

Tracking Digital Payments: The Nasdaq CTA Global Digital Payments™ Index (WALLET™)

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Introduction: The History of Digital Payments

In today's world, physical money often seems to recede into the background, overshadowed by the convenience of digital transactions. The act of tapping a phone for a contactless payment has become second nature to millions across the world. The transformation from handling tangible cash to managing funds electronically via apps and online platforms has revolutionized financial interactions.

The journey of digital payments began long before the advent of smartphones and online banking. The origins trace back to the late 19th century with Western Union's introduction of electronic funds transfers via telegraph in the 1870s. This innovation set the stage for further advancements, such as the Federal Reserve's use of telegraphs in 1910 and American Express's launch of the first credit card in the 1950s, bringing instantaneous payments and introducing the concept of deferred payments¹.

The late 20th century marked a pivotal leap with the rise of electronic payments. The 1990s saw the emergence of the Internet and the first online payment systems, with First Virtual Holdings debuting in 1994. The introduction of PayPal in the early 2000s further transformed online transactions by enhancing security and convenience. Mobile payments emerged in the late 2000s with the reveal of smartphones utilizing near-field communication (NFC) technology to facilitate secure transactions via mediums such as Apple Pay, Google Wallet and Samsung Pay².

Digital payments have experienced significant growth in recent years, with an increasing number of consumers opting to use their smartphones for transactions. This shift in preference has been coupled with enhanced security measures, including biometric authentication methods such as fingerprint and facial recognition. These features have the goal of helping to ensure that only authorized users can complete transactions, adding an extra layer of protection to the mobile payments landscape³.

The future of digital payments is set for further development, guided by several emerging trends. Cryptocurrencies such as Bitcoin and Ethereum are gaining traction as accepted payment methods, offering improved security and privacy for transactions. Artificial intelligence (AI) and machine learning are also set to influence the digital payments evolution. These technologies are currently enhancing fraud

¹ <https://www.britannica.com/money/types-of-payment-systems>

² <https://www.britannica.com/money/types-of-payment-systems>

³ <https://www.britannica.com/money/types-of-payment-systems>

detection, a problem within the digital space, and personalizing consumer experiences. Finally, blockchain technology is likely to play a pivotal role in the future of digital payments. Blockchain technology is a decentralized and secure way to transfer value, making it ideal for digital payments⁴.

The evolution of digital payments has spearheaded the transformation of financial transactions from physical assets to online interactions. Future advancements of the industry, including the rise of cryptocurrencies, artificial intelligence and blockchain technology, are set to further enhance the convenience, security and efficiency of transactions. Understanding these developments as well as the current state of the field are crucial for navigating the evolving landscape and leveraging new opportunities within the space.

The Rise of A2A Payments

A notable trend within the digital payment space is the rise of account-to-account (A2A) payments, which are facilitated by peer-to-peer (P2P) systems such as PayPal. A2A payments involve direct transactions between parties, bypassing intermediaries like credit cards, offering greater convenience for customers and enhanced security through multi-factor authentication⁵. Businesses benefit from reduced costs and A2A payments are poised to become mainstream, with a projected CAGR of 14% from 2024 to 2027, driven by consumer preference for direct and efficient payment methods⁶.

Adopting A2A payments offers significant benefits for merchants, primarily through reduced acceptance costs. Traditional merchant discount rates (MDRs) for card transactions range from 2.0% to 3.5%, while A2A transactions may involve a fixed fee for \$0.40 to \$0.50 per API call, which is particularly advantageous for larger-ticket items. These savings can then be passed on to consumers through rewards and incentives⁷. Another benefit surrounding A2A payments is it can provide banks with a more competitive and standardized payment method while offering more options to consumers and merchants. Open banking data can enable banks to develop enhanced financial services and analytics. Consumers benefit from potentially lower costs and improved customer experiences⁸.

