The Banker's toolkit n. 3.2 – Solving the intricacies of the payments industry

The world in the 21st century is increasingly growing more independent from cash transactions thanks to an incredibly dynamic payment industry, marked in recent years by rapid developments. The 1950s marked the invention and of the first credit card in the United States, in part fueled by war-recovery consumerism. Over the past decades, a complex payment system developed to assure the safety and efficiency of non-cash transactions, and in recent years, online payments. During the era of e-commerce, payment methods are evolving rapidly, and the industry is characterized by strong M&A activity and disruption brought by Fintech start-ups. To understand all the sub-industries of the payment sector, we must introduce the payment stack, a graph that maps all of the above mentioned.

The following are the main actors of the Payment industry: Payment facilitators, Acquiring Banks, Payment Processors, Card Networks, and Issuing banks.

1. **Issuing banks**: These companies emit credit or debit cards on the name of the customer and associate it with a financial account. They can either be brick-and-mortar banks like Citibank, UniCredit, Barclays, or, in recent years FinTech's like Revolut, Monzo, and Wise. The primary role of these companies is to manage the account of the customer and make sure that there are sufficient funds for the transaction to be concluded. Out of the total cost of the transaction, these financial companies charge fees to the merchant that vary between 115 to 250 basis points (one basis point is equal to 0.01%) according to the type of merchant or even the specific type of payment processed.

2. **Payment Processors:** Payment processors are the heavy lifters of the transaction, as their job is to facilitate the communication between the merchant, Card Networks and Issuing and Acquiring banks (merchant´s bank). These companies guarantee that the transaction obliges by the **Payment Card Industry Data Security Standard (PC DSS)**: they make sure that the entered data is correct, if

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miss-charges occur, they search for errors, and check for leaks that could lead to credit card fraud. Payment processors have variable markup fees, which differ based on a pricing model, and can be negotiated. They also charge fixed fees that usually are between USD 0.01 and USD 0.10 per transaction. This segment of the industry has been prone to consolidation in recent years. In the Americas, Fiserv merged with First Data in 2019 and now processes around 45% of all card transactions in the U.S, which amount to more than USD 7tn.

Nexi: In Europe, one of the most important players is Nexi, an Italian company. With a latest market cap of EUR 13.9bn, Nexi serves as the largest payment processor based in Europe. Consistent with the industry characteristics, the growth of Nexi is driven heavily by M&A activity. After going public in April 2019, Nexi carried out three sizable M&A deals within 3 years: the EUR 1bn debt-financed acquisition of the merchant acquiring business of Intesa Sanpaolo completed in June 2020, the EUR 7.8bn stock-for-stock merger with Nordic payment giant Nets finalized in June 2020, and the EUR 4.6bn all-share merger with its crosstown fintech rival SIA concluded in December 2021. These transactions have driven Nexi's revenue from EUR 9.8bn in 2019 to EUR 30.7bn in 2021, and EBITDA from EUR 0.5bn to EUR 1.4bn, with more synergies to come in the future. Accordingly, Nexi's EV has risen from EUR 8.4bn in 2019 to EUR 20bn at the end of 2021, leading to an EV/EBITDA multiple in line with the sector average. The rationale for the frequent M&A activities in the payment sector rests with its B2B business model: Acquiring banks prefer to maintain a stable relationship with the payment processors as the replacement of equipment and transformation of IT systems will cost considerable time and money. So, it's far easier to purchase these relationships than to build them from scratch.

3. **Card Networks:** Card networks are the segment of the industry with the most visibility, as their names appear on every credit and debit card. These companies are the ones that build and own the virtual payment infrastructure, and in recent years also provide the payment gateway, a system that encrypts the card information, while it is in transit. Visa, Mastercard, American Express, and Discover account for almost 100% of the Western world market. As of 2019, UnionPay, the biggest Chinese player, accounts for 19,8% of the world transactions (mainly in China), and in the context of the exodus of western companies, is set to replace Visa and Mastercard in Russia. As they process every transaction that goes by, these companies generate revenues by charging a set transaction fee which is usually around 15BPS, but higher for American Express which runs a slightly different business model from its peers.

