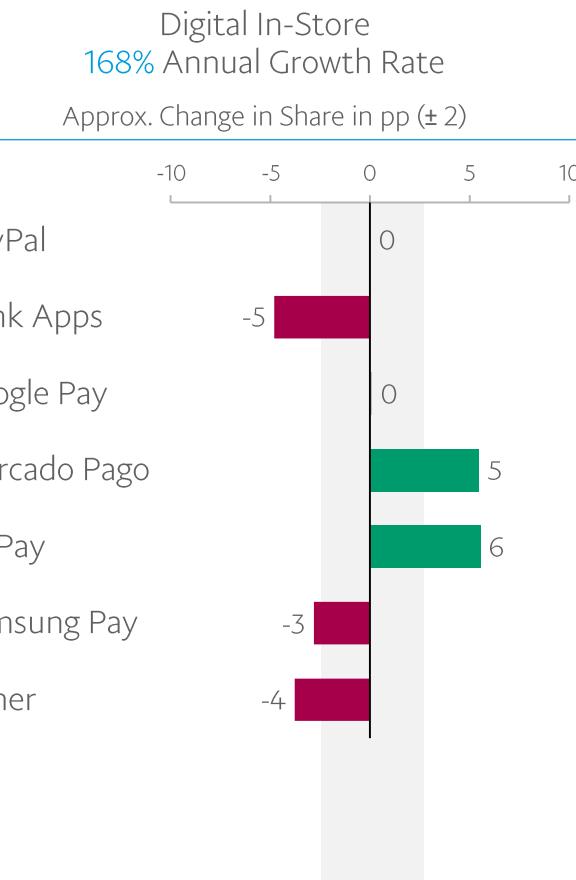
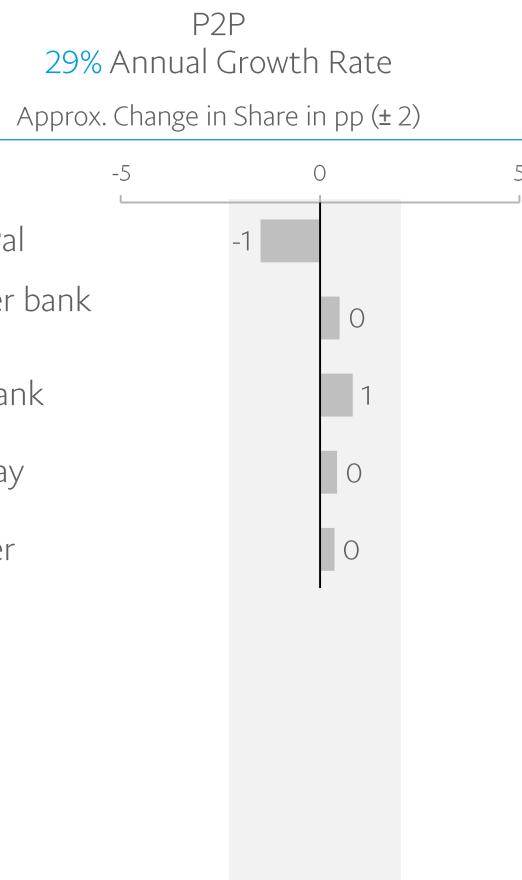
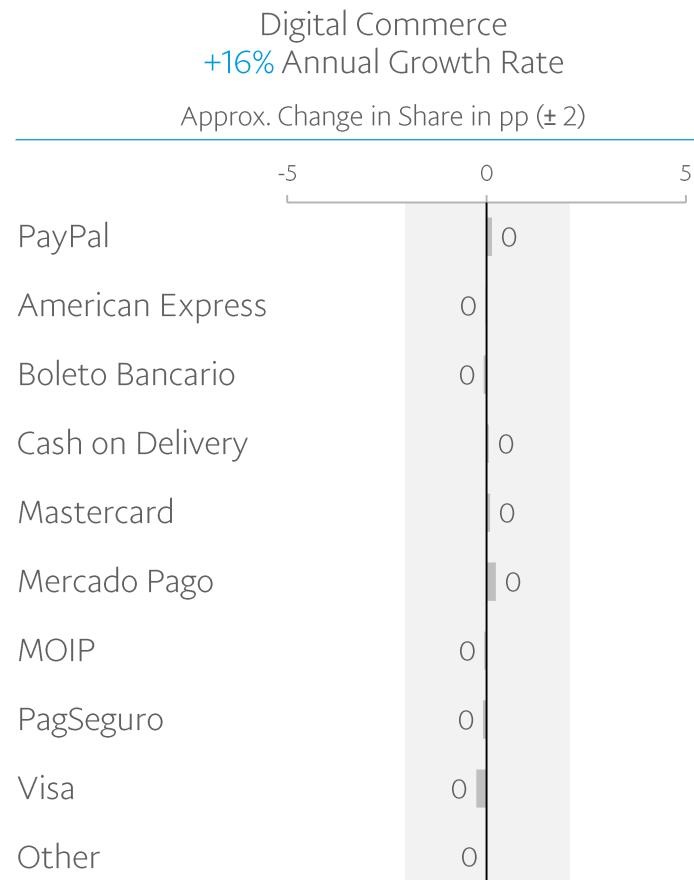
- Very small presence, but Samsung Pay is the market leader



# Estimated BR Market Share – Evolution<sup>1</sup> Since Q1 2018

Margin of Error: ±2 pp

- █ Positive share change greater than the 2pp margin of error
- █ Negative share change greater than the 2pp margin of error
- No significant change relative to the margin of error



<sup>1</sup> Based on re-aligned share estimates among brands common to both timeframes for a direct comparison.

<sup>2</sup> Digital Commerce Ex-Travel Market, which equals Retail + Selected Services

<sup>3</sup> Retail and Travel were recalculated for February 2018 with Competitive Intelligence included for a more direct comparison of change.

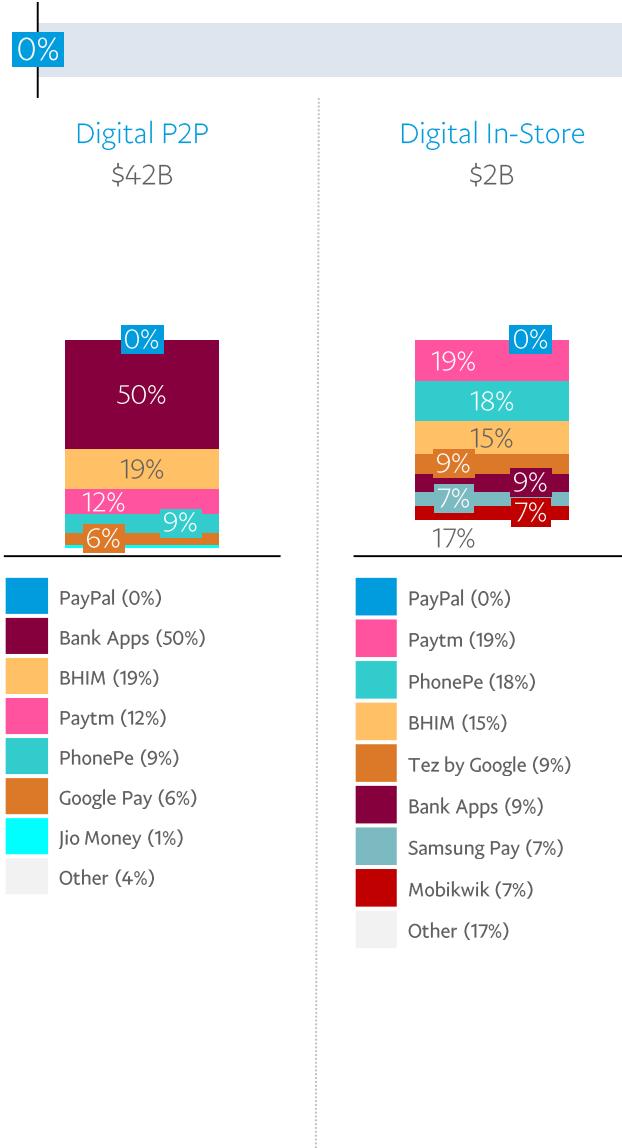
\* Larger brands are growing faster than smaller, esoteric players.