The surge in A2A payments has led to a significant rise in Authorized Push Payment (APP) fraud, where individuals are coerced into authorizing payments to fraudulent accounts. Fraudsters often pose as well-known businesses or government bodies to gain the victim's trust. APP fraud has recently surpassed card fraud and identity theft as the top global fraud threat. In the United States, the United Kingdom and India, APP fraud losses are expected to double by 2026, reaching \$5.25 billion (USD)⁹.

To combat this growing problem, several solutions are being implemented. One key measure is the wider adoption of Confirmation of Payee (CoP) policies. First introduced in 2020 by Pay.UK, CoP is an account name verification service that confirms account names before any payment is initiated. This system ensures that funds are sent directly to the intended account holder. Payment service providers using CoP can verify crucial reference data such as the account name and number, cross-referencing this information

⁴ <https://www.financemagnates.com/fintech/payments/the-evolution-of-digital-payments-and-e-commerce/>

⁵ <https://www.forbes.com/advisor/money-transfer/peer-to-peer-fraud-statistics-in-year/>

⁶ <https://www.statista.com/study/146515/a2a-account-to-account-payments/>

⁷ <https://www.mckinsey.com/industries/financial-services/our-insights/the-role-of-us-open-banking-in-catalyzing-the-adoption-of-a2a-payments>

⁸ <https://thepaymentsassociation.org/article/understanding-confirmation-of-payee-the-route-to-enhanced-security-in-payment-services/>

⁹ <https://risk.lexisnexis.com/insights-resources/infographic/payments-trends>

with payee account records to detect fraudulent activity. CoP significantly reduces the risk of fraud and misdirected payments¹⁰.

Additionally, in the United Kingdom, the Payment Systems Regulator (PSR), the body in charge of overseeing payment systems in the UK, implemented mandatory reimbursement rules effective October 7, 2024. These rules require all payment service providers to fully reimburse consumers who fall victim to APP fraud. These regulations are set to significantly improve customer protection in digital transactions and could serve as a model for other countries aiming to combat APP fraud¹¹.

Index Methodology Summary¹²

The Nasdaq CTA Global Digital Payments™ Index (WALLET™) was launched on November 15, 2021, at a base value of 1,000. The index is designed to track the performance of select companies, based on classification by the Consumer Technology Association (CTA), that are involved in the global digital payments landscape. The index is rebalanced quarterly in March, June, September and December with semi-annual reconstitution dates in March and September. All securities must have a minimum market cap of \$500 million (USD), a three-month average daily traded value of at least \$1 million (USD) and a minimum free float value of 20%.

WALLET is a modified free float market capitalization-weighted index. A Theme-Weighted Free Float Market Value is calculated for each Index Security as the theme-adjusted market capitalization multiplied by its free float. Securities' initial weights are calculated by dividing each Index Security's theme-adjusted free float market value by the aggregate theme-adjusted free float market value of all Index Securities. Initial weights of the indexes are further adjusted to meet the following criteria: 1) no security weight may exceed 6% 2) five index security weights may exceed 4.5% 3) no security weight can be below 0.3% 4) a tier 2 security's weight cannot exceed 2%.

Selection of constituents included in the index is decided by the CTA and 3rd party data and to be considered for inclusion, a security must be classified as a mobile payments company that falls within one of four categories: Card Networks, Infrastructure & Software, Processors, or Solutions.

- **Card Networks** are companies whose services include controlling where cards are accepted and facilitating transactions between card issuers and consumers.
- **Infrastructure & Software** companies provide hardware or software services that facilitate payments across several channels, including point-of-sale, mobile and online.

¹⁰ <https://thepaymentsassociation.org/article/understanding-confirmation-of-payee-the-route-to-enhanced-security-in-payment-services/>

¹¹ <https://www.skadden.com/insights/publications/2024/04/new-rules-to-tackle-authorized-push-payment-fraud>

¹² https://indexes.nasdaqomx.com/docs/Methodology_WALLET.pdf

- **Processors** are companies that handle both front-end and back-end transactions and processing across several channels, including credit cards, debit cards and point-of-sale payments. criteria
- **Solutions** are companies who provide products and services for accepting payments through various payment methods.

