
GLOBAL EQUITY | MARCH 2022

# Technology, Media, and Telecommunications

# Subsector Primer

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# I. Payments

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**WESTPEAK RESEARCH ASSOCIATION**

## Technology, Media & Telecom

### Paying It Forward

January 2022

*The fintech payments industry is a growing wing of the fintech umbrella that is disrupting the payments industry and tailoring financial services to emerging consumer trends. The following report analyzes and discusses key trends, competitive landscape, notable transactions, among other activity in the fintech payments space.*

#### Industry Overview

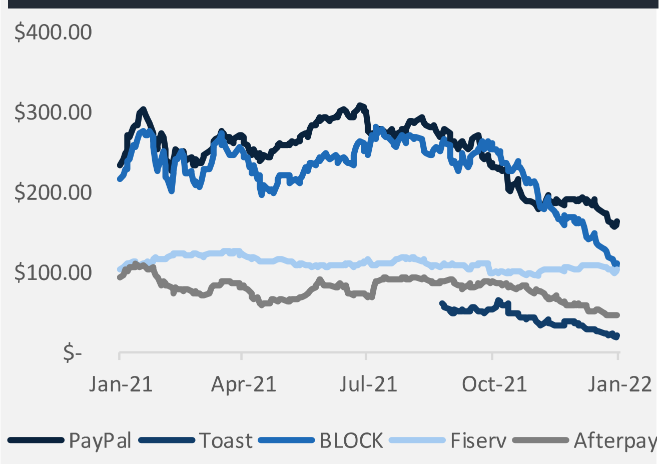
As the backbone of today's economy, the payments sector started as the earliest financial service and has since, propelled major innovations from ecommerce to globalization. The seemingly common transactions that consumers face day-to-day have created a transformative sector with a $2T global TAM growing at 7% five-year CAGR amidst COVID-19.

#### Industry Drivers

On the demand side, structural tailwinds from COVID-19 have accelerated demand for e-commerce and omnichannel payment platforms. On the supply side, we are seeing substantial progress of underlying technology and business model, combined with support from governments. On top of that, investors and companies have been quick to allocate capital and participate in the payment race. Together, these drivers formed a strong foundation for double digit growth in the space in foreseeable future.

| Industry Research | |
|---|---|
| **Industry** | **Payments** |
| **Global Revenue Growth** | 4.2% |
| **Key Companies** | |
| **PayPal** | (NASDAQ:PYPL) |
| **Enterprise Value** | $181.9B |
| **EV/ LTM Revenue** | 7.7x |
| **BLOCK (fka Square)** | (NYSE:SQ) |
| **Enterprise Value** | $50.6B |
| **EV/ LTM Revenue** | 3.1x |
| **Fiserv** | (NASDAQ:FISV) |
| **Enterprise Value** | $90.3B |
| **EV/ LTM Revenue** | 5.7x |
| **TOAST** | (NYSE:TOST) |
| **Enterprise Value** | $9.0B |
| **EV / LTM Revenue** | 6.3x |
| **Afterpay** | (ASX:APT) |
| **Enterprise Value (AU$)** | $20.1B |
| **EV / LTM Revenue** | 24.1x |

**1-Year Price Performance** **Key Companies**



# Overview of the Payments Industry

## The FinTech Ecosystem

FinTech is an umbrella term for any technology used to deliver financial services, either to improve available products or create new disrupting solutions. Over the last five years, FinTech has become increasingly pervasive as financial institutions integrated technology into their existing business model, as well as adopted emerging technology such as Blockchain. The COVID-19 pandemic hyper-accelerated this process, and we are now witnessing the paradigm shift with FinTech disrupting every layer of the notoriously slow financial services sector.

We have divided the fintech ecosystem to seven main verticals based on functionality. The first two are Payment and Digital Banking/Lending, which form the cornerstones of financial industry. **Payment** companies facilitate the payment process between customers, businesses, financial institutions, and governments by providing specialized gateway, processing technology and relevant hardware. On the other hand, **Digital Banking/Lending** companies focus on the capital behind those purchases, by providing deposit, financial management and lending of different types to consumers and businesses.

**Exhibit 1: High Level View of Fintech Landscape**


*Source: CB Insights, KPMG, BI Intelligence, FT Partners, Company Filings*

The **Wealth Management & Capital Markets** vertical includes the technology used across front, middle, and back office of businesses within these two financial services. The two most popular vertical are technology used in trading/market making (e.g. CME Group) and consumer wealth platforms (e.g Wealthsimple). For **Insurtech** players, this include both new entrants offering disruptive insurance products, technology companies that power traditional insurer and a few consumer-insurer platform. Unlike the previous two, **Enterprise Financial Management** subsector focuses more on the internal financial process of businesses such as B2B payment, accounts supervision, budgeting, and tax management.

On the generalist side, there are **Incumbents** - diversified banks with decades of experience and diverse capacity to serve clients' needs yet lacking in technological prowess. These financial institutions were central to any economy and especially during the Great Financial Crisis in 2008. Conversely, **Cryptocurrency** and **Blockchain-based** is an emerging yet vastly popular vertical, especially among retail investors. Companies in this space seek to decentralize the financial system using blockchain technology, create a new asset class and provide more transparency to the payment system.

## Focusing on Payment Subsector

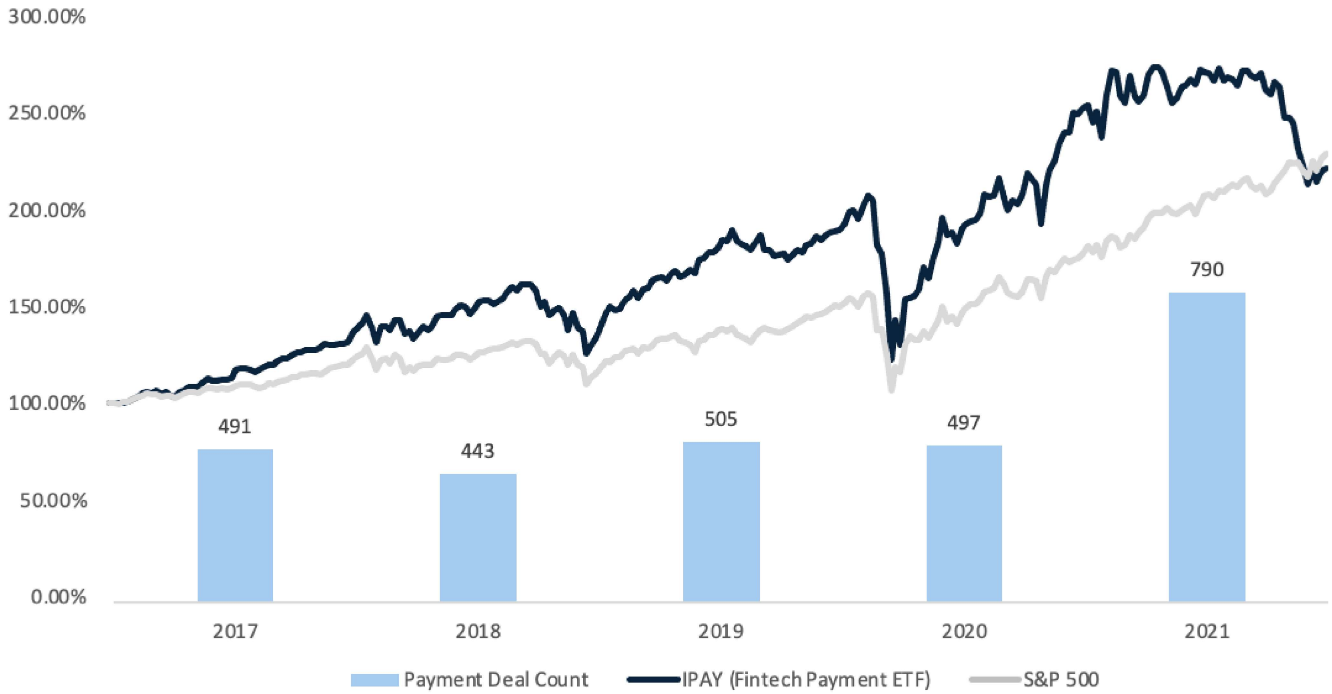
**Substantial Impact**

The payments sector was the earliest financial service to emerge and has since become the backbone for our economy. Invisible to the consumers' eye, payments underlie most business activity and has been key to major innovations from e-commerce to globalization. As COVID-19 accelerates digitalization, the role of payments will only increase, and this primer aims to shed light on what is behind our seemingly common transactions.

