



The Mobile Payments Index: A Primer

Introduction

Although much of our lives increasingly exist in digitized form, there is one realm in particular that until recently has been slow to change: payments and cash. That is now changing, and the rate of change is accelerating every day. A number of innovative mobile payment technologies have emerged to help smooth the way for both in-person and online transactions in the 21st century. While still in their infancy, mobile payment technologies stand to revolutionize the traditional ways we bank, shop online, pay for goods and services in stores, and much more.

American consumers may be most familiar with mobile payments in the form of Apple Pay or Samsung Pay, which allow users to pay online or in stores using virtual versions of their credit or debit cards. These technologies connect to existing credit cards, such as Visa, Mastercard, or American Express, to make payments more straightforward and seamless. Other mobile payment technologies such as Venmo, Zelle, or Chase Pay enable easy peer-to-peer transactions which can be ideal for making simple payments. Although these services can provide a much-needed additional convenience in the developed world, in the third world they have the potential to be truly transformational.

Mobile payment technology's penetration continues to grow, with its adoption still in the early stages. Estimates for 2017's global mobile payments market ranged as high as \$780 billion,¹ and some forecasts see annual compound growth rates of 33.8% from 2017 to 2023, reaching \$4.5 trillion by 2023.² The Prime Mobile Payments Index allows investors to track this burgeoning industry.

Key Growth Drivers

There are a number of important factors driving growth in the mobile payments space, including ballooning smartphone adoption in developing countries, a movement towards electronic payments by the unbanked, a drive for truly cashless economies, and evolving consumer preferences. Together, these three key growth drivers will help propel mobile payments growth in the coming decades.

Smartphone Penetration and the “Unbanked” in the Developing World

The exploding growth in smartphone adoption in developing countries, coupled with the relatively large proportion of people in the third world without access to traditional banks, will likely serve as a major tailwind for mobile payments in the coming years.

While mobile phone ownership has become nearly-ubiquitous in the United States, with 95% of Americans owning a cellular phone and 77% possessing a smartphone of some kind, these numbers are far lower worldwide—particularly in developing countries—even as they grow at a breakneck pace.

In 2017, smartphone usage worldwide jumped 10.8% to 2.4 billion people³ according to an estimate by the market research firm eMarketer, reaching an estimated 44% penetration worldwide.⁴ GSMA Intelligence, a smartphone market researcher, sees developing world smartphone adoption as the growth engine for smartphone penetration growth worldwide, estimating 1.6 billion new smartphone users and 62% penetration by 2020; a 20% jump.⁵

Even as smartphone usage is skyrocketing in the developed world, the “unbanked”—those without access to traditional bank accounts—remains relatively high. According to the World Bank, only 69% of adults worldwide have access to bank accounts. This is where mobile payments technologies are already stepping in, removing the need for direct access to a bank or credit union.

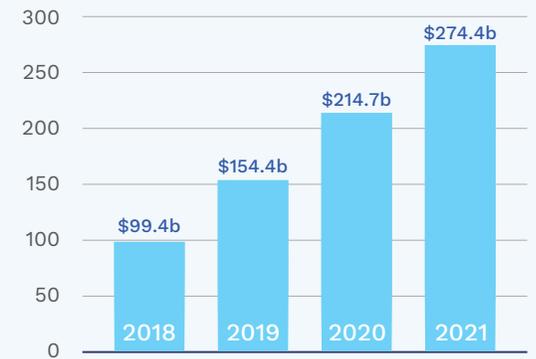
For example, more than 25 million people already use the M-Pesa mobile payments platform in Kenya, Tanzania, Lesotho, Mozambique, and the Democratic Republic of Congo to send and receive money via text message,⁶ processing \$1.9 billion in transactions in just the first quarter of 2018. Mobile payments in India currently aggregate just shy of \$200 billion worth of payments, and Credit Suisse sees India’s digital payment space alone quintupling to as much as \$1 trillion in transactions by 2023.⁷

Cashless Economies

An increasing number of countries around the world are moving towards cashless economies, which are defined by extremely high percentages of digital transactions, pervasive use of e-wallets and mobile payment systems, and electronic-only shops that no longer accept physical cash. Cashless societies offer a number of potential

Mobile Payment Volume to Nearly Triple by 2021

Estimated mobile payment transaction volume in the United States



Source: Statista Digital Market Outlook, Nov 2016

benefits, including the quicker and more efficient movement of capital, a lower degree of tax delinquency, increased security, more precise control of monetary policy, and an increased difficulty in conducting black market transactions (including money laundering) which rely on the anonymity that physical cash provides.⁸