Inclusion Criteria

- Minimum market cap: \$500M
- Minimum three-month average daily traded value: \$1M
- Minimum free float: 20%
- Classified by the CTA as a mobile payments company

If a security falls into one of the above categories, it is then given a theme intensity score determined by the CTA measuring its perceived degree of involvement within the digital payments space. The theme intensity score ranges from 0-1. Only securities with a theme intensity score of 0.5 or greater are eligible for inclusion and classified as Tier 1 Securities. As of the Reconstitution Reference date, securities that are classified as Tier 1 may remain in the index if their theme intensity score is at least 0.45. The selection process is further refined as a maximum of 50 securities are selected based on the following steps 1) the top 45 securities with the highest theme intensity score are automatically selected for inclusion in the index 2) securities in the index as of the Reconstitution Reference date that are within the top 55 and have not been selected in Step 1 are added to the Index in rank order until the target security count has been reached 3) if, following step 2, the target security count has not been reached, securities ranked 46th-55th not in the index as of the Reconstitution Reference date are added to the index in rank order until the target of 50 securities has been reached. If the number of Tier 1 securities does not exceed 30, securities with a theme intensity score equal to or greater than 0.25 and up to 0.5 (“Tier 2 securities”) are added until the count of 30 is reached. “Tier 2 securities” are added to the index in order of theme adjusted market cap.

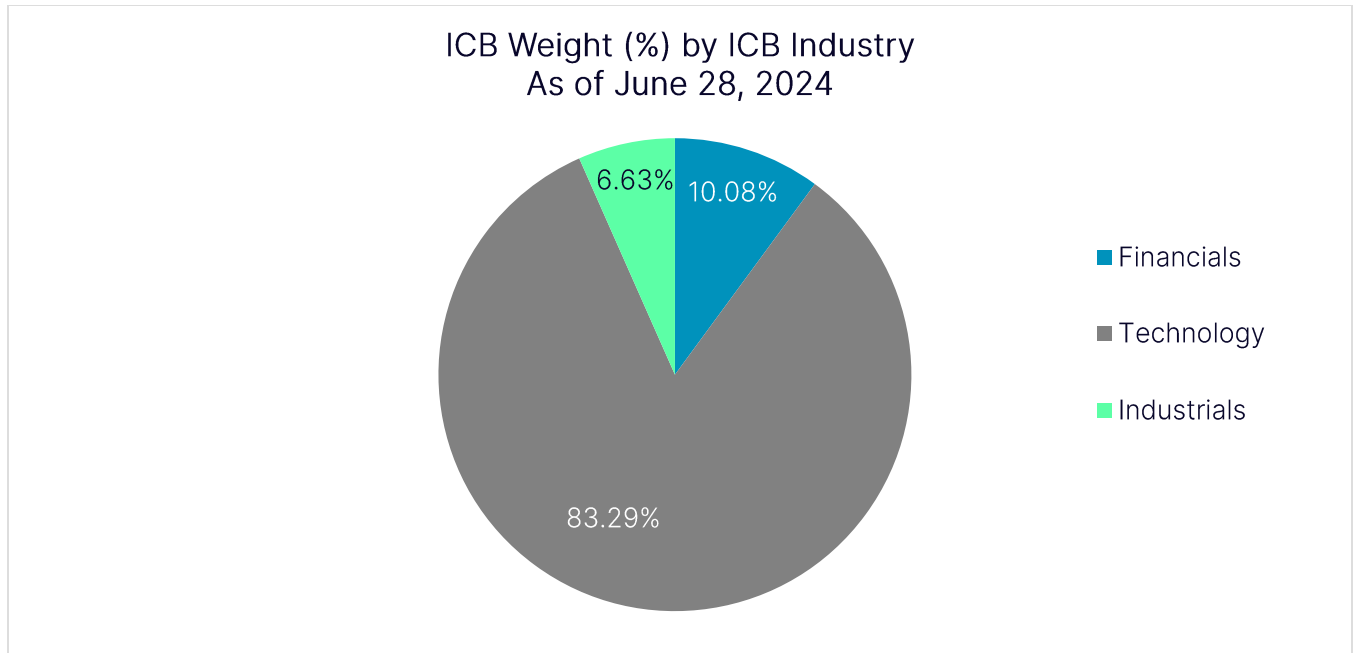
For more information regarding WALLET’s methodology, [click here](#).