# Estimated IN Market Share – Q1 2019 Results

Paytm remains largest player in Digital Commerce; PhonePe & BHIM gained market share

Total Digital Payments: \$98B



- **Digital Commerce:**

- Indian government implemented UPI (United Payments Interface) in 2016, which is an open standard protocol to facilitate interbank transactions and has resulted in the development of number payment services
- Paytm is the largest market player and prominent existence across all three channels; most well-funded, Alibaba is largest shareholder
- PhonePe: e-commerce player, owned by Flipkart (top e-commerce retailer)
- Rupay is domestic debit card conceived by National Payments Corporation of India (NCPI), growing rapidly;

- **Digital P2P**

- BHIM is a cashless money transfer app by NCPI
- PhonePe: Only included P2P volume and excluded bill payment, which is a large portion of its volume
- JioMoney, Google Pay are other P2P money transfer apps
- Google Pay was rebranded from Tez by Google since previous wave

- **Mobile W-IS:**

- Paytm is the largest player, followed by PhonePe



# Estimated IN Market Share – Evolution<sup>1</sup> Since Q1 2018

Margin of Error: ±2 pp

- █ Positive share change greater than the 2pp margin of error
- █ Negative share change greater than the 2pp margin of error
- No significant change relative to the margin of error

Digital Commerce  
+21% Annual Growth Rate

Approx. Change in Share in pp (± 2)



PayPal	0
Airtel Money	1
Amazon Pay	1
American Express	-1
BHIM	3
Cash on Delivery	-5
Freecharge	0
Google Pay	0
Jio Money	0
MasterCard	-2
MasterPass	0
Mobikwik	0
Paytm	2
PhonePe	3
RuPay	0
Visa	-2
Visa Checkout	0
Other	1

P2P  
+100% Annual Growth Rate

Approx. Change in Share in pp (± 2)



PayPal	0
Bank Apps	-4
BHIM	5
Google Pay	0
Jio Money	0
Paytm	-2
PhonePe	2
Other	0

Digital In-Store  
+117% Annual Growth Rate

Approx. Change in Share in pp (± 2)



PayPal	0
Bank Apps	0
BHIM	2
Tez by Google	-1
Mobikwik	0
Paytm	-2
PhonePe	0
Samsung Pay	1
Other	0

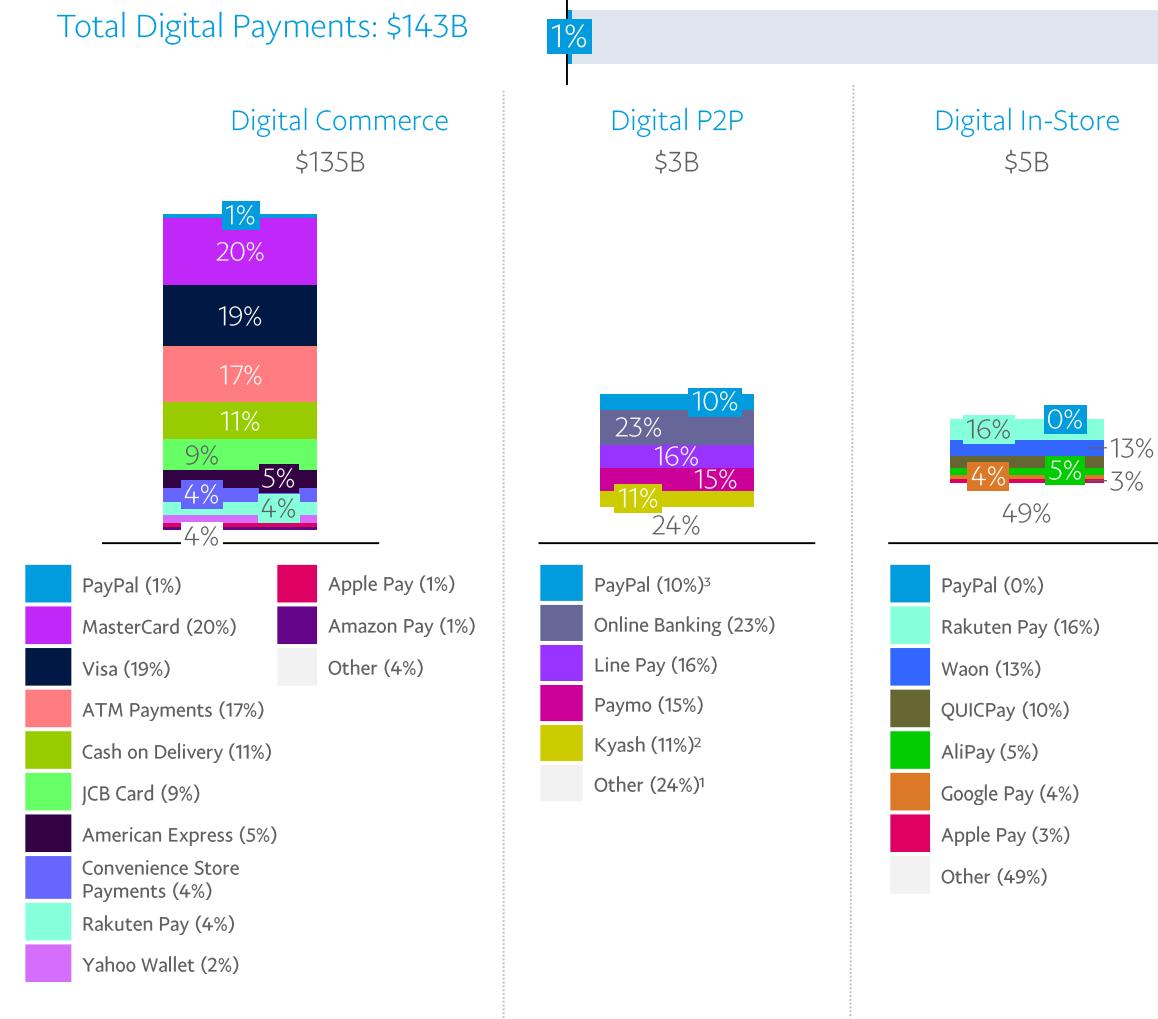
<sup>1</sup> Based on re-aligned share estimates among brands common to both timeframes for a direct comparison.

<sup>2</sup> Digital Commerce Ex-Travel Market, which equals Retail + Selected Services

# Estimated JP Market Share – Q1 2019 Results

In P2P, online banking falls in share; LINE Pay and other smaller<sup>1</sup> wallets gained share

Total Digital Payments: \$143B



1. Other includes Yahoo Money, Tap, Pring, YoruPay and other smaller wallets
2. Kyash estimate in Q1 2018 retroactively revised from 8% to 11%, hence no marginal change in market share
3. PayPal only offers G&S-P2P in Japan, whereas market growth is primarily driven by F&F-P2P (which is enabled on players like LINE pay, Kyash etc.)

- **Digital Commerce:**

- Cash on delivery and convenience store payments (buy online, pay in-store) are a large portion of the digital commerce payments market (17%)

- Amazon and Rakuten are largest eCommerce markets

- Online credit card payments capture around 49% of the market

- **Digital P2P:**

- Not very large, as cash is the most preferred medium of exchange

- Sumitomo and Mitsubishi are largest banks for online transfer

- P2P Market leaders are:

- LINE Pay – payment service built into popular messaging app, LINE; Type in passcode and pay
- Kyash – P2P transfer app; also a Visa virtual credit card issuer that allows merchant payments.
- Paymo – splitting bills with friends/family; can be used via app or online website

- **Digital In-Store:**

- In-store mobile wallet space is very fragmented across companies (typically transportation) that issue prepaid electronic money cards. We only include volume attributed to the usage of their associated mobile apps at POS, and exclude the larger volume electronic card payments

- Apple Pay is popular but primarily in the tap-and-pay transit market which is outside the scope of MSM