**Where the Money Goes** - From stock prices to deal volume, every metric has hit record high in 2021. On the other hand, businesses are increasingly pouring investments into digitalize payment systems or outright integrating them into their offerings. A primary example is Apple Pay - whose presence on US eCommerce sites surging from 0.1% in 2017 to 4% in 2020, while simultaneously boosting adoption rate among physical retailers to 90% (Credit Suisse, 2021).

**Plenty Opportunities, Little Resources** - Given generational shifts in technology, the velocity of capital inflow and a $2T global TAM growing at 7% five-year CAGR, we believe this is just the dawn of the payments sector transformation. With many sub-verticals that serve different industry segments, the payments sector offers exciting opportunities across all investing stages. However, there seems to lack a fundamental, yet comprehensive primer to navigate the space. Therefore, we decided to dedicate the rest of this primer to decompose the payments sector.

**Exhibit 2: COVID Accelerates Valuation and Deal Flow in Payment**




*Source: Company Filings, Bloomberg*

# Payments: A Brief History of Emergence

### 2022-2021

PYPL Partners with Amazon (Amazon customers can use Venmo at checkout). SQ renames as "Block". SQ announced it would acquire APT (BNPL firm). SQ introduces business checking savings account, Seller software plug-ins, POS system. SQ takes majority stake Tidal (music streaming). SQ beings banking operations and invests 18M in Satispay (P2P).

### 2020-2019

SQ receives bank status approval, introduces online checkout tool, on-demand and instant payments, Klarna's tax processing tools, labour management tool. PYPL completes $4B acquisition of Honey Science, reached 361 active accounts, 40M Venmo users. Stripe launched "PaymentIntents and PaymentMethods APIs.

### 2018/2017

SQ acquires Weebly, introduces SQ financial services, bitcoin trading in the cash app, physical debit card linked to cash app balances. Payroll App. PYPL replaced by Adyen as eBay's payment primary payment processor, and introduces P2P payment system, "One touch" platform, and acquires Swift Financial, and TIO Networks. Stripe launches" Sources" API.

### 2016/2015

SQ introduces virtual debit card, square capital, instant deposit, terminates partnership with Starbucks, acquires Kili Technology, and goes public (2015). PYPL's Venmo surpasses $1B in payments for a single month, and acquires Xoom for $890M. Stripe adds ACH debit and Bitcoin to API library.

### 2014-2013

SQ introduces Square Capital, inventory tracking, invoicing, accounting integration, Square Order, Square Stand, Square Cash App, and Square Market, and acquires Caviar. PYPL splits from eBay and goes public, acquires BrainTree Systems (owner of Venmo) for $800M.

### 2012-2011

SQ achieves $8B in GPV, raises $200M in fourth funding round, $100M in third round, and $27.5M in second round, and makes deal with Starbucks as official credit card processor, introduces Square Register (replaces cash registers), partners with Apple to sell its devices in their stores. Stripe launches "Tokens" and Charges" APIs.

### 2010-2009

SQ Introduces credit card reader, launches app in IOS and Android app stores PayPalX, and reaches $3M in GPV per day, and raises $10M in first round of finding. SQ co-founded by Jack Dorsey and Jim McKelvey in 2009.

### 2008-2006

PYPL reaches 150 user accounts (2008), rolls out PayPal Mobile (to benefit from increased mobile adoption), surpasses 100M end-user accounts (2006), acquired by eBay for $1.5B shortly after going public on Nasdaq (2002).

### 2000-1998

PYPL paves way for e-commerce functionally through eBay, launches first email-based payment technology. PYPL founded in 1998 under original name, "conformity", with digital wallet value proposition.

# Payments Industry Overview

As businesses and customers increasingly interact through internet-based shopping and transactions shift to online mediums, businesses must ensure privacy and security while prioritizing efficiency throughout their e-commerce purchase processes. Specifically, payment processing, client protection, and general security are the pillars that support the evolution of e-commerce. The burgeoning Financial Technology ("Fintech") payment processing subsector executes these vital elements while adding value through user-friendly interfaces and efficient integration with existing business operations.

## The Payments Value Chain

We have divided the payment value chain into three levels, based on their exposure to the consumers and merchants: front-end services, underlying system, and others.

**Front-end Services**

These companies provide the tools that consumer directly interacts with during the payment process.

- Point-of-Sale (POS) System: These systems enable consumer to make payments via cards, consisting of two components: the physical hardware, (e.g., a Square terminal), and the software that run the system. Companies in this space compete on production cost and expand margins by differentiating their software/user interface quality.
- Online Gateway Provider: Gateways work like POS systems, but for online payments and most commonly e-commerce. Given its virtual nature, independent gateway providers are rare as most merchant acquirers also offer this product and businesses themselves can also offer their own gateways (e.g., Shopify).
- ATM Manufacturer: Although entering saturated stage due to the emergence of a "cashless economy", ATMs are still a go-to for consumers to retrieve cash. Despite the industry's consolidated structure and high barrier to entry, the benefits were offset by its cyclicality and cost-driven competition.
- Add-on Offerings: In this vertical, companies' partner with issuing banks to offer rewards to consumers in exchange for their spending insights (e.g., Groupon). These companies operate similarly to an advertisement business.

**Underlying System**

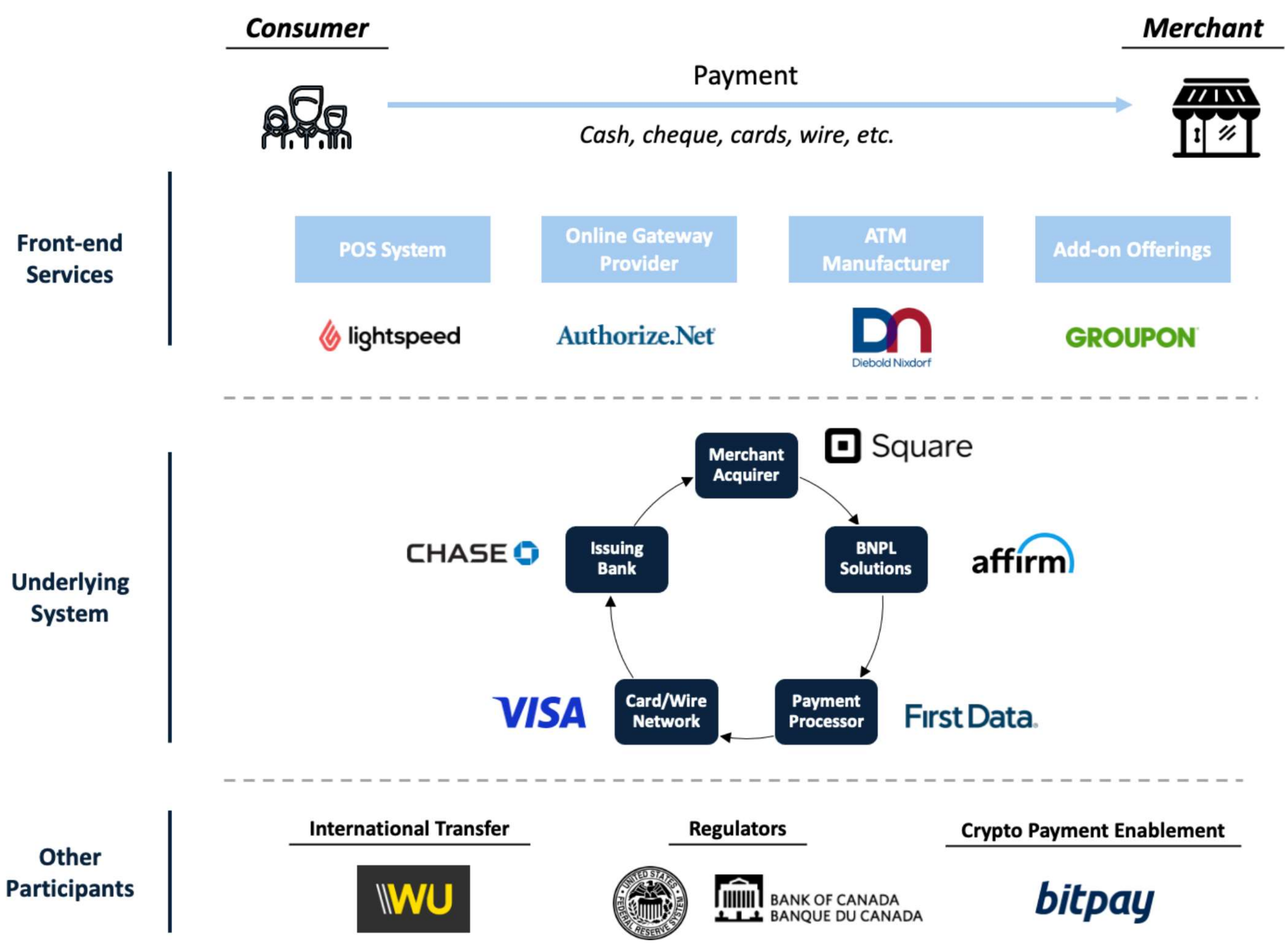
Organizations in this system operate behind the payment process. They enable merchants to set up the payment system, authorize the transaction, carry out settlement, and prevent fraud. This is also where most innovations are taking place, with major existing incumbents and rising disruptors all compete in the space.