Leading the charge towards a cashless future are a host of Scandinavian countries, including Sweden, Denmark, and Finland, however the rest of the world is not far behind. For example in 2016, India pulled 86% of its cash out of circulation overnight in an effort to stamp out corruption and draw a greater proportion of the population into the income tax system,⁹ while Vietnam has announced an ambitious initiative to become a 90% cashless economy by 2020.¹⁰

In Sweden, a country operating at the forefront of cashless economies, more than 95% of all transactions are already digital,¹¹ and many banks in the popular central neighborhoods of Stockholm no longer handle cash at all—likewise a large number of cafes, shops, and restaurants, have gone completely electronic for payments. The proportion of cash payments in the retail sector of Sweden has declined from 40% in 2010 to an astonishing 15% as of 2018.¹²

Increasing Competition & Consumer Preference

As competition has heated up in the mobile payments space, a clear winner has already emerged: consumers. A recent survey reports that roughly 47% of consumers—and 49% of millennials—prefer utilizing digital means for conducting transactions instead of cash, while fifty percent of the respondents responded that they carry cash less than half the time;¹³ when they do, 76% reported carrying less than \$50.¹⁴ To address this preference, and in order to remain competitive, executive leaders of companies across a wide variety of industries consider mobile payment technologies to be crucial tools for meeting strategic objectives and long-term goals.¹⁵

Conclusion

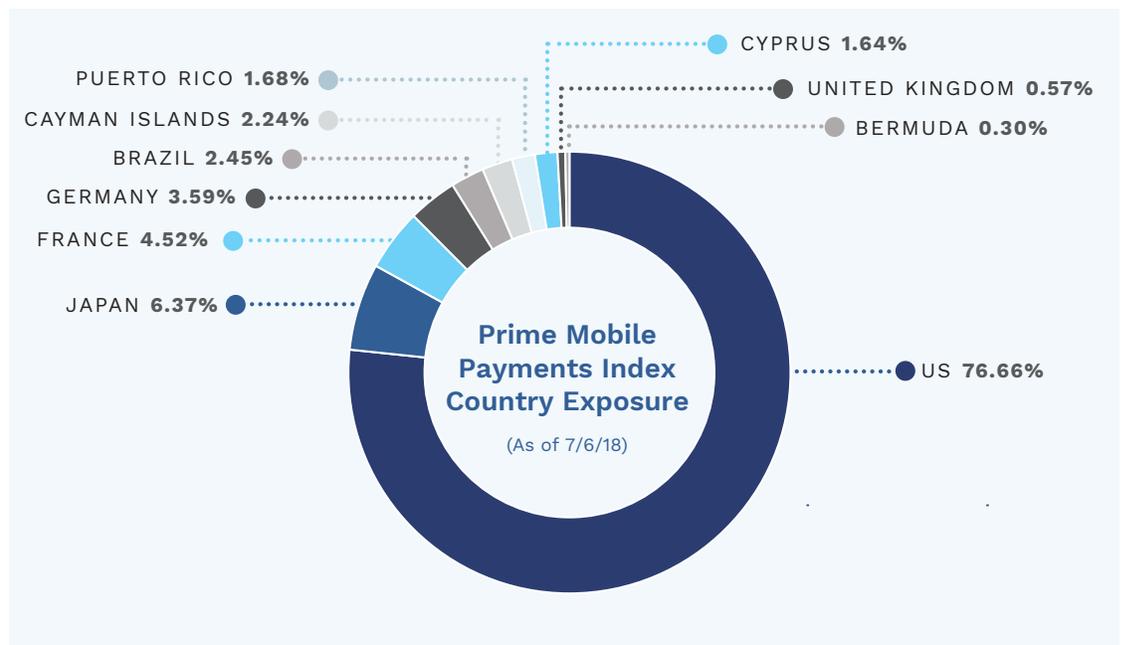
Whether it's through online banking, peer-to-peer money transfers, or virtual wallets, mobile payments are transforming the world, both at home and abroad, and it's clear that the change is only in its early stages. With societies around the globe continuing to push for a cashless future, smartphone adoption dramatically expanding throughout developing countries, and the unbanked looking to their smartphones in increasing numbers to facilitate their financial lives, the mobile payments industry appears poised for strong, sustained growth in the years ahead.

The Prime Mobile Payments Index

The Prime Mobile Payments Index was developed and is owned by Prime Indexes. The index is designed to measure the performance of companies in the Mobile Payments Industry that have satisfied specific eligibility requirements. To be considered as part of the mobile payments universe a company must:

- i.** Engage in providing payment processing services or applications,
- ii.** Provide payment solutions,
- iii.** Build or provide payment industry architecture, infrastructure or software, or
- iv.** Provide services as a credit card network.