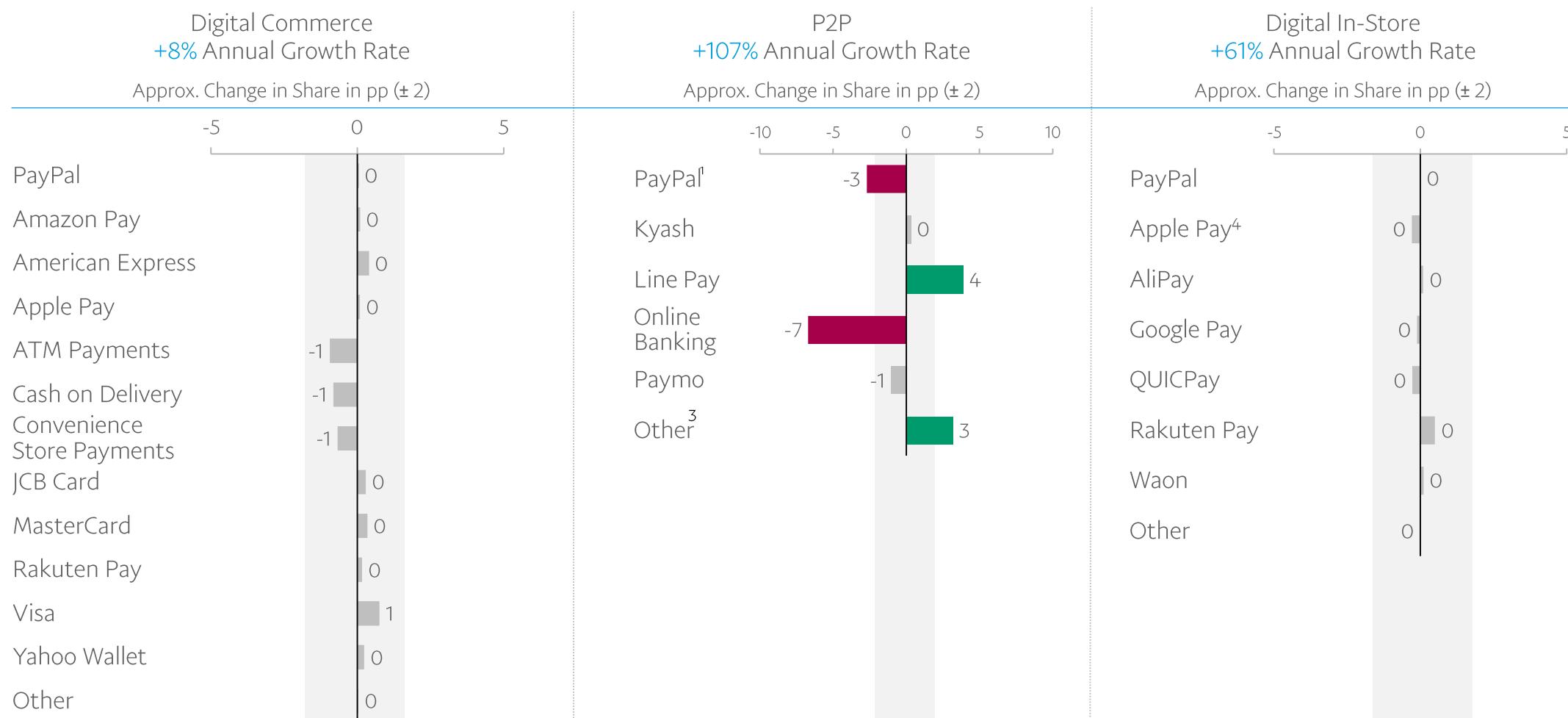
- Waon, QUICPay and Suica lead the space, but Japanese customers typically have multiple cards and carefully choose their usage based on benefits from loyalty reward programs.

Margin of Error: ±2 pp

- █ Positive share change greater than the 2pp margin of error
- █ Negative share change greater than the 2pp margin of error
- █ No significant change relative to the margin of error

# Estimated JP Market Share – Evolution<sup>1</sup> Since Q1 2018

44



1. PayPal lost 3p.p. in share because PayPal only offers G&S-P2P in Japan, whereas market growth is primarily driven by F&F-P2P (which is enabled on players like LINE pay, Kyash etc.)

2. Digital Commerce Ex-Travel Market, which equals Retail + Selected Services

3. Other includes Yahoo Money, Tap, Pring and YouPay

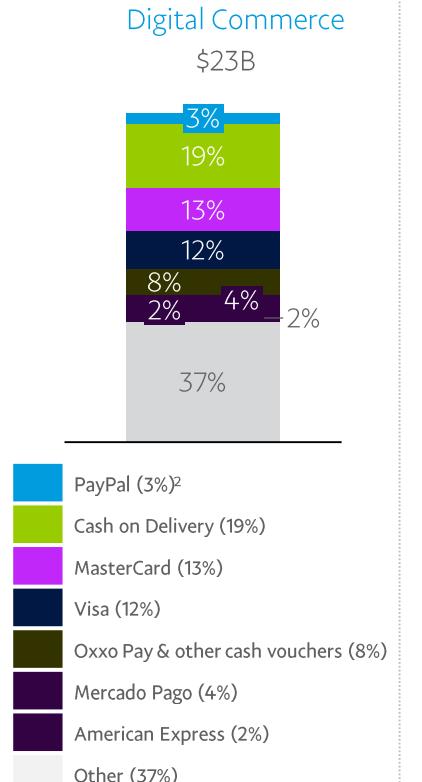
4. While Apple Pay reports significant growth due to JP transit tap-n-pay, MSM reported value excludes transit payments for in-store, given that is out of scope (almost 6 trillion+ Yen total market). We only include retail (ex-transit) in-store purchases



# Estimated MX Market Share – Q1 2019 Results

Market share remained stable. Digital In-Store grew rapidly, in which Mercado Pago & Samsung Pay gained share

Total Digital Payments: \$25B



Digital P2P

\$0.6B<sup>1</sup>

29%

27%

13%

13%

6%

6%

1%

Digital In-Store

\$0.7B

0%

71%

16%

2%

11%

- **Digital Commerce:**

- [Oxxo Pay](#) is another invoicing payment service which issues invoices that can be paid off at physical locations with cash
- [Credit cards](#) are largest portion of online payments
- [Mercado Pago](#) is a payment service by large online retailer, [Mercado Livre](#)
- [Payza](#) is another payment service provider for online shopping and can connect to Oxxo for source of funds
- [Paysafe card](#) is a physical card that can be bought. Only included online purchases using the card number

- **Digital P2P:**

- [Significant P2P players](#) are PayPal, Bank Apps ([Bancomer](#), [Banamex](#)) and [Western Union](#)
- Other smaller bank apps are [Santander](#), [Banorte](#), [HSBC](#)
- [PayIt](#), [Swap](#), [Mercado Pago](#) are standard P2P payment apps
- [Moneypool](#) allows you to create pools with your friends to collectively pay for g&s

- **Digital In-store** market is very small and dominated by the banks

1. In Q1 2018, we stated the P2P size as \$1B (but was rounded up from \$0.5B). The market therefore grew from \$0.5B to \$0.6B

2. PayPal Digital Commerce share in Q1 2018 was stated as 4%, but we are now restating it as 3% upon including Cash on Delivery in overall market. Hence PP market share remains unchanged at 3%

Margin of Error: ±2 pp



# Estimated MX Market Share – Evolution<sup>1</sup> Since Q1 2018

- Positive share change greater than the 2pp margin of error
- Negative share change greater than the 2pp margin of error
- No significant change relative to the margin of error

Digital Commerce  
+21% Annual Growth Rate

Approx. Change in Share in pp (± 2)



PayPal	0
American Express	0
Cash on Delivery	0
MasterCard	0
Mercado Pago	0
Oxxo Pay	0
Payza	0
Visa	0
Other	0

P2P  
+36% Annual Growth Rate

Approx. Change in Share in pp (± 2)



PayPal	-1
Bancomer Movil	0
BBVA Send	0
Mercado Pago	0
Moneygram	0
Other Bank Apps	1
Transfer Banamex	0
Western Union	0
Other	0

Digital In-Store  
+47% Annual Growth Rate

Approx. Change in Share in pp (± 2)



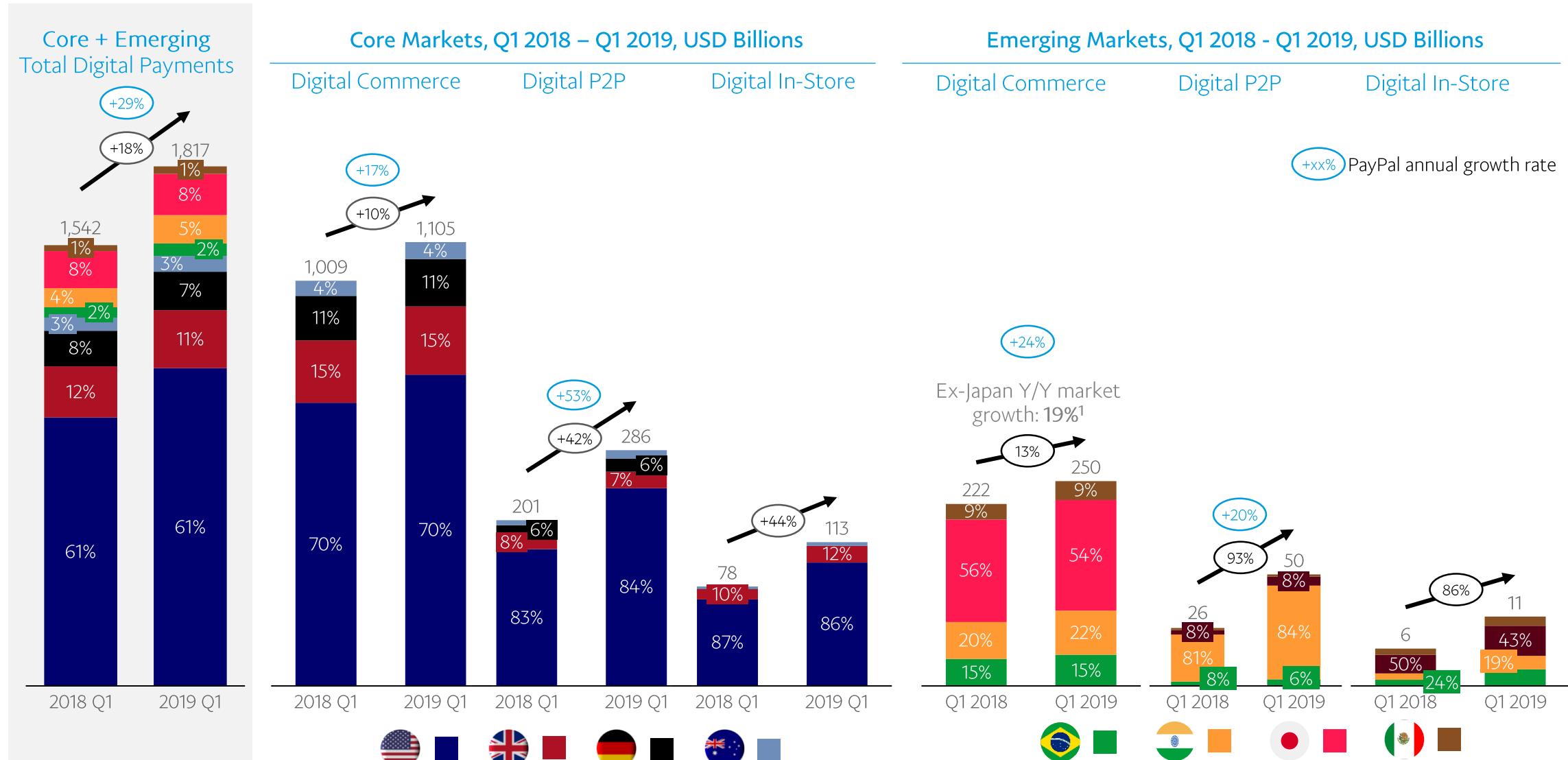
PayPal	0
Bank Apps	-5
Mercado Pago	3
Samsung Pay	2
Other	0