M&A Activity

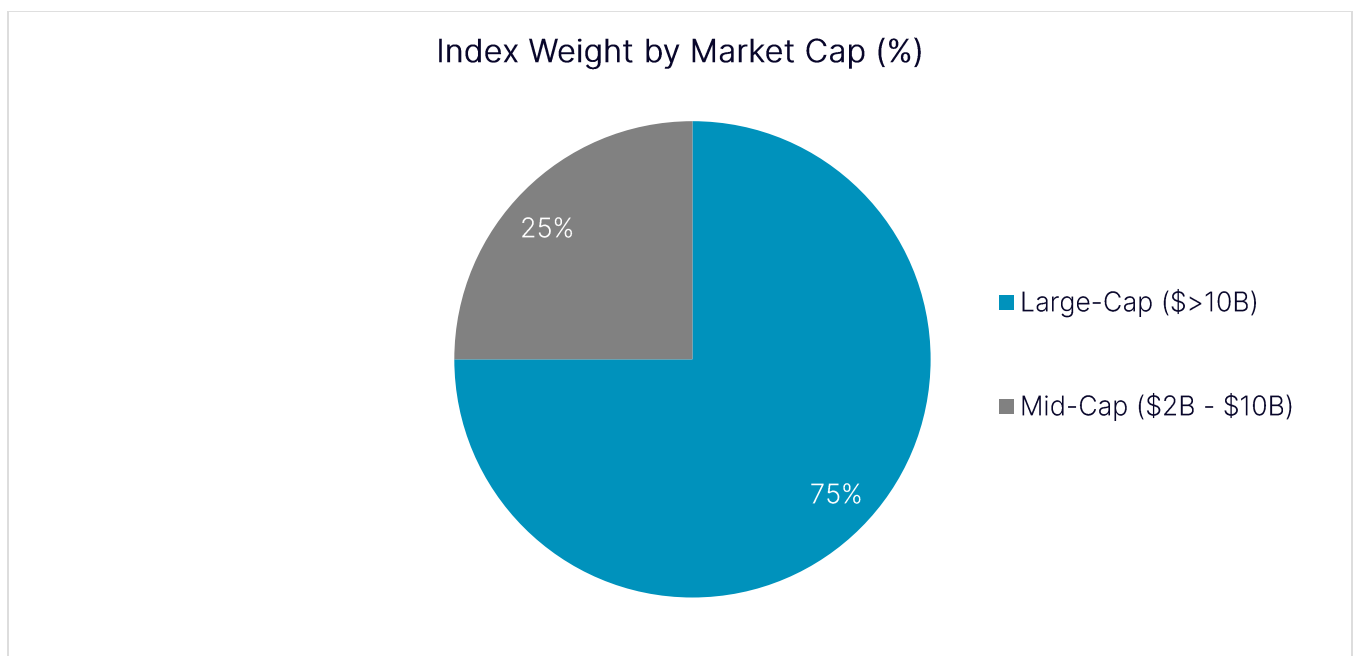
The digital payments industry accounted for 19 payment deals announced during Q1 2024, worth a total of \$36.6 billion (USD). During the quarter, the industry also experienced their largest disclosed deal with the \$35.3 billion (USD) acquisition of Discover Financial Services by Capital One Financial. This acquisition, announced February 19, 2024, is a strategic move to combine both companies’ strengths in banking and payments. Discover shareholders will receive a premium in Capital One shares, with the new company being 60% owned by Capital One shareholders and the other 40% by Discover shareholders. Richard Fairbank, CEO of Capital One, stated “Our acquisition of Discover is a singular opportunity to bring together two very successful companies with complementary capabilities and franchises, and to build a payments network that can compete with the largest payment networks and payment companies.” This merger aims to leverage Discover’s extensive client network with Capital One’s technology-driven banking expertise with the goal of sparking growth opportunities and delivering innovative product options within the digital payments space¹³.