- Merchant Acquirer: These acquirers enable businesses to accept credit and debit card payments from consumers. They are usually the first to receive payment information, passing it on to others in the system and later credit the merchants' accounts. This is also where most innovation happens, as disruptors capture on the growth of e-commerce and omnichannel sales to deliver a new payment acceptance method through the Internet.
- Buy Now Pay Later (BNPL) Solutions: This service allow consumers to make small-ticket purchases then pay through a series of interest-free installments within a few months. BNPL businesses make money from merchants in each payment (for interest-free installments), and from interest (for its line of consumer loan).

- Payment Processor: These are technology companies with the capability of authorizing and executing payment in behalf of issuing bank and merchant acquirer. Many merchant acquirers are also processors or have separate technical arm to process payments.
- Card/Wire Network: Network operators provide all players a standardized platform to transmit data in the payment process. Their pricing is strictly regulated; thus, they compete on the transaction number and volume.

Issuing Bank: These banks evaluate and issue cards to consumers, and act on behalf of consumers in processing payments. Therefore, they earn both from consumers' bank fees and from a cut of the payment volume.

**Exhibit 2: Payment System Value Chain**




*Source: Comlinkdata, Bain & Company.*

**Other Participants**

This layer includes all organizations that are critical to the payment value chain but not directly involved in the core payment system.

- International Transfer: Given the complexity and high risks in transferring money internationally, especially in minor currencies, the space has a naturally high barrier to entry. Western Union is the clear leader, and despite strong growth of tech-driven competitors, heavy regulations and international complexities mean that the landscape will not change in near future.
- Regulators: The financial industry is heavily regulated, therefore monitoring policy is a key part in navigating the industry. In the US, the Federal Reserve oversees and regulates its payment system whereas in Canada, it is the Bank of Canada.
- Crypto Payment Enablers: With the rise of Bitcoin and other cryptocurrency in the past five years, a new major payment method has emerged. As a result, some businesses and financial institutions are starting to accept Bitcoin as payment, giving rise to businesses like Bitpay - which allow organizations to do just that.

# Payments Business Model Case Studies

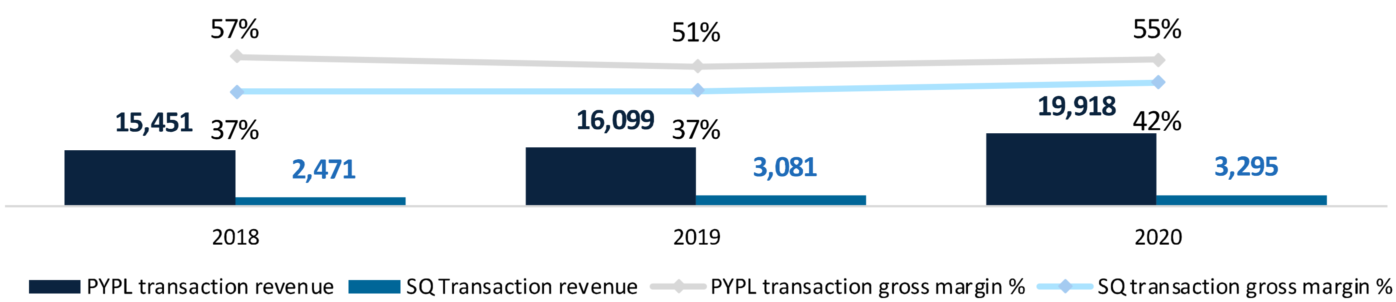
Payment processing firms generate revenue principally through transaction fees and secondly through adjacent product sales with subscriptions or one-time fees. Using BLOCK (aka Square) and PayPal as case studies, we will illustrate the revenue build and cost structure of developed players in the space.

## Operating Margin Analysis

**Transaction Fees**

Firms charge transaction fees to both merchants and consumers based on a percentage of the total transaction amount processed. For merchants, a transaction fee is charged at a point of sale (POS) with possible custom pricing for large merchants. For end-consumers, the amount is charged for peer-to-peer transactions to business accounts as well as credit card payments. Payment processing firms often also earn the additional spread on cross-border transactions (merchant and consumer are in different countries) where there is an FX conversion. The costs associated with transaction fees of interchange and assessment fees, processing fees, and bank settlement fees paid to third-party payment processors and financial institutions. In FY2020, PayPal and BLOCKs transaction-based operating margin were 55% and 42%, respectively.

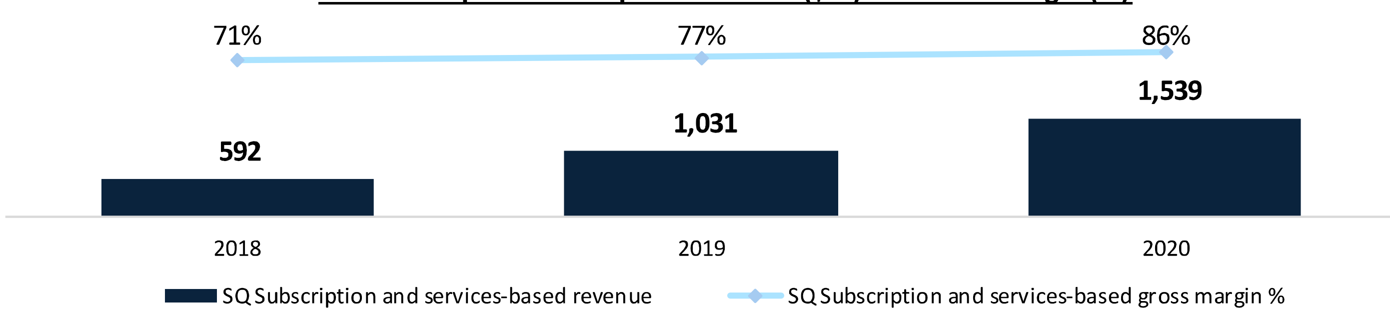
**Exhibit 4: PayPal and Square Transaction Fee Revenue ($M) and Gross Margin (%)**




**Subscription and services-based Fees**

Firms also generate residual revenues from complementary non-payment-processing products. Revenues include partnerships, referral, subscription, and gateway fees. For example, BLOCK offers website hosting and domain name registration services, gift cards, customer engagements, employee management and payroll. Payment processing firms also earn revenues from interest and fees through their loan's receivable portfolio and consumer balance assets. The costs associated with the subscription and services-based revenue include cards and primary and compulsory subscription services. In FY2020, BLOCK's subscription and services-based segment operating margin was 86%.

**Exhibit 5: Square Subscription Revenue ($M) and Gross Margin (%)**



**Hardware**
Payment processing firms also generate revenues from hardware sales that are a part of the payment processing platform. Hardware sales include magstripe and chip readers, tablet-compatible registers and terminals, and third-party peripherals (cash drawers, receipt printers, barcode scanners). Firms sell hardware to grow transaction-based revenue. As a result, most payment processing solutions companies have hardware segments with negative operating margins. The costs associated with hardware sales include product costs related to chip readers, terminals, registers, and third-party peripherals. Product costs include manufacturing-related overhead and personnel costs, certain royalties, packaging, fulfillment costs. In FY2020, BLOCK's hardware segment operating margin was (57%).