<sup>1</sup> Based on re-aligned share estimates among brands common to both timeframes for a direct comparison.

<sup>2</sup> Digital Commerce Ex-Travel Market, which equals Retail + Selected Services

<sup>3</sup> Retail and Travel were recalculated for February 2018 with Competitive Intelligence included for a more direct comparison of change.

# In Core, Digital Commerce, P2P & In-store grew Y/Y at 10%, 42% & 44% respectively

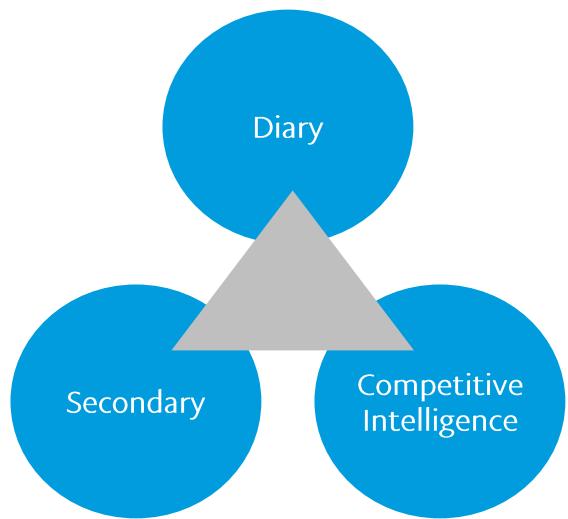


1. Japan grew at 8% Y/Y. Given large market size, this brings down aggregated Emerging markets growth rate from 19% to 13%

# Data Collection Methodology

Data triangulated from primary, secondary and competitive intelligence research

## Triangulated Data



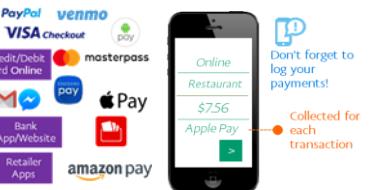
1. In-take survey and diary, ensure:
  - Consumer-centric overview of digital payments landscape
  - Spur-of-the-moment recall for transactions
2. Competitive Intelligence & Secondary research ensure market reality

## Bottom-up Core Markets

1

### Survey & Diary

- In-take survey collects **payment method penetration** data from large sample size to **increase precision**



- In the moment on-recall** based diary<sup>2</sup> asks respondents to log amount, payment method, and type of transaction each time they make a purchase

## Top-down All Markets

2

### Competitive Intelligence

- Over 200 Interviews with:
  - Local census and statistics bureaus
  - Subject matter experts
  - Current and recently separated (within the past 12 months) employees of target companies including: vice presidents, directors, managers, and analysts of marketing, digital payments, business development, and mobile products

3

### Secondary reports

- Recompilation of secondary reports enables triangulation:
  - Census
  - BRC & IMRG
  - Forrester
  - Euromonitor
  - Statista
  - App Annie



# Field & Data Specifications

## Field Period

Jan-Feb 2019

23 24 25 26 27

Research Fielding

30 31 1 2 3

Research Fielding

6 7 8 9 10

Research Fielding

13 14 15 16 17

Research Fielding

20 21 22 23 24

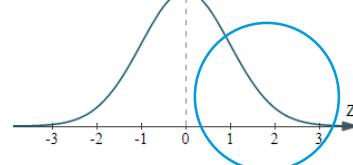
Research Fielding

## Sample



Group	In-Take <sup>1</sup>	Diary <sup>2</sup>						
General Market	3764	680	3885	714	4851	572	3583	619
P2P Oversample	2578	167	2683	144	3474	124	1617	137
Wallet In-store Oversample	1732	85	1241	76	1469	60	901	55
Affluent Oversample	923	90	960	79	777	71	441	48

Over 19,000 completed diary transactions were logged and analyzed.



Outliers and suspected "cheaters" were removed from the data to ensure validity and predictability.

Two to three standard deviations from the mean (~2%) of outliers were removed as well as those with suspicious entries (e.g. all entries were 9999).

	Digital Commerce	P2P	Wallet In-Store
In-take Sample size	3367	1482	1025
Margin of Error	±1.4%	±2.1%	±2.6%
In-take Sample size	3616	1682	800
Margin of Error	±1.4%	±2.0%	±2.9%
In-take Sample size	4495	2068	902
Margin of Error	±1.2%	±1.8%	±2.7%
In-take Sample size	3182	1358	825
Margin of Error	±1.5%	±2.2%	±2.9%

<sup>1</sup> Geographically dispersed and census balanced to ensure a representative respondent population.

<sup>2</sup> To be considered a "diary complete" respondents must enter a transaction or state they had no transactions each day and complete the out-take questions on the last day.

# Appendix – Calculation of Apple Pay Global TPV

Dimension	Source	1Q 2017	2Q 2017	3Q 2017	4Q 2017	1Q 2018	2Q 2018	3Q 2018	4Q 2018	FY 2019
AP Y/Y Txns growth	From earnings transcripts			3x						2x
AP Global Txns (B)	Implied using reported growth	0.2	0.4	0.7	0.9	1.1	1.3	1.6	1.8	10.0
PP Global Txns (B)	Cross-property actuals from Essbase	1.77	1.82	1.94	2.24	2.21	2.33	2.46	2.87	12.90
AP / PP Txn Index			0.24	0.34	0.40	0.51	0.56	0.65	0.63	0.78
PP AOV (MSM Core)	From MSM - across DC, P2P, DIS	\$41.90	\$41.90	\$41.90	\$41.90	\$41.90	\$41.70	\$41.70	\$42.40	\$42.40
AP AOV (MSM Core)	Core markets	\$30.70	\$30.70	\$30.70	\$30.70	\$30.70	\$27.30	\$27.30	\$25.90	\$25.90
AP / PP Indexed AOV (core)		0.73	0.73	0.73	0.73	0.73	0.69	0.65	0.63	0.61
PP AOV actuals		\$57.49	\$59.47	\$58.50	\$58.25	\$58.09	\$58.80	\$57.61	\$56.97	56.96639
AP AOV rescaled	Rescaled to match PP actuals	\$42.12	\$43.58	\$42.86	\$42.68	\$42.56	\$40.79	\$37.72	\$36.05	36.0462
AP TPV (USD B)	Multiplying reported txns with AOV	\$8.42	\$14.53	\$26.43	\$38.41	\$40.43	\$40.79	\$52.81	\$64.88	\$360.46
• % In-store		NA	NA	NA	NA	75%	33%	83%	33%	83%
• % Mobile Web		NA	NA	NA	NA	10%	33%	5%	33%	8%
• % Mobile App		NA	NA	NA	NA	15%	33%	13%	33%	9%
PP TPV (USD B)	Cross-property data from Essbase	\$101.82	\$108.05	\$113.55	\$130.47	\$128.60	\$136.82	\$141.88	\$163.31	570.6172
Ratio of AP/PP TPV		0.08	0.13	0.23	0.29	0.31	0.30	0.37	0.40	0.63
AP Txn counts (B)	Calculated above	0.2	0.4	0.7	0.9	1.1	1.3	1.6	1.8	10.0
• % In-store		NA	NA	NA	NA	84%	84%	88%	88%	87%
• % Mobile Web		NA	NA	NA	NA	5%	5%	3%	3%	5%
• % Mobile App		NA	NA	NA	NA	10%	10%	9%	9%	8%