¹³ <https://investor.capitalone.com/news-releases/news-release-details/capital-one-acquire-discover>

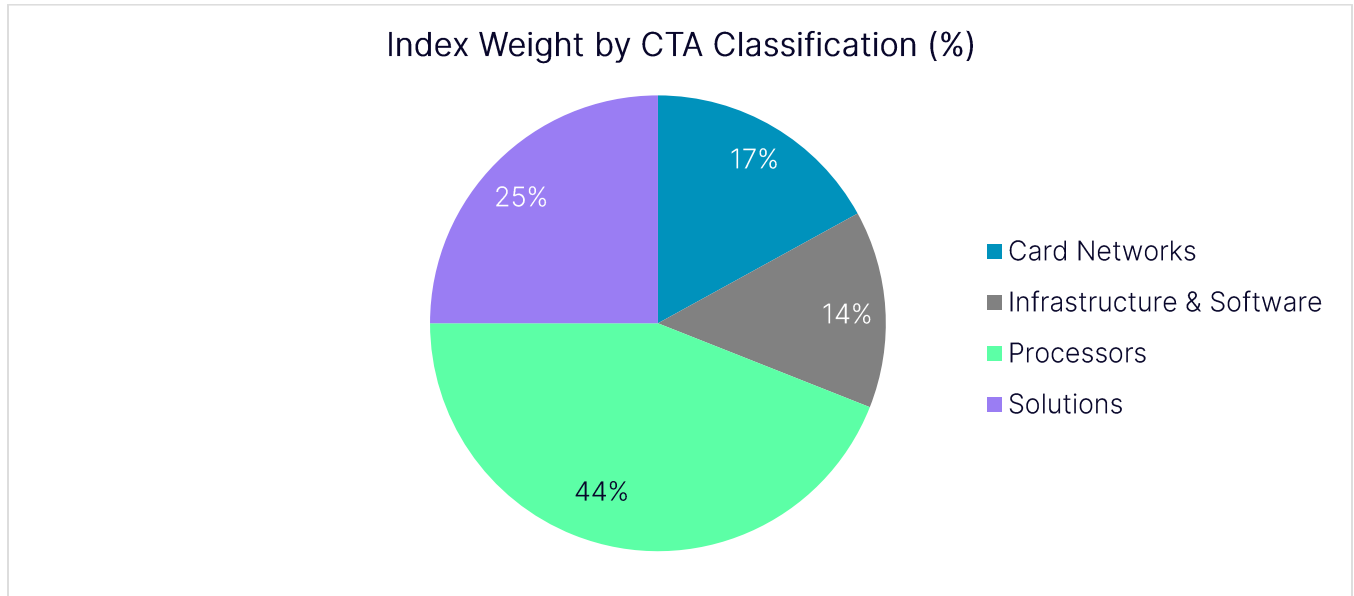
Index Composition



The Industry Classification Benchmark (ICB) is a classification methodology organizing every public company into one of 11 industries, 20 super sectors, 45 sectors and 173 subsectors. WALLET doesn't offer immense diversification in terms of the industries present within the index as only three are represented: Financials, Technology and Industrials. As of June 28, 2024, Technology is the most prominent industry, making up 83.29% of the index. Following Technology, Financials and Industrials comprise the remainder of the index making up 10.08% and 6.63% respectively.