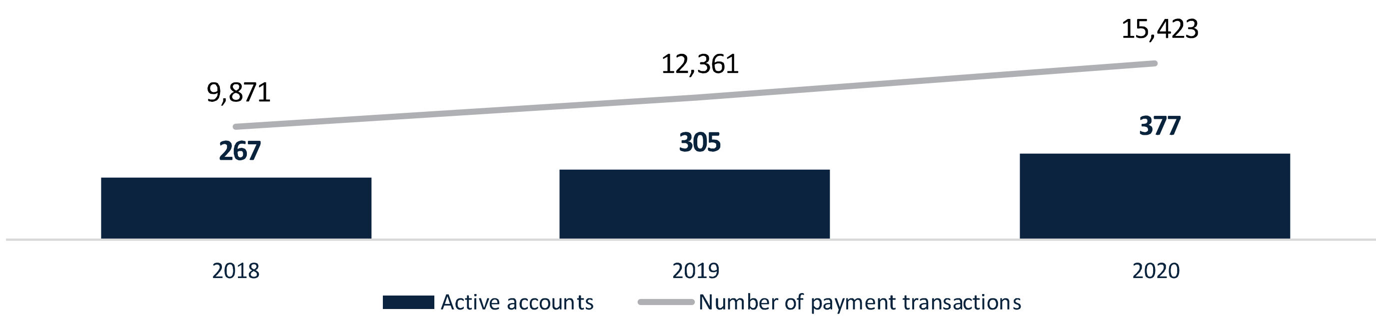
**Cryptocurrency (Bitcoin) revenue**
To a lesser extent, some payment processing firms like BLOCK offer alternative payment methods in line with the merchant's preferred payment method. For this reason, firms purchase cryptocurrency to facilitate customers' access. These payment processing firms recognize revenue when customers purchase the cryptocurrency and receive it in their accounts. They purchase cryptocurrency from private broker-dealers or end customers and apply a small margin before selling it to other end-consumers. Cryptocurrency costs include the amounts they pay to purchase cryptocurrency, which fluctuate in line with the market.

## Key Metrics Measured

Key metrics for payment processing firms include active accounts, number of payment transactions (in aggregate and per active account), and total payment volume (TPV).

**Active accounts**
Registered users with the platform that completed transactions within the past 12-months. The number of active accounts shows the growth and scale of users across the firm's payment platform.

**Exhibit 6: PayPal Transactions (M) and Active Accounts**




**Total payment volume (TPV)**
The value of payments, net of payment reversals, successfully completed on the platform. The number of payment transactions completed shows the scale and strength of the firm's platform, the engagement of customers, and underlying activity and trends.

**Payment transactions / active account**
The total number of payment transactions within the previous 12-month period, divided by active accounts at the end of the period. The number of payment transactions per active account shows the number of times a customer has engaged in payments activity on the firm's platform in each period.

## Key Success Factors

For payment processing firms to be successful, they must deliver on the following areas:

**Security**
Payment processing firms must keep their client's personal and bank information safe and secure.

**Customizability and ease of use**
Successful payment processing firms offer customization across their software and hardware. This feature applies to transfers, purchases, money orders through their electronic platform and range of services. Merchants choose payment processing solutions with a large user base and are easy to use both for themselves and their customers (for example, autosaved passwords and login ID).

**Ability to upsell adjacent products**
Firms can also offer adjacent products to their payment processing technology for their merchant clients. Upselling adjacent products to merchant clients boost top-line growth and synergies from platform effects. These products include tools to record sales transactions, data-collecting, and insight-producing software for merchant clients. Ultimately, the goal for payment processing firms is to disrupt the traditional bank business model. Their ability to sell adjacent products is crucial to expanding beyond payment processing solutions and ultimately applying and receiving bank charters that will allow them to offer the many services that banks do directly.

## Differentiating Factors

**Clientele size**
Clientele includes the people that use the payment processing platform. Platform purchasers include merchants and end-consumers (individuals who buy from the merchant using the payment processing platform). Clientele size predominantly applies to merchants; there are payment processing firms that cater their product offerings to small business owners (SMBs) such as Block Inc. (NYSE: SQ) and large retailers such as PayPal (NYSE: PYPL).

**Type of payments processed**
Offering debit and credit cards is a point of parity for payment processing firms. Payment processing firms can include other payment methods such as bank transfers and alternative financing types such as BNPL and cryptocurrency in their systems to differentiate themselves.

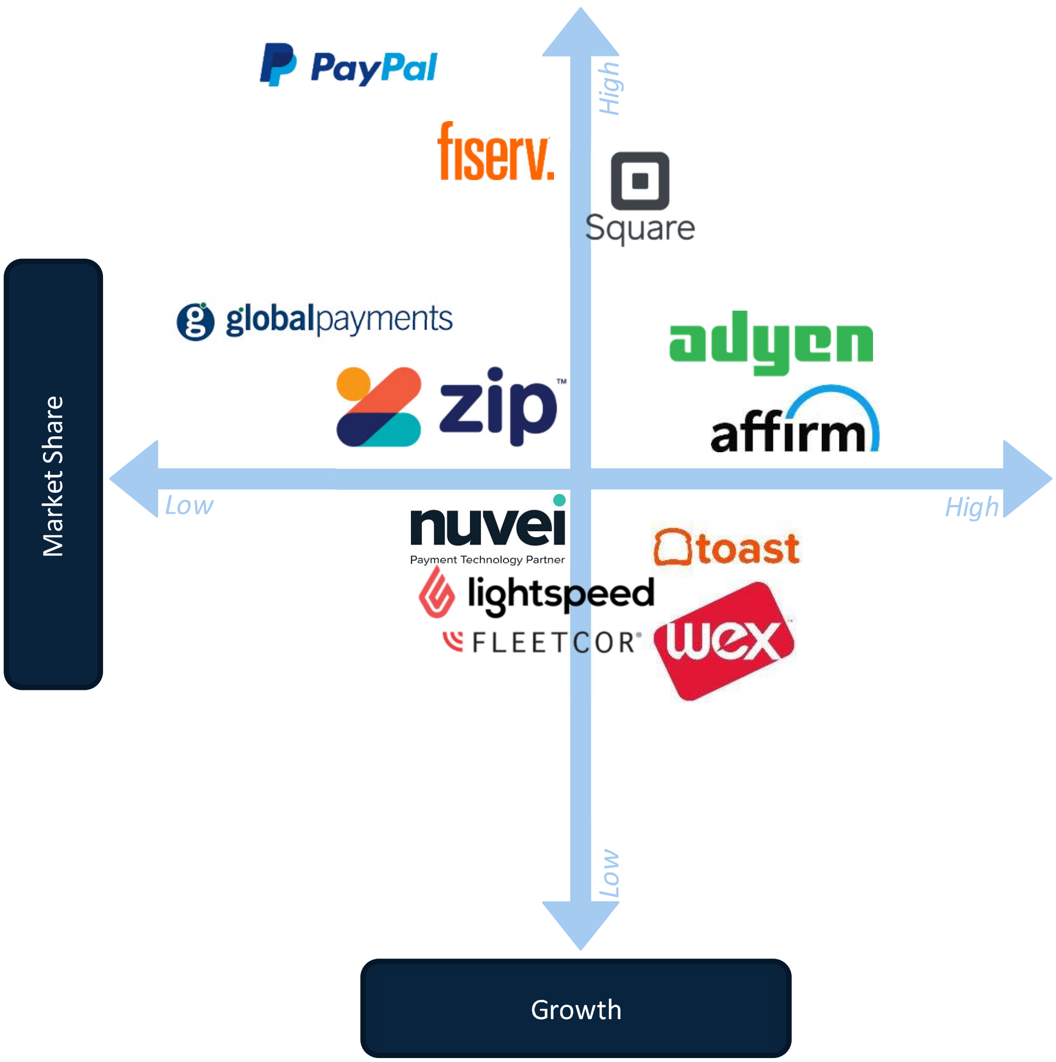
**Per-transaction price**
Payment processing firms charge per-transaction prices that suit the merchant's business model, customers, and product or service that the merchant offers. Per-transaction prices increase with the price of the underlying product or service and the merchant's size.