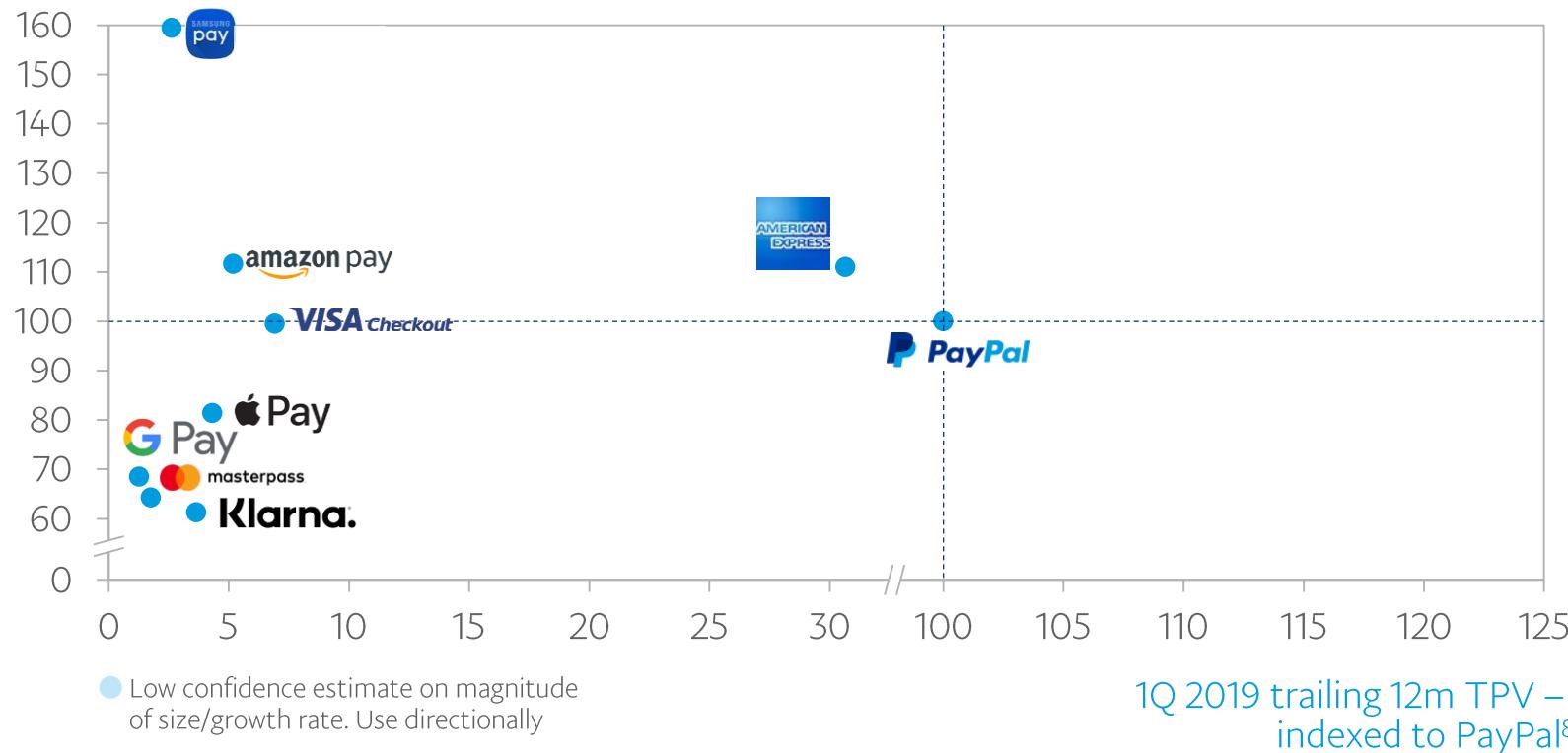
# Digital Commerce Summary: Tracking Momentum on Competitor Battlefield



Q1 2019 Market Size Estimate – \$172B

Market Y/Y Growth – 9.41%

Y/Y Momentum (TPV Growth indexed to PayPal<sup>6</sup>)



1. Source: Manager, Merchant Partnerships

2. Source: Senior Director

3. Source: UK Manager

4. Source: Partner Manager

5. Source: Programme Manager

6. Source: UK Manager

7. Source: Digital Senior Manager  
8. (Competitor Value) / (PayPal Value). PayPal TPV is consumer + guest upgradeable sent; across MS, WPS, PP4P, Adaptive (excludes any unbranded)



2019: Amazon/WorldPay partnership to allow access for Amazon Pay as an option for 40 billion global transactions.<sup>1</sup>



Decreased friction in signing up for and using Apple Pay in newer generation iPhone (8 & X) models.<sup>2</sup>



Consolidated Android Pay, Google Wallet, and Google Pay into G Pay.<sup>3</sup>



Dec 2018: Joined Shopify Plus Technology Partner Program, allowing merchants access to APIs for increased customization. 2019: Expects to add more brands to "Pay Later" roster.<sup>4</sup>



Customers confused with the Masterpass offering, unsure what Masterpass provides that their regular Mastercard does not. Expanding rollout of Qkr!, a service that permits pre-ordering and table-side payments at restaurants.<sup>5</sup>



Attempting to drive usage through rewards.<sup>6</sup>



Suffering from marketplace confusion and lack of promotion, though registered user growth continues, hit one million in the UK at beginning of 2018.<sup>7</sup>

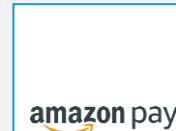
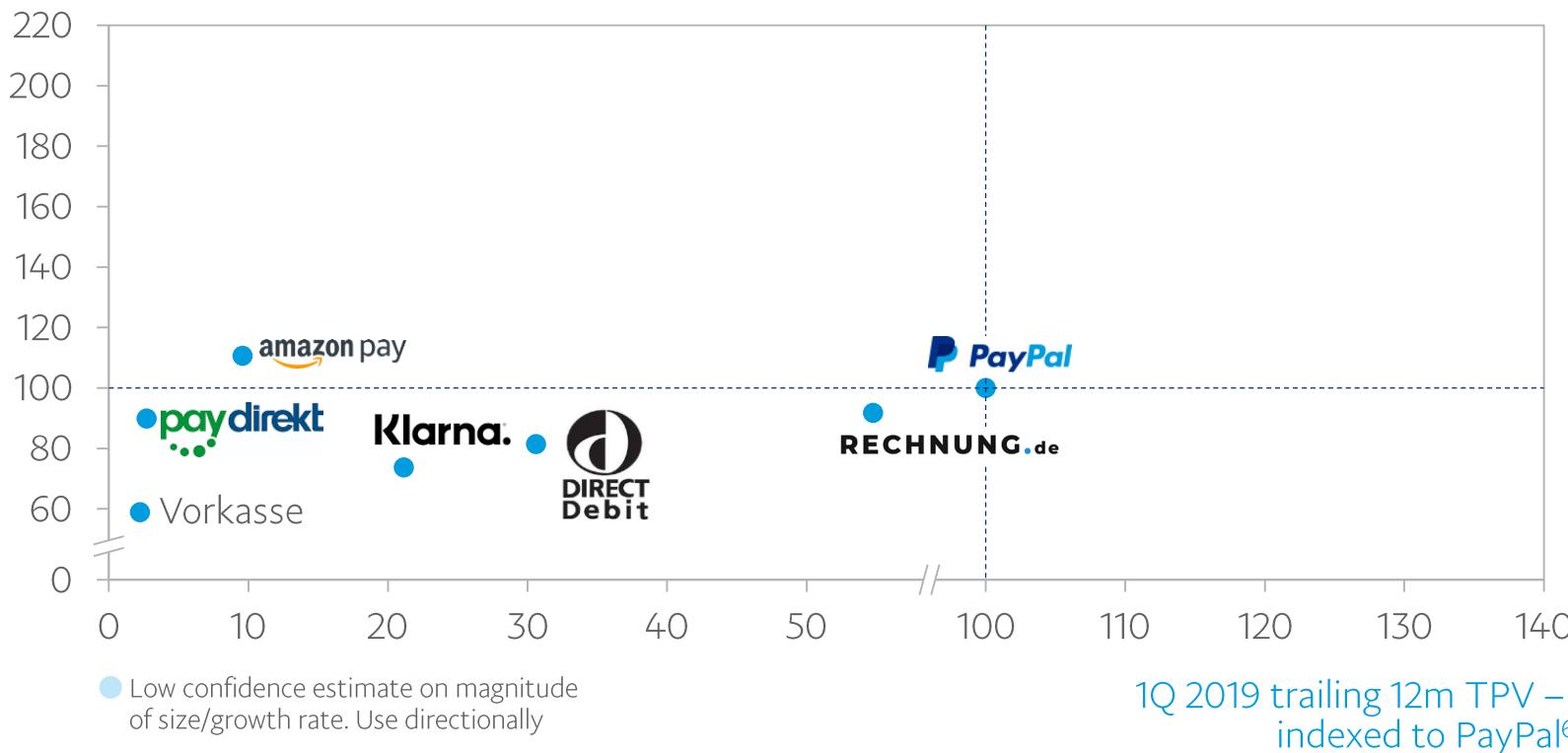
# Digital Commerce Summary: Tracking Momentum on Competitor Battlefield