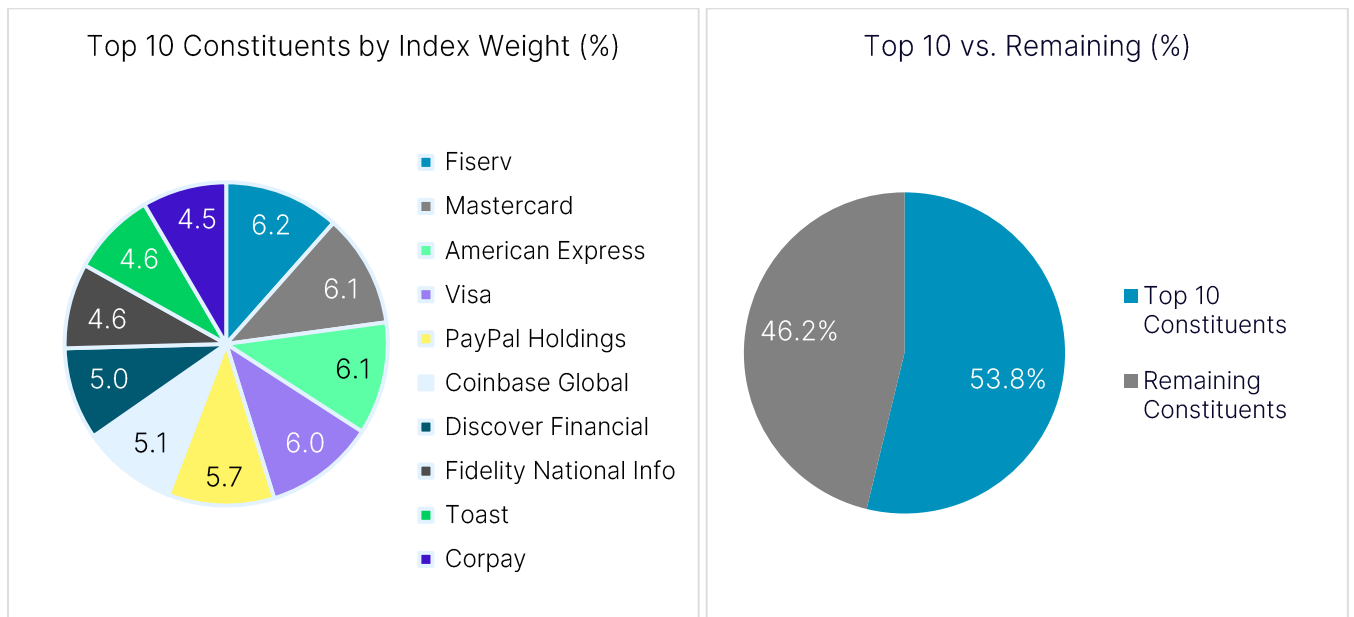


WALLET is a large-cap tilted index with about 75% of the index weight being contributed by constituents with a market cap of greater than \$10 billion (USD). The other quarter of the index weight is contributed by constituents with a market cap between \$2 billion and \$10 billion (USD). No companies with a market cap below \$2 billion (USD) are represented in the index.