**Geographies**
Payment processing firms can further differentiate themselves by operating in a select geographic region or country where their supported transactions occur. Additionally, not all firms offer cross-border transactions and solely focus on domestic transactions. However, this form of differentiation is not as common as differentiation by clientele size and type of payments processed.

## Competitive Landscape

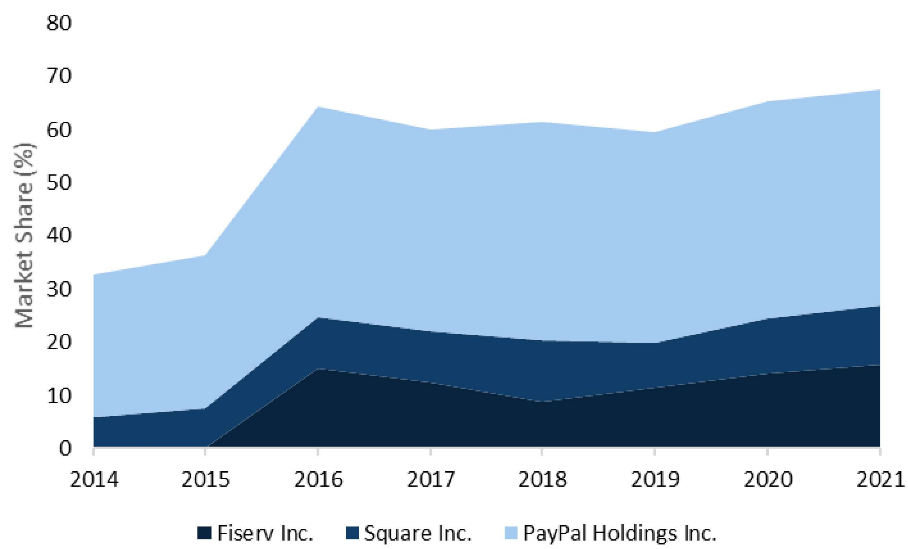
Below is a competitive landscape, representing the fintech payments space on the basis of Market Share and Growth.

**Exhibit 7: Competitive Landscape**




*Source: WestPeak Assessment*

**Exhibit 8: Market Share of Largest Payment Processors | Source: IBIS World 2021**




# Key Public Players

**PayPal (NASDAQ:PYPL)**

In FY 2020, PayPal Holdings generated $21.5B in revenue and by FY 2021, it held 40.5% of the market share. This is largely the product of early positioning in the field, as well as a strong combination of organic and inorganic growth strategies. Recent notable acquisitions include Paidy and Honey. PayPal enables digital and mobile payments for both consumers and merchants worldwide. The company profits by charging fees to merchants to complete transactions. This is driven by fee schedules which collect a percentage to facilitate sales or money transfers.

In FY 2020, PayPal reported roughly 248M active user accounts and 29M active merchant accounts. Across these accounts, PayPal processed $936B in total payments across 200 markets. PayPal offers several credit card processing services in addition to its peer-to-peer (P2P) money transferring service, Venmo.

**Fiserv (NASDAQ:FISV)**

Fiserv provides electronic commerce and payment solutions to merchants, financial institutions, and card issuers globally; it operates in 27 countries and serves over 6 million locations. Primary fintech services include account servicing, risk management, and application management solutions. In FY 2020, the company generated $9.5B in total revenue and captured 15.9% of the market share by 2021.

Fiserv provides also non-fintech payment processing services through traditional means alongside its fintech segment. In recent years, its growth has been driven by organic market share growth as well as a number of strategic acquisitions. Some notable acquisitions include First Data, Elan Financial Services, MoneyPass, and MerchantPro.

**Square (NYSE:SQ)**

Square focusses on making payment processing systems accessible to companies of all sizes, with a 95% acceptance rate for merchants interested in using its system. This flexibility has been welcomed by the market, and in FY 2020, Square generated $3.1B in revenue, growing at an annualized rate of 17.3% per year, and capturing 11.1% market share by 2021.

Square is in a growth stage and is growing rapidly through its payment processing hardware and software along with its diversified revenue lines such as appointment-booking and invoicing services as well as business loans. Its Near Field Communication (NFC) payment technology also serves as a competitive advantage. Some complimentary services that Square has developed include Cash App and Caviar—although Caviar has since been sold-off.

# Recent Industry Developments and Drivers

## Key Trends – Omnichannel Payment, Rise of Buy Now Pay Later (BNP) & Adoption of SaaS Model

**Omnichannel On a Global Scale**

Even prior to COVID-19, e-commerce has been growing rapidly, in which cross-border e-commerce was the highest growing subsegment at a 23% 5-year CAGR (Credit Suisse, 2020). The pandemic has only accelerated this trend and e-commerce is now becoming a crucial part of the economy, opening the door to major markets across the globe such as China. This accelerated demand for payment platforms that offer solutions across different channels and preferably on a global scale. Well-prepared companies are capitalizing on this opportunity by expanding their offerings, deepening integration with customers and 3rd parties, and ultimately expanding their moat in a crowded market. Companies with strong omnichannel strategies enjoy 89% retention rate compared to 33% of those with weak omnichannel strategies, and the gap continues to widen (Credit Suisse, 2021).

<u>Key Beneficiaries:</u> Stripes, Adyen, Fiserv, FIS, Worldpay

<u>Impact Assessment:</u> Mid-term structural trend with extensive impact, expecting to fully play out in the next three years

**Merchant Acquirer & Buy Now Pay Later (BNPL) - Can't Join Them? Buy Them**

Also emerging from COVID-19, BNPL companies have been at the center stage for payments in 2022. Rightfully so, these companies are becoming more and more popular to consumers, as they seek to disrupt major markets of card issuers and growing on average of 80% in 2021. Merchants and e-commerce platforms are adopting the product as it is driving consumer spending and provides a more stable, predictable revenue stream. On the other hand, large payments players are either building out in-house BNPL functions (e.g. PayPal) or acquiring BNPL platforms at heavy price tag (e.g. Square acquires Afterpay at $29B valuation). It is expected that BNPL will continue its growth into the future, but market players are still monitoring actual material impact of BNPL solutions on payment volume and consumer behaviors, especially once COVID-19 impact are fully gone.

<u>Key Beneficiaries:</u> Affirm, Zip, Sezzle, Uplift, Flex, Klarna and merchant acquirers that have enabled BNPL

<u>Impact Assessment:</u> Cyclical trend with narrow impact (i.e mostly card issuers), expecting to play out in the next three years

**Software Integrates Payment, Payment Integrates Software**

"Every company will be a fintech company" - A16z (venture capital firm). A combination of a growing, multibillion online gross merchandise volume (GMV) and emerging infrastructure that enable companies to build internal payment gateways has opened a new growth avenue for software companies. For example, Shopify – the leading Canadian e-commerce firm started by relying on integration with third parties like Stripe during its early days. As of 2022, Shopify has developed its own payment gateway and started charging premium pricing for those who use third party services, and it now derives 51% of its revenue from payment processing.

On the other end of the spectrum, with the rise of omnichannel, payment companies are se izing on opportunities to provide add-on services. Square has been a leader in this space by providing a full suite of services, from enterprise software such as order flow management and payroll to customer-centric solutions including appointment scheduling and gift cards. Given the attractive recurring revenue stream with margin expansion opportunity through cross selling, payment companies have seemingly found a new way to engage customers in their ecosystems that is less cash intensive.

<u>Key Beneficiaries:</u> Businesses that are fast to deploy and successfully execute the strategy. Model businesses for software companies include Shopify, MindBody and RealPage. Model businesses for payment companies include Square, Stripe, etc.

<u>Impact Assessment:</u> Structural trend with extensive impact but mostly limited to the consumer-facing side rather than the network level players, like Visa; the trend is expected to fully play out in the next five years.

## Growth Drivers – International E-commerce, Payment-as-a-Platform (PaaP), NFC

**International E-commerce**

While global trade flows dropped during the pandemic, increased international e-commerce sales opened doors to the relatively untapped international and cross-border payments market. For more complicated cross-border transactions, operators can charge higher fees which boost industry revenues and profit margins. Recently, Singapore and Thailand linked their national systems, PayNow and PromptPay, where users instantly sent money using only a mobile phone number. Moreover, the recent adoption of ISO 20022, a globally developed methodology for providing consistent messaging standard for payments, will further contribute to cross-border transactions. Major operators like Paypal and Google with Wise and Western Union also began offering international money transfer features.