Q1 2019 Market Size Estimate – \$128B

Market Y/Y Growth – 6.62%

Y/Y Momentum (TPV Growth indexed to PayPal<sup>6</sup>)



Companies have a growing concern with accepting Amazon Pay, since a competitor would have access to a subset of their sales data.<sup>2018</sup>: Developed travel partnerships with ~20 travel and hotel sites, but very little traction thus far.<sup>2019</sup>: Amazon/WorldPay partnership to allow access for Amazon Pay as an option for 40 billion global transactions.<sup>1</sup>



Older German customers heavily against the idea of debt; this leads to increased usage of traditional methods. As customers age, companies such as Mastercard, Visa, and PayPal will see increased opportunity in the market<sup>2</sup>



Early 2018 integrated into Shopify. Dec 2018: Joined Shopify Plus Technology Partner Program, allowing merchants access to APIs for increased customization<sup>3</sup>



Limited as most stores only accept one item out on invoice at a time. Will not ship next order until current invoice is paid. As customers age, companies such as Mastercard, Visa, and PayPal will see increased opportunity in the market<sup>4</sup>



Associated heavily with fraudulent companies.<sup>5</sup>

1. Source: Manager, Amazon Pay Key Account & Business Development
2. Source: Relationship Manager, Merchant Acceptance
3. Source: Specialist, Digital Solutions
4. Source: Financial Analyst

5. Analyst
6.  $\frac{\text{Competitor Value}}{\text{PayPal Value}}$ . PayPal TPV is consumer + guest upgradeable sent; across MS, WPS, PP4P, Adaptive (excludes any unbranded)

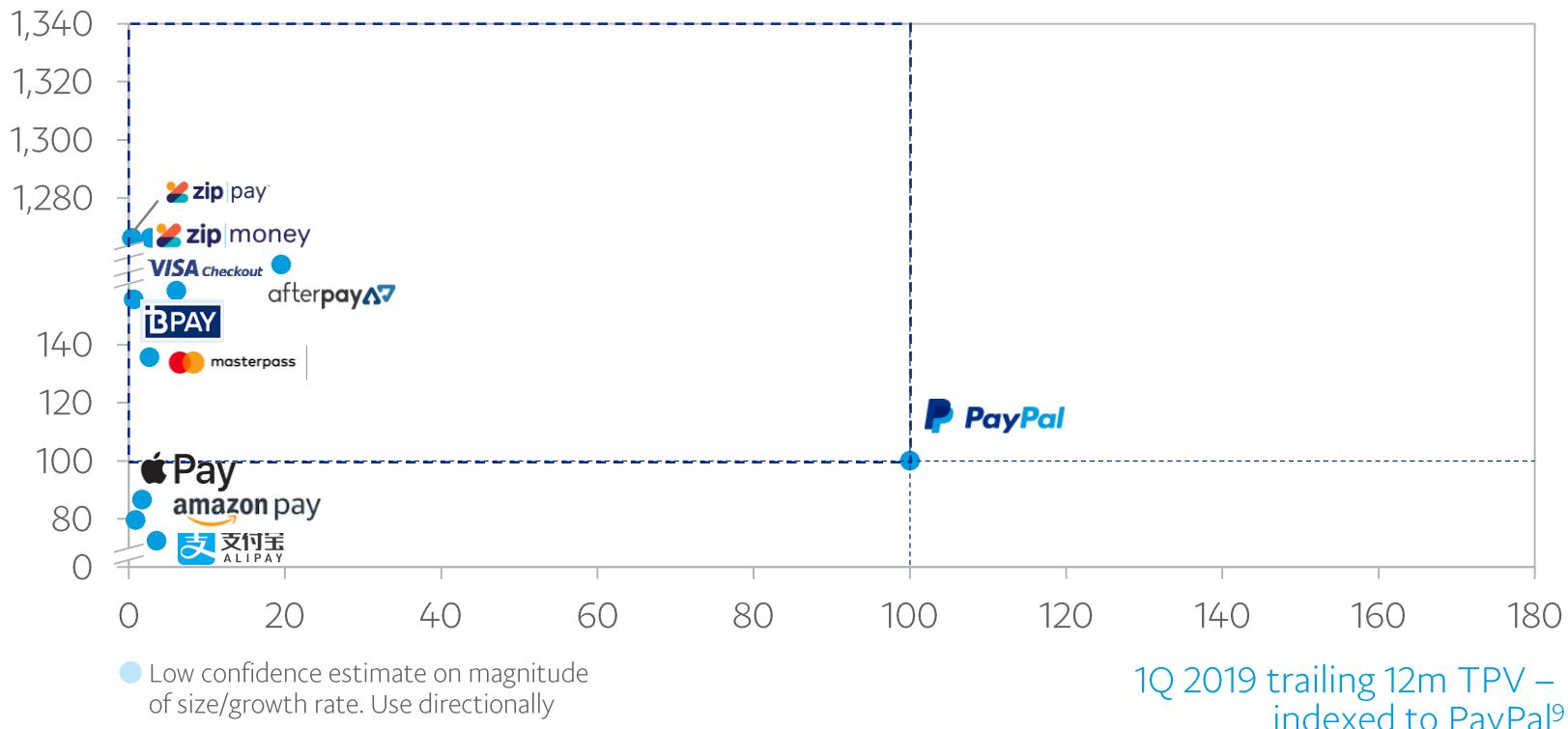
# Digital Commerce Summary: Tracking Momentum on Competitor Battlefield



Q1 2019 Market Size Estimate – \$44B

Market Y/Y Growth – 11.97%

Y/Y Momentum (TPV Growth indexed to PayPal<sup>6</sup>)



1. Source: Retail Growth Manager
2. Source: Country Manager
3. Source: Senior Product Manager Digital Payments
4. Source: Director, Payments & eCommerce
5. Source: Regional Director, Digital Payments
6. Source: Analyst, Digital Markets

7. Source: Manager, Product
8. Source: Manager, Product
9.  $(\text{Competitor Value}) / (\text{PayPal Value})$ . PayPal TPV is consumer + guest upgradeable seat; across MS, WPS, PP4P, Adaptive (excludes any unbranded)



Large push into the travel market in 2018, especially with weekend vacation packages.<sup>1</sup>



Working with AUS Tourism Dept. to pilot app focused on promoting major tourist destinations and paying through Alipay.<sup>2</sup>



Companies are have a growing concern with accepting Amazon Pay, since a competitor would have access to a subset of their sales data. 2019: Amazon/WorldPay partnership to allow access for Amazon Pay as an option for 40 billion global transactions.<sup>3</sup>



Aiming to convert users through in-store, and then transition to digital commerce.<sup>4</sup>



"Consumers are confused by how offering differs from traditional cards and eligibility requirements. Supporting Secure Remote Commerce will standardize checkout tokenization and smooth out online checkouts."<sup>5</sup>



Supporting Secure Remote Commerce to standardize checkout tokenization and smooth out online checkouts.<sup>6</sup>



AU customers are strongly supporting buying and paying over 6 monthly payments.<sup>7</sup>



AU customers are strongly supporting buying and paying over 6 monthly payments.<sup>8</sup>