Prime Indexes also uses additional eligibility and weighting distribution requirements as part of its methodology. Solactive AG calculates and distributes index data on behalf of Prime Indexes.



INDEX COMPOSITION (As of 7/6/18)

Component Name	Ticker	Weight	Component Name	Ticker	Weight
PAYPAL HOLDINGS INC.	PYPL	6.22%	INGENICO GROUP SA	ING	2.25%
MASTERCARD INC-CLASS A	MA	6.09%	PAGSEGURO DIGITAL LTD	PAGS	2.24%
VISA INC-CLASS A SHARES	V	6.07%	GMO PAYMENT GATEWAY	3769	2.17%
AMERICAN EXPRESS CO	AXP	5.95%	EURONET WORLDWIDE INC	EEFT	1.95%
FIDELITY NATL INFORMATION	FISV	5.07%	GREEN DOT CORP	GDOT	1.91%
FISERV INC	FISV	4.54%	ACI WORLDWIDE INC	ACIW	1.87%
SQUARE INC - A	SQ	4.25%	NCR CORP	NCR	1.86%
WORLDPAY INC CLASS A	WP	4.10%	VERIFONE SYSTEMS INC	PAY	1.78%
DISCOVER FINANCIAL SERVICES	DFS	3.83%	EVERTEC INC	EVTC	1.68%
FIRST DATA CORPORATION	FDC	3.65%	EVO PAYMENTS INC-CLASS	EVOP	1.65%
WIRECARD AG	WDI	3.59%	QIWI PLC-SPONSORED ADR	QIWI	1.64%
FLEETCOR TECHNOLOGIES INC	FLT	3.54%	USA TECHNOLOGIES INC	USAT	0.64%
DAI-ICHI LIFE HOLDINGS INC	8750	3.43%	JACCS CO LTD	8584	0.57%
GLOBAL PAYMENTS INC	GPN	3.23%	PAYPOINT PLC	PAY	0.57%
TOTAL SYSTEM SERVICES INC	TSS	3.05%	MONEYGRAM INTERNATIONAL INC	MGI	0.33%
CIELO SA	CIEL3	2.45%	NET 1 UEPS TECHNOLOGIES INC	UEPS	0.32%
WESTERN UN CO	WU	2.40%	PAX GLOBAL TECHNOLOGY LTD	327	0.30%
WEX INC	WEX	2.38%	INTELLIGENT WAVE INC	4847	0.19%
WORLDLINE SA	WLN	2.28%			

¹ <https://www.nfcworld.com/2017/01/10/349380/global-mobile-payment-market-hit-780bn-2017/>

² <https://www.alliedmarketresearch.com/press-release/mobile-payment-market.html>

³ <https://mobilemarketingmagazine.com/24bn-smartphone-users-in-2017-says-emarketer>

⁴ <https://www.strategyanalytics.com/strategy-analytics/blogs/smart-phones/2016/12/21/44-of-world-population-will-own-smartphones-in-2017>

⁵ <https://www.gsmainelligence.com/research/2017/02/smartphones-now-account-for-half-the-worlds-mobile-connections%20%20/600/>

⁶ <https://www.bai.org/banking-strategies/article-detail/an-account-of-the-unbanked-from-mobile-payments-to-more-financial-inclusion>

⁷ <https://economictimes.indiatimes.com/small-biz/startups/newsbuzz/digital-payments-in-india-to-reach-1-trillion-by-2023-credit-suisse/articleshow/62935890.cms>

⁸ <http://www.bbc.com/capital/story/20180427-does-a-cashless-society-benefit-everyone>

⁹ <https://www.bbc.com/news/world-asia-india-37974423>

¹⁰ <https://www.forbes.com/sites/forbesfinancecouncil/2017/10/24/the-cashless-economy-why-and-where-its-evolving-and-what-businesses-can-do-now-to-prepare/#3ba05a703e11>

¹¹ <https://www.npr.org/sections/parallels/2015/02/02/383321605/cash-is-definitely-not-king-for-card-carrying-swedes>

¹² <https://www.npr.org/sections/parallels/2015/02/02/383321605/cash-is-definitely-not-king-for-card-carrying-swedes>

¹³ <http://www.businessinsider.com/digital-payments-have-become-the-preferred-payment-method-2017-8>

¹⁴ <https://financialregnews.com/survey-finds-consumers-prefer-digital-apps-cash-payments/>

¹⁵ The Future of Money: How Digital Payments Are Changing Global Commerce. Oxford Economics, NTT Data, Ingenico Epayments, Charney Research. 2017.