**Payment-as-a-Platform (PaaP)**

PaaP is expected to be the next major product development following the growth of mobile payment platforms. It acts as an all-encompassing single interface connecting disparate payment platforms and other online payment methods and globally enabling consumers to use any variety of local, regional and global payment options (e.g. prepaid cards, local banks and payment processing platforms). However, standardization may will require a long time as consumers are cautious in accepting new methods of payments.

**Near Field Communication (NFC)**

Near Field Communication (NFC) allows secure transactions by holding secure information and supporting encryption between two electronic devices. Compared to Europay, MasterCard, and Visa (EMV), commonly known as a transaction between a chip-enabled credit card and an EMV-enabled payment terminal, NFC transactions only require seconds, all within a mobile phone. As a result, since 2011 to 2018, major phone producers supported the growth of NFC-enabled mobile phones from 5% to 73%. NFC technology is heavily used through Apple Pay and Google Pay e-wallets in phones/watches or tap-to-pay credit/debit cards promoting a contactless and fast checkout process. Square, who also offers its own NFC payment equipment, found that 52% of businesses that started taking online payments this past year began doing so during the first two months of the pandemic. According to ABI Research, NFC connected devices will reach 17 billion by 2024 with an annual growth of 15-25%.

# Valuation Commentary

## Payment Valuation Commentary

As businesses integrate financial products to provide an add-feature platform experience for their customers, this has led to positive reactions that expanded valuation multiples across the industry. Within the FinTech space, the digitization of payments dominated, being pulled 5+ years forward in both the B2C and B2B spaces, during the onslaught of COVID-19. Higher value creation was seen in payment businesses compared to other areas of financial services even before the pandemic. This is demonstrated through its TAM measured in trillions, valued around $125 trillion on the B2B side, which prompted growing interest from VCs. As a result, this brings us to understand the valuation behind these payment businesses.

**EV/Sales:** Sales are often used over EBITDA as payment businesses are often not profitable in early stages as noted in online payments, BNPL, and payment POS solutions in Exhibit 9, compared to major players with larger scale.

**P/E:** Payments stocks boast expensive valuations with mid-20s or higher P/E multiples. Depending on the company, growth adjusted basis valuations may prove to be more reasonable by factoring the growth rate in earnings per share that are expected in the future. This helps eliminate adjust companies that have a high growth rate and a high P/E ratio.

## Payment Comparable Companies Analysis

In our analysis below, we've provided a select number of companies that we've been tracking. These companies are worth highlighting as we believe they have grown significantly in their respective subgroups. Skyrocketing levels of adoption in e-commerce channels and acquisition opportunities has provide vast benefits: scale, synergized operations, and a growing product portfolio.

## Exhibit 9: Payment Valuations Overview

| *(Figures in mm USD)* Company | Equity Value | Enterprise Value | 21E P/E | 21E EV/EBITDA | 21E EV/Sales | 22E EV/Sales | 21E Sales Growth | LT EPS |
|---|---|---|---|---|---|---|---|---|
| **Payment Networks** | | | | | | | | |
| Visa Inc. | 458,209 | 464,328 | 35.0 x | 26.6 x | 18.4 x | 15.9 x | 17.0% | 17.0% |
| Mastercard Incorporated | 355,101 | 362,145 | 43.5 x | 33.2 x | 19.2 x | 16.1 x | 23.0% | 25.0% |
| **Median** | | | **39.3 x** | **29.9 x** | **18.8 x** | **16.0x** | **20.0%** | **21.0%** |
| **Mean** | | | **39.3 x** | **29.9 x** | **18.8 x** | **16.0x** | **20.0%** | **21.0%** |
| **Online Focused Payments** | | | | | | | | |
| Paypal | 221,671 | 218,077 | 40.9 x | 29.7 x | 8.6 x | 7.2 x | 18.0% | 18.0% |
| Ayden | 80,947 | 77,289 | nm | nm | 67.7 x | 48.7 x | 47.0% | 45.0% |
| Bango | 205 | 195 | 52.9 x | 32.1 x | 9.8 x | 7.8 x | 21.0% | 31.0% |
| Fawry | 758 | 680 | 89.6 x | 23.2 x | 6.5 x | 4.8 x | 34.0% | 28.0% |
| dLocal | 11,290 | 11,000 | nm | nm | 45.6 x | 27.0 x | 132.0% | na |
| Shopify | 174,785 | 168,367 | nm | nm | 36.8 x | 27.6 x | 56.0% | 43.0% |
| **Median** | | | **52.9 x** | **29.7 x** | **23.3 x** | **17.4x** | **40.5%** | **31.0%** |
| **Mean** | | | **61.1 x** | **28.3 x** | **29.2 x** | **20.5x** | **51.3%** | **33.0%** |
| **Merchant Acquiring/Processing** | | | | | | | | |
| Block | 75,853 | 76,433 | 95.7 x | 77.1 x | 4.3 x | 4.1 x | 86.0% | 36.0% |
| Global Payments | 39,256 | 48,493 | 16.1 x | 13.4 x | 6.3 x | 5.7 x | 15.0% | 20.0% |
| Nuvei | 9,704 | 9,936 | 38.9 x | 31.6 x | 13.8 x | 10.5 x | 92.0% | 43.0% |
| PagSeguro | 8,642 | 8,457 | 31.3 x | 15.8 x | 4.6 x | 3.5 x | 51.0% | 39.0% |
| EVO Payments | 2,135 | 2,505 | 29.3 x | 14.1 x | 5.0 x | 4.5 x | 13.0% | 21.0% |
| Network International | 2,176 | 2,218 | 38.1 x | 16.2 x | 6.4 x | 5.1 x | 22.0% | na |
| **Median** | | | **34.7 x** | **16.0 x** | **5.7 x** | **4.8x** | **36.5%** | **36.0%** |
| **Mean** | | | **41.6 x** | **28.0 x** | **6.7 x** | **5.6x** | **46.5%** | **31.8%** |
| **Buy Now Pay Later** | | | | | | | | |
| Affirm | 30,657 | 31,437 | nm | nm | 28.7 x | 20.6 x | 59.0% | -34.0% |
| Afterpay | 17,967 | 18,074 | nm | nm | 21.7 x | 13.4 x | 60.0% | na |
| Zip | 1,801 | 3,054 | nm | nm | 7.8 x | 5.3 x | 90.0% | na |
| **Median** | | | **-** | **-** | **21.7 x** | **13.4x** | **60.0%** | **-34.0%** |
| **Mean** | | | **-** | **-** | **19.4 x** | **13.1x** | **69.7%** | **-34.0%** |
| **Payment POS Devices/Solutions** | | | | | | | | |
| Toast | 19,012 | 17,882 | nm | nm | 10.7 x | 7.8 x | na | na |
| Lightspeed POS | 6,178 | 5,058 | nm | nm | 13.5 x | 9.7 x | 170.0% | na |
| Olo | 3,157 | 2,559 | nm | nm | 17.2 x | 13.4 x | 51.0% | na |
| PAR | 1,472 | 1,579 | nm | nm | 5.7 x | 4.7 x | 30.0% | na |
| Cantaloupe | 636 | 576 | nm | 52.8 x | 3.1 x | 2.7 x | 23.0% | na |
| **Median** | | | **-** | **52.8 x** | **10.7 x** | **7.8x** | **40.5%** | **0.0%** |
| **Mean** | | | **-** | **52.8 x** | **10.0 x** | **7.7x** | **68.5%** | **0.0%** |
| **B2B Payment Solutions** | | | | | | | | |
| FleetCor | 18,434 | 22,904 | 17.1 x | 15.0 x | 8.2 x | 7.2 x | 17.0% | 18.0% |
| Edenred | 11,495 | 13,347 | 30.9 x | 17.9 x | 7.3 x | 6.5 x | 10.0% | 17.0% |
| WEX | 6,318 | 8,993 | 15.8 x | 13.1 x | 4.9 x | 4.4 x | 17.0% | na |
| **Median** | | | **17.1 x** | **15.0 x** | **7.3 x** | **6.5x** | **17.0%** | **17.5%** |
| **Mean** | | | **21.3 x** | **15.3 x** | **6.8 x** | **6.0x** | **14.7%** | **17.5%** |

*Source: FT Partners Payments January 2022*

# TOAST, INC. (NYSE: TOST)

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**Fintech | Payment Subsector**

## A TOAST TO NORMALIZATION

February 2021

*Toast Inc ("Toast" or "the Company") is a cloud-based Point-of-Sales (POS) platform built specifically for the restaurant industry. Toast offers two main services: POS system where Toast charges based on payment volume, and restaurant management software with subscription fees. The company recently went public through IPO in August 2021.*

### Internal Analysis – Growth & Scalability Is the Key

Currently, there are two major drivers to Toast's business: a cyclical trend from restaurants' complete reopening and a structural tailwind from the industry's digitalization. We expect reopening will lead to a strong boost in Gross Payment Volume (GPV), which in turn improve top line growth significantly in first half of 2022. On the other hand, Toast's ability to sustain mid-term growth at 50%+ YoY while improving gross margin will be critical to proving its business model. In 2022, we will keep a close eye on the restaurant counts, ARR growth and gross margin as proxy of Toast's go-to-market efficiency.