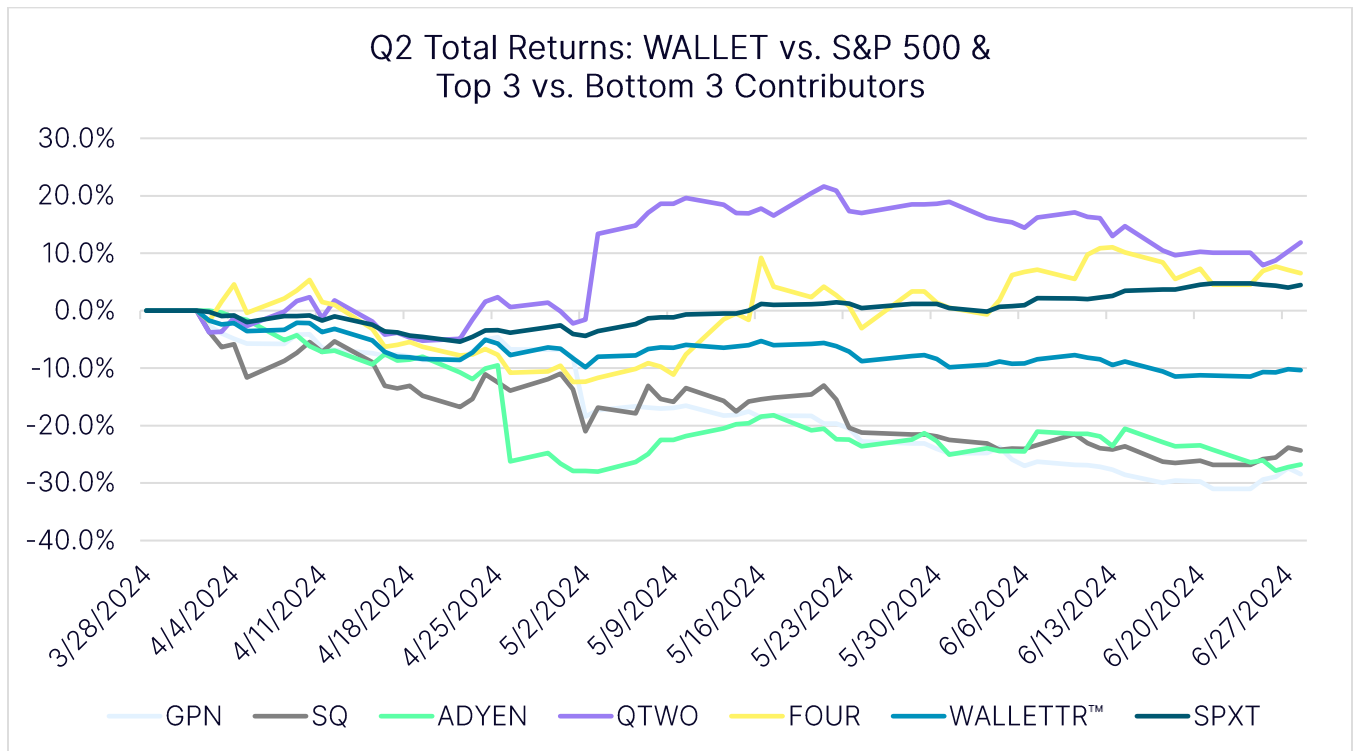


As stated in the index methodology, the CTA classifies digital payment companies within the index into four categories: Card Networks, Infrastructure & Software, Processors and Solutions. Processors is the dominant category making up almost half of the indexes weight (44%). Following closely behind is Solutions, Card Networks and finally Infrastructure & Software, respectively.