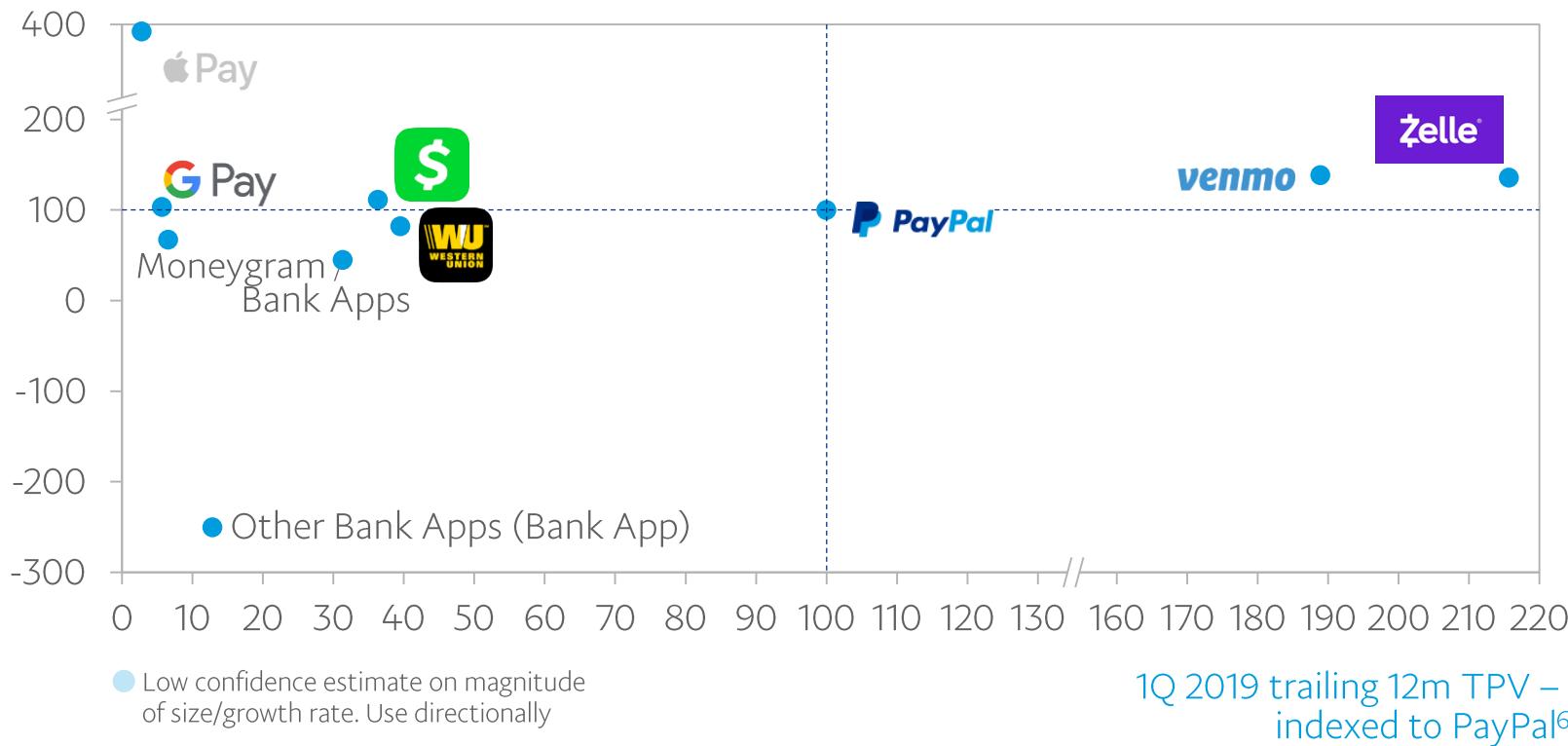
# P2P Summary: Tracking Momentum on Competitor Battlefield



Q1 2019 Market Size Estimate – \$241B

Market Y/Y Growth – 54.12%

Y/Y Momentum (TPV Growth indexed to PayPal<sup>6</sup>)



1. Source: Manager, E-Commerce
2. Source: Financial Manager
3. Source Senior Process Analyst
4. Source: Director, Partnerships

5. Sources Product Manager
6. (Competitor Value) / (PayPal Value). PayPal TPV is consumer + guest upgradeable sent; across P2P G&S, P2P F&F, Invoicing



New iMessage UI design decreases friction surrounding Apple Pay.<sup>1</sup>



Strong in the Southeast, with a focus on the unbanked and immigrants. Aggressive market campaigns include Cash Boosts, Instagram promos, event sponsorships (Coachella). End goal is for customers to use the Square App in lieu of having a bank account.<sup>2</sup>



Focusing on decreasing friction on money transfers through the mobile app (~70% of online transfers are mobile).<sup>3</sup>



Strategy to have everyone using Zelle: "We don't want most people to have Zelle, we want EVERYONE to have Zelle."<sup>4</sup>

"Soon we hope we can eliminate that question, do you need money I know you have Zelle I'll send it that way."<sup>5</sup>

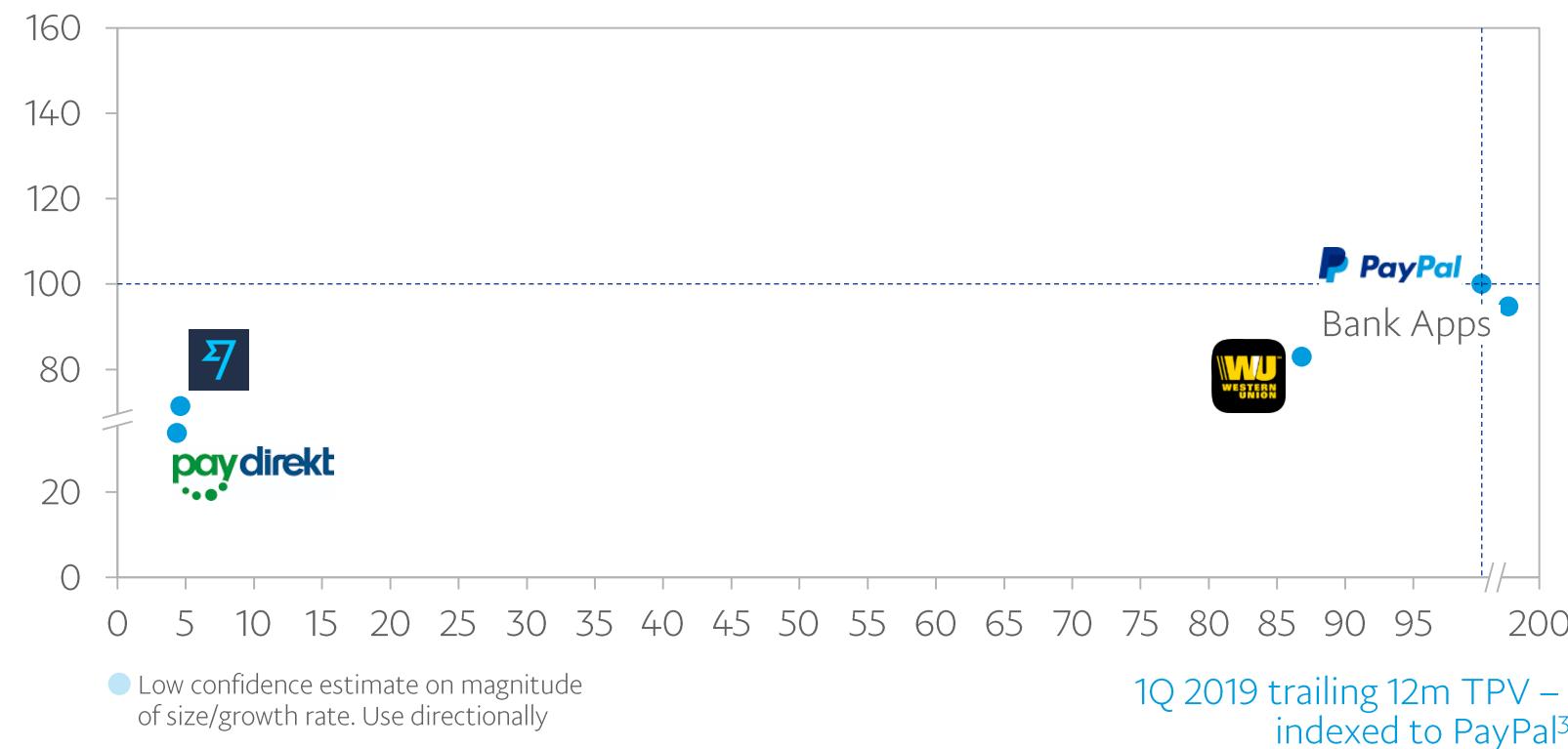
# P2P Summary: Tracking Momentum on Competitor Battlefield



Q1 2019 Market Size Estimate – \$18B

Market Y/Y Growth – 30.53%

Y/Y Momentum (TPV Growth indexed to PayPal<sup>⑥</sup>)



Recently launched “Borderless Account” offering.<sup>1</sup>



Growth driven by converting traditional users to Western Union Digital.<sup>2</sup>

1. Source: Manager, Payments Processing

2. Source: Senior Growth Manager

3. (Competitor Value) / (PayPal Value). PayPal TPV is consumer + guest upgradeable sent; across P2P G&S, P2P F&F, Invoicing