### External Analysis – Stiff Competition in An Underserved TAM

The restaurant POS and payment processing is a highly competitive space. On the one hand, general players like Square, Lightspeed POS have entered given low barrier to entry and early mover advantage. On the other hand, there are also restaurant-specific players such as Micro or Touchbistro. However, there is yet a clear winner and given we are only in early stage the $55B restaurant digital payment market, there are lots of opportunities for all participants.

### Valuation – Target Price US$30.00 and upside of 5.6%

Overall, we based our valuation off fundamental analysis, with expectations of 7.8% consolidated revenue growth for 2021 due primarily to assumptions for inorganic growth in their Wireline segment. We expect EBITDA margins to be a little lower than consensus as integration costs of newly announced M&A will lead to margin erosion.

| Equity Research | US |
|---|---|
| **Price Target** | **USD$ 30.00** |
| **Rating** | Hold |
| **Share Price (Jan 7th Close)** | USD$ 28.40 |
| **Total Return** | 5.6% |

| Key Statistics | |
|---|---|
| **52 Week H/L** | $27.54/$18.55 |
| **Market Capitalization** | $14.335M |
| **Average Daily Trading Volume** | $2.47M |
| **Total Debt** | $0M |
| **Enterprise Value** | $13.015M |
| **Total Debt/EBITDA** | N/A |
| **Diluted Shares Outstanding** | $504M |
| **Free Float** | 25.34% |
| **Dividend Yield** | N/A |

| WestPeak's Forecast | 2020A | 2021E | 2022E |
|---|---|---|---|
| **Revenue** | $14.7B | $15.5B | $16.7B |
| **EBITDA** | $5.7B | $5.7B | $6.1B |
| **Net Income** | $1.7B | $1.4B | $1.6B |
| **EPS** | $1.45 | $1.15 | $1.30 |
| **P/E** | 18.6x | 23.7x | 20.7x |
| **EV/EBITDA** | 9.3x | 9.3x | 8.7x |

**1-Year Price Performance**

# FISERV, INC. (NASDAQ:FISV)

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**Fintech | Payment Subsector**

## OLD AND NEW

February 2021

*Fiserv (or "the company") is a global fintech and payments company with banking, global commerce, merchant acquiring, billing and payments, and point-of-sale offerings. The company already has a strong presence in fintech payments and continues to do so through R&D and acquisitions.*

### Internal Analysis – Diversification is Key

Fiserv has a diversified portfolio of payments and risk management products—adapting to commerce trends while still engaged in more traditional payment processing spaces. A primary focus of this diversification is Clover, which is processing roughly two times as many transactions as Square, and Carat which competes with companies like Ayden—both with growth expectations of an annualized 20%. These subsidiaries will be the strongest drivers of Fiserv's growth in fintech payments.

### External Analysis – Established and Innovative

Fiserv is the underlying processor for Stripe, Braintree, and PayPal (their success bodes well for Fiserv) and Fiserv is the number one provider of core processing to 11,000 banks and credit unions in the US. Fiserv's Clover and Block's Square headline open platform payment processing that lends itself to SMBs and makes the services more accessible, which is a crucial trend in both commerce and payments. Fiserv is well-positioned within traditional payment processing and on the fintech frontier.

### Valuation – Target Price US$30.00 and upside of 5.6%

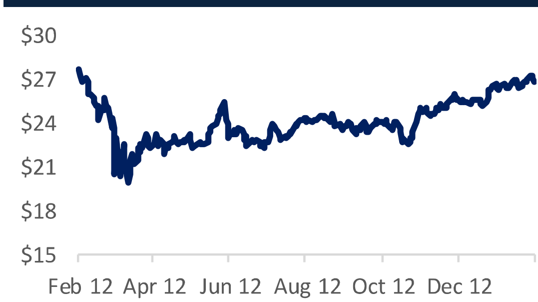
Using comparable companies PayPal Holdings, Block, Global Payments, Fidelity National Information Services, and Paychex, we applied median TTM EV/Sales, FWD EV/Sales, TTM EV/EBITDA, FWD EV/EBITDA, and weighted each equally. This implied a share price of $154.32, representing a 41.8% return. Thus, we initiate a buy rating.

| Equity Research | US |
|---|---|
| **Price Target** | **US$ 154.32** |
| Rating | Buy |
| Share Price (Jan 7th Close) | CAD$ 108.83 |
| Total Return | 41.8% |
| **Key Statistics** | |
| 52 Week H/L | $127.34/$92.06 |
| Market Capitalization | $71.85B |
| Average Daily Trading Volume | $4.65M |
| Total Debt | $20B |
| Enterprise Value | $91.9B |
| Total Debt/EBITDA | 3.6x |
| Diluted Shares Outstanding | 683.4M |
| Free Float | 91.5% |
| Dividend Yield | N/A |

**WestPeak's Forecast**

| | 2020A | 2021E | 2022E |
|---|---|---|---|
| Revenue | $14.7B | $15.5B | $16.7B |
| EBITDA | $5.7B | $5.7B | $6.1B |
| Net Income | $1.7B | $1.4B | $1.6B |
| EPS | $1.45 | $1.15 | $1.30 |
| P/E | 18.6x | 23.7x | 20.7x |
| EV/EBITDA | 9.3x | 9.3x | 8.7x |

**1-Year Price Performance**



**Analyst:** Nicole Zhu, BCom. '23
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# FIRST DATA - Target (NASDAQ:FDC)
# FISERV – Acquirer (NASDAQ:FISV)

Fintech – Payment Subsector

## The Fintech Company That Only Gets Better

January 2022

**Buyer:** Fiserv (NasdaqGS:FISV) – international provider of account processing and digital banking solutions, card issuer processing and network services, payments, and e-commerce.

**Target:** First Data Corporation (NYSE:FDC) – global player in the e-commerce and payment solutions for merchants, financial institutions, and card issuers space.

### Transaction Overview

On Jan. 16, 2019, it was announced that Fiserv will acquire First Data in an all-stock transaction. Shareholders received 0.303 Fiserv shares for each share of First Data common stock representing an equity value of $22B. This presented a premium of 29% from Jan.15 close price from $17.54 to $22.74. Going forward, the two company shareholders will co-own the combined company with Fiserv shareholders owning 57.5%, and First Data shareholders owning 42.5%.

### Deal Synergies

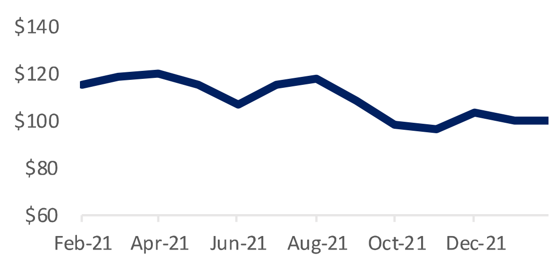
The merger will bring forth compelling strategic, financial, and leadership synergies. Fiserv will be able to scale their differentiated financial services platform with enhanced features and an end-to-end solution. Moreover, they now have access to comprehensive distribution channels, deep expertise in partnering with financial institutions, and leading technology capabilities.

It is estimated that $500M of revenue synergies and $900M of run-rate cost synergy savings will be realized over five years (2019-2023) through streamlining tech infrastructure, optimizing operational footprint, and removing duplicate corporate structures. With the expectation of significant free cash flow of $4B in 2011, Fiserv planned to deploy the cash remaining committed to high investment grade debt ratings.