Top Constituents

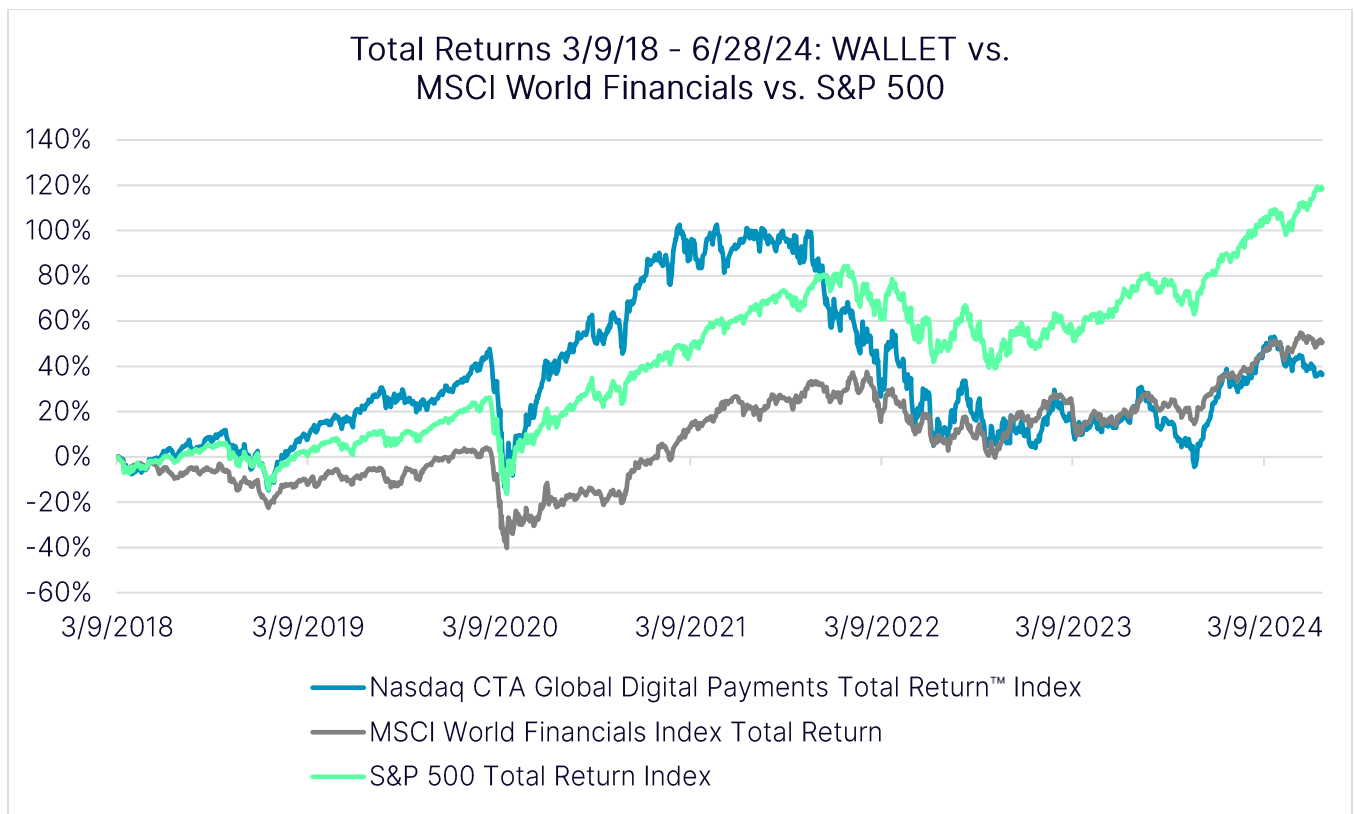


The top 10 highest weighted constituents make up 53.8% of the Nasdaq CTA Global Digital Payments Index. Fiserv, Inc. (NYSE: FI) is the constituent with the greatest weight within the WALLET index. Fiserv is a top provider of financial services technology solutions. Sunil Sachdev, head of Fintech at Fiserv stated, “People have high expectations for their digital experiences, wanting innovative and intuitive solutions. With consumer demands shifting, more financial institutions are bringing fintech into the fold and partnering with them to deliver the services customers want through their trusted banking relationship.” One reason Fiserv has soared above the rest is their intentional integration of cryptocurrency into their service offerings. About 61% of Gen Z and millennials stated they want their bank or credit union to allow them to hold cryptocurrency, a feature Fiserv has made available on their platform. The future of payment services is seeing a clear shift towards digital channels, which is why the majority of the top 10 highest weighted constituents offer an online or digitally integrated service within their offerings¹⁴.



The above chart reflects WALLET’s Q2 performance, tracking the total returns of the index. In Q2, WALLET was down 10.82%. This is a reversal of how the index performed in Q1, finishing the quarter up 11.96%. Year-to-date through June 28, 2024, WALLET is nearly unchanged, down 0.16% on a total return basis. This compares to a year-to-date gain of 10.50% for the MSCI World Financials Index.

¹⁴ <https://www.nasdaq.com/press-release/fiserv-research-shows-digital-wallet-use-surg-ing-fintechs-key-to-consumer-financial>



The above chart reflects WALLET’s total returns from March 9, 2018, to June 28, 2024, compared to the S&P 500 and MSCI World Financials Index.

Conclusion

In conclusion, the Nasdaq CTA Global Digital Payments Index (WALLET) acts as a benchmark for the digital payments space by tracking top companies across four distinct categories. By tracking trends, consumer behaviors, and technological shifts, WALLET provides essential insights for stakeholders looking to navigate and capitalize on the evolving digital payments landscape.

The ETFs that track this index include the Amplify Mobile Payments ETF (NYSE: IPAY) and the BetaShares Future of Payments ETF (Australia: IPAY).

Sources: Nasdaq Global Indexes, Bloomberg, FactSet

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