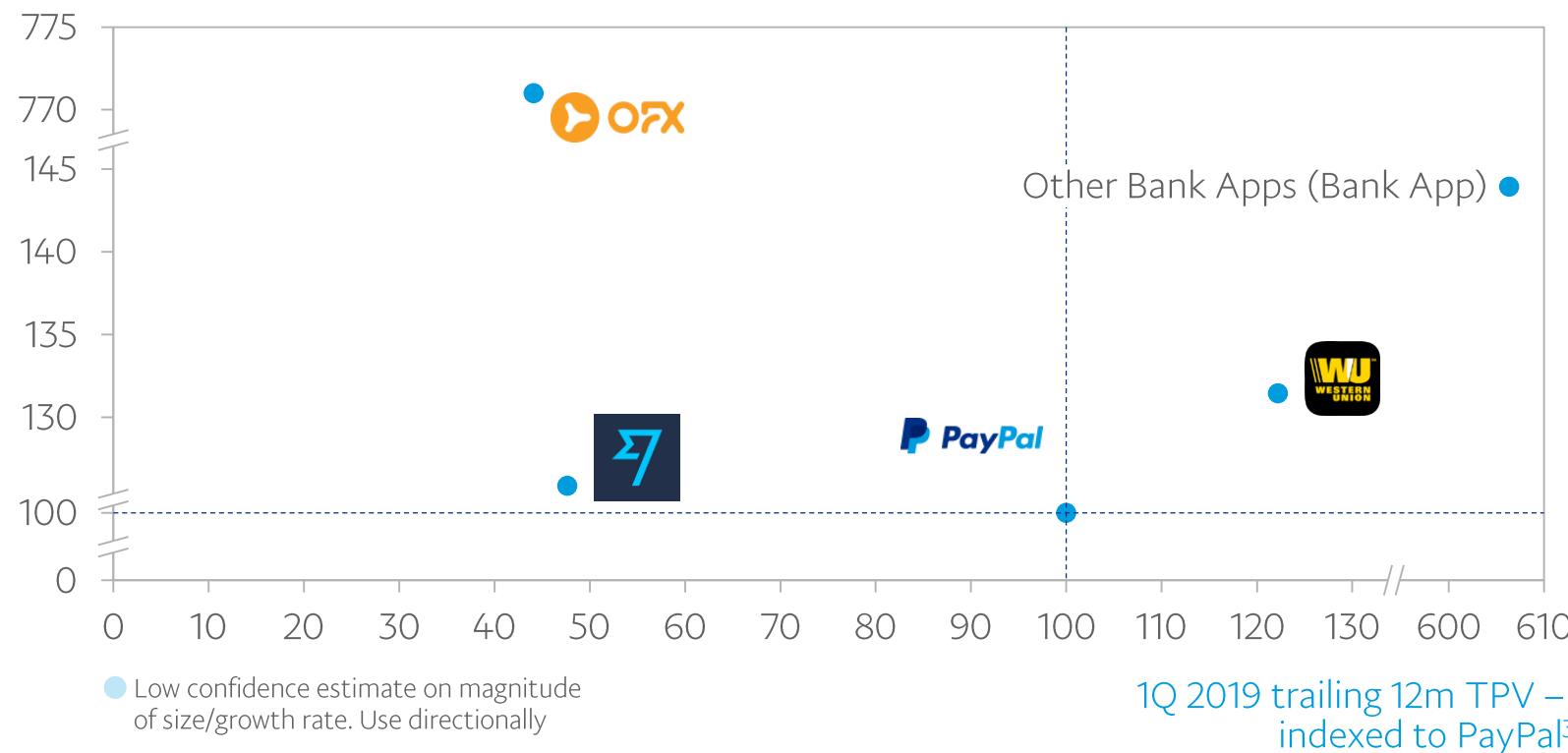
# P2P Summary: Tracking Momentum on Competitor Battlefield



Q1 2019 Market Size Estimate – \$8B

Market Y/Y Growth – 57.65%

Y/Y Momentum (TPV Growth indexed to PayPal<sup>⑥</sup>)



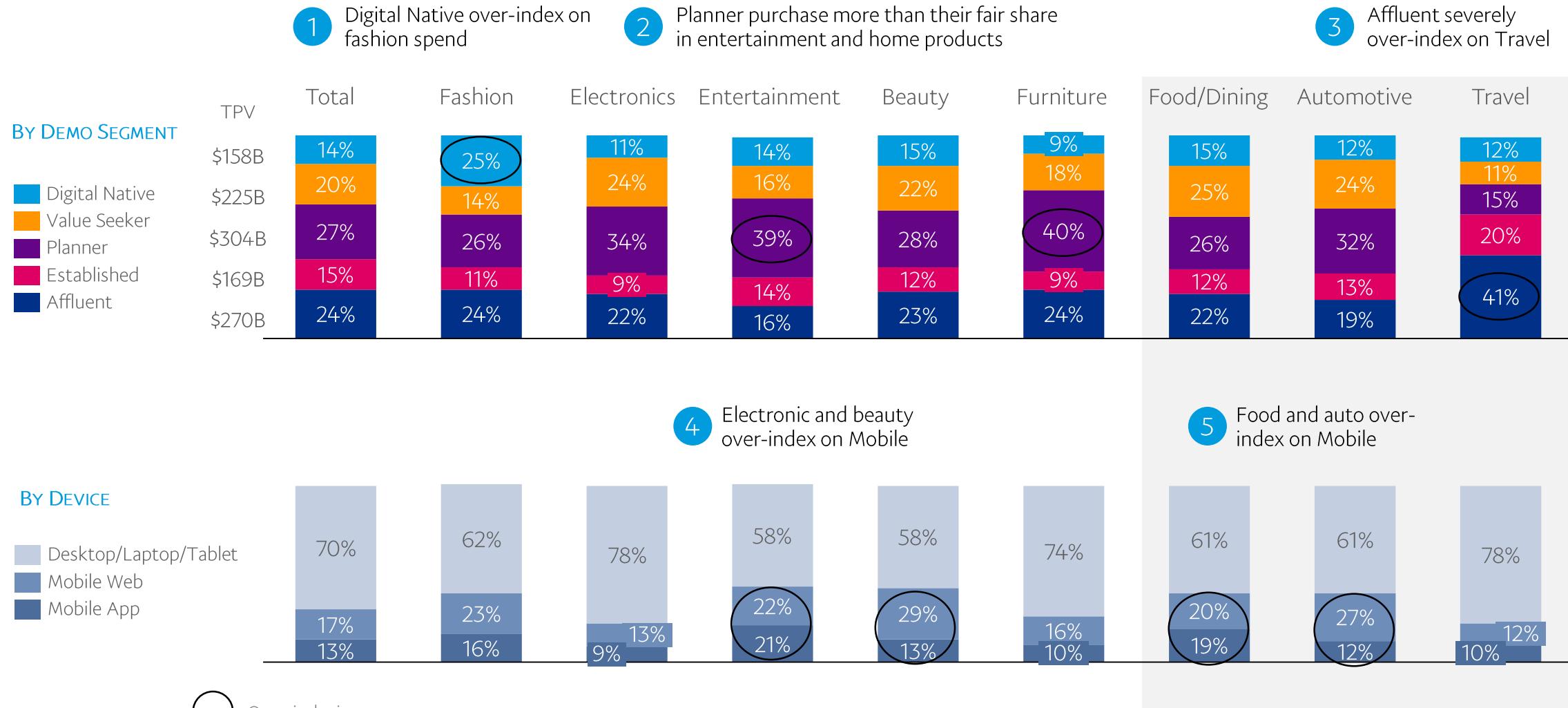
Recently launched “Borderless Account” offering.<sup>①</sup>



Focusing on decreasing friction of transferring money through the mobile app. ~70% of online transfers are started on mobile devices<sup>②</sup>

1. Source: Head of Products
2. Source: Account Manager
3. (Competitor Value) / (PayPal Value). PayPal TPV is consumer + guest upgradeable sent; across P2P G&S, P2P F&F, Invoicing

# Food/Dining and Automotive are more prevalent on mobile representing a targeting opportunity



% of TPV for each Vertical by demographic segment and the type of device they made the purchases from.

# Brand – Color mapping

PayPal		Venmo		Samsung Pay		Boleto Bancario
Credit		Xoom		Google Pay		Starbucks Pay
Debit		Bank		Chase Pay		
Visa		Western Union		Walmart Pay		
Mastercard		Square		Other		
Amex		Facebook		Vodafone		
Discover				Payback		
Direct Debit		World Remit		PostePay		
Rechnung		Circle		Skrill		
Amazon Pay		MoneyGram		MyBank		
Visa Checkout		Kwitt		Statispay		
Masterpass		Wavy		Alipay		
Apple Pay		TransferWise		JioMoney		
Klarna		Azimo		ATM Transfer		
Sofortüberweisung		PayM		Cash on Delivery		
Paydirekt		Revolut		JCB Card		
Vorkasse		Twyp		CVS		
Afterpay		Verse		Yahoo Wallet		
Zip Money		Bizum		Amazon Pay		
PayLib		Paymo		Paytm		
Pre-Paid card		LINE Pay		BHIM		
Skrill		Kyash		PhonePe		
IU Pay		Online Banking		OrigamiPay		
Poste Pay		Waon		Airtel Money		
Klarna		QuickPay				

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