Experience from top executives on each side will strongly leverage the capabilities of the two companies and defend while growing Fiserv's moat in a competitive market. The board consists of 10 members, six from the board of Fiserv and four from the board of First Data.

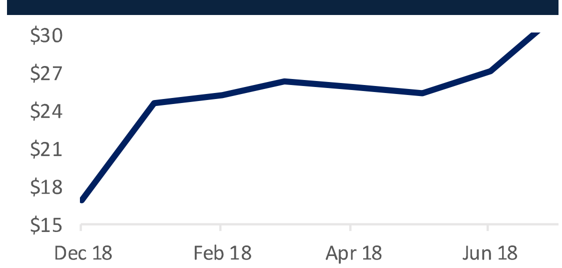
| Key Statistics - Fiserv | |
|---|---|
| 52 Week H/L | $127.34/$92.06 |
| Market Capitalization | $71.85B |
| Average Daily Trading Volume | 4.65B |
| Net Debt | $20.06B |
| Enterprise Value | $91.9B |
| Net Debt/EBITDA | 3.5x |
| Diluted Shares Outstanding | $683.4M |
| Dividend Yield | N/A |

**1-Year Price Performance** Fiserv




| Key Statistics – First Data | |
|---|---|
| 52 Week H/L | $31.69/$15.62 |
| Market Capitalization | $29.91B |
| Average Daily Trading Volume | N/A |
| Net Debt | $16.78B |
| Enterprise Value | $43.13B |
| Net Debt/EBITDA | 22.26x |
| Diluted Shares Outstanding | $937M |

**1-Year Price Performance** First Data



# BLOCK INC. (NYSE: SQ)

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**Fintech | Payment Subsector**

## BLOCK INC. AFTERPAY DEAL SUMMARY

February 2021

**Buyer:** Block, Inc (NYSE: SQ) – SQ's two main operating segments are its Sellers and Cash App. Sellers use SQ to reach buyers online and in-person, manage their business, and access financing. Individuals use Cash App to spend, send, store, and invest money. TIDAL, SQ's newest segment, is a global music and entertainment platform that expands SQ's purpose of economic empowerment to artists.

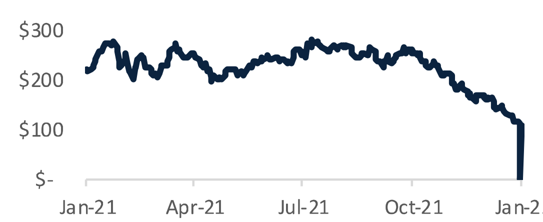
**Target:** Afterpay Limited (ASX: APT) – APT allows customers to receive products immediately and pay for their purchases over four installments, always interest-free. The service is completely free for customers who pay on time. As of June 30th, 2021, APT is offered by nearly 100,000 of the world's favourite retailers and has more than 16.2 million customers. APT is currently available in Australia, the United States, Canada, New Zealand, and in the United Kingdom, France, Italy and Spain, where it is known as Clearpay.

### Transaction Overview

On August 1st, 2021, Block, Inc (NYSE: SQ) and Australian buy now, pay later (BNPL) giant APT Limited (ASX: APT) announced that they entered into a Scheme Implementation Deed under which SQ has agreed to acquire all of the issued shares in APT. The transaction has an implied value of approximately US$29 billion (30% premium on APT) based on the closing price of SQ's common stock ($247.26) on July 30th, 2021, and is expected to be paid in all stock. If the deal goes through, it will be the largest that the Fintech space has ever seen. The acquisition aims to enable both companies to deliver better compelling financial products and services that expand access to more consumers and drive incremental revenue for merchants of all sizes. The transaction's closing is expected in the first quarter of the calendar year 2022, subject to the completion of filings relating to the pending transaction and shareholder and government approval.

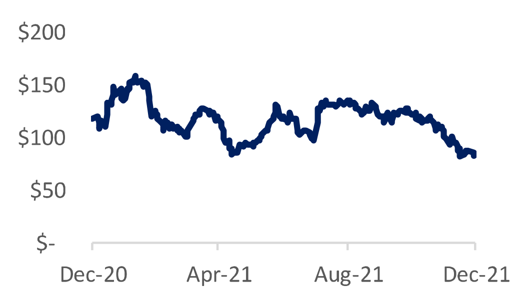
| Key Statistics - Block | |
|---|---|
| 52 Week H/L | $289.23/101.77 |
| Market Capitalization | $51.20B |
| Average Daily Trading Volume | $9.80M |
| Total Debt | $5.92B |
| Enterprise Value | $49.09B |
| Total Debt/EBITDA | N/A |
| Diluted Shares Outstanding | 461.28M |

**1-Year Price Performance** Block




| Key Statistics – Afterpay | |
|---|---|
| 52 Week H/L | $160.05/$66.47 |
| Market Capitalization | $19.97B |
| Average Daily Trading Volume | N/A |
| Net Debt | $108.6M |
| Enterprise Value | $17.95B |
| Net Debt/EBITDA | -24.81x |
| Diluted Shares Outstanding | $290M |

**1-Year Price Performance** Afterpay



### Transaction Rationale

For SQ, BNPL presents an attractive opportunity supported by shifting consumer preferences away from traditional credit, especially among younger consumers, consistent demand from merchants for ways to grow their sales, and global growth in omnichannel commerce. SQ will integrate APT into its existing ecosystems, Sellers and Cash App, and unlock cross-selling opportunities with APT. The addition of APT will accelerate SQ's strategic priorities for its Seller and Cash App ecosystems. SQ plans to integrate APT into its existing Seller and Cash App business units so that even the smallest merchants can offer BNPL at checkout. The integration will also give APT consumers the ability to manage their installment payments directly through Cash App. Cash App customers will be able to find merchants and BNPL offers directly within th e app.

APT's global merchant base will accelerate SQ's growth with larger sellers and expansion into new geographies while helping to drive further acquisition of new SQ sellers. APT will expand Cash App's growing product offering, enable customers to manage their repayments, and help customers discover new merchants when the APT App is integrated into Cash App. APT will benefit from SQ's 70 million annual active Cash App customers and millions on sellers, which will expand APT's reach and growth both online and in-person. SQ will bring more consumers to APT's BNPL merchant base through the Cash App. As a result, SQ can reach new Cash App audiences in global geographies. Also, SQ can integrate commerce discovery from APT App into Cash App to drive engageme nt. Existing APT consumers will be able to receive the benefits of Cash App's ecosystem, including P2P, stock brokerage, bitcoin, Cash Card, Boost, taxes, and more.

SQ will enable APT's BNPL for SQ Sellers, supporting their growth through higher transaction sizes and conversion rates. As a result, this will strengthen APT's merchant base with millions of SQ Sellers and grow APT's presence with SMBs, attract new sellers to SQ with BNPL as an acquisition tool, and allow SQ to grow in upmarket and in new geographies together. SQ believes APT will be accretive to gross profit growth with a modest decrease in Adjusted EBITDA margins expected in the first year after completion of the transaction. SQ sees an opportunity to invest behind APT's strong unit economics and attractive growth synergies, including the opportunity to introduce offerings and drive incremental growth for sellers and increased engagement for Cash App customers.

### Transaction Terms

APT shareholders will receive a fixed exchange ratio of 0.375 shares of SQ Class A common stock for each APT ordinary share they hold on the record date. SQ may elect to pay 1% of the total consideration in cash. SQ will establish a secondary listing on the Australian Securities Exchange (ASX) to allow APT to trade shares via CHESS Depository Interests (CDIs) on the ASX. APT shareholders will elect to receive the scheme consideration in NYSE listed SQ Class A common stock or CDIs. Based on SQ's closing price of US$247.26 on July 30th, 2021, this represents an implied transaction price of approximately A$126.21 per APT share, a premium of approximately 30.6% to APT's latest closing price of A$96.66. After completing the transaction, APT shareholders will own about 18.5% of the combined company on a fully diluted basis. APT's Co-Founders and Co-CEOs will join SQ upon completing the transaction and help lead APT's respective merchant and consumer businesses as part of SQ's Seller and Cash App ecosystems. SQ will appoint one APT director as a member of the SQ Board following closing.

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