   Visa: Visa is the largest card network company in the world by market share, as it accounts for 42.6% of all global general-purpose card purchases and had in FY2021 net revenues of USD 24.1bn, 10% up from the FY2020. The company has a market cap of USD 490bn as of March 2022.

4. **Acquiring banks**: These are the banks where the merchant has its account. They receive funds from the Issuing Bank if the transaction has been approved by the Payment Processors; usually the transaction takes one day. Smaller Acquiring Banks can partner with Payment Processors to offer an integrated **Point of Sale (POS)** device to the merchant, charging the merchant a singular fee, while large banks can offer their own payment processing services to their clients.

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5. **Payment Facilitators:** Payment facilitators are service providers that aid merchants to accept card payments. A payment facilitator partners with an Acquiring bank and applies for a merchant ID with the card networks. Once assigned the merchant ID **(MID)** the payment facilitator becomes one big merchant that then can sign other business under its umbrella and process their transactions, provide support and service. These companies came into place to assure that small businesses can enter the payment ecosystem and get better transaction fees. Additionally, they generate insightful reporting, help manage disputes, and send funding instructions to ensure sub-merchants get their earnings from each day. Payment Facilitators usually charge between 50-100bps per transaction. This type of financial providers is new to the market, as they emerged in the early 2010s, and are dominated by Bay area companies, the biggest one of them being Stripe, a private Payment facilitator with a market capitalization of USD 80bn. Other important players are Block, Braintree, and Finix.

   Block: Block is the largest public listed Payment Facilitator with a market capitalization of USD 51bn and with revenues of USD 17.6bn in FY2021. Changing its name from Square to Block in December 2021, the company has been involved in recent years in M&A activities, acquiring Cash App, Afterpay, Tidal and TBD. This extends the spectrum of activities, with Block now being involved in the "Buy-Now-Pay-Later" industry, Music streaming, and Cryptocurrency trading. Besides Block, all the other players are private companies, or owned by other players in the value chain: Braintree was acquired by PayPal in 2013 (we will develop more on PayPal further down the article)

Industry Outlook and Trends

The outlook of the payment ecosystem is strongly correlated with the belief in a cashless society. We have identified a few macro-trends that will have a strong impact on the growth of the payment industry in the future: the availability of credit and debit cards, security of transactions, and easiness to access the payment ecosystem.

Concerning the **availability of payment cards**, in developed areas like Europe the payment card per capita value stands at 1.6x, with a total value of card transactions in 2021 of EUR 78.6tn, an 8.7% increase to the previous year. The growth is mainly generated by an increase in digitalization due to Covid-19 sanitary related issues, the development of middle-class consumers in Eastern European countries, and cash payments being allowed only up to an amount of 3000 euros. Saturated markets like Europe and the U.S are not the real driver of the cashless transition, as most of the transactions in these areas are already electronic, with emerging economies being the real source of growth for the industry in the coming years. As an example, in India there are only 900mn cards in use to a population of more than 1.4bn, with most of them being debit cards, and concentrated in Tier 1 cities. Similar situations are encountered in Africa, South-East Asia, and Latin America, leaving room for strong growth in emerging markets. Thus, the market of non-cash transactions is projected to grow to USD 1tn by 2023 at a worldwide CAGR of 12,7%, with emerging markets growing at 21,6% per year. This transition is also fueled in part by Fintech disruptors, new-age banks, and OEMs that are offering card issuance, mobile payment solutions, and top-notch interfaces and customer services.

Improvements in **security technology** are another driver of the payment industry in the next few years. Card networks, Financial Institutions, and Payment processors have implemented various solutions such as EMV

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technology, 3-D Secure services, tokenization, biometric, and end-to-end encryption. Biometric securities are gaining popularity in the digital payment sector, facilitating the payment process for the customer, and reducing the risk of online card fraud, which in turn increases the demand of merchants to adopt cashless payments and online sales.

As specified above, FinTech's and neo-banks will have a general positive effect on the growth of the industry and will allow more merchants to have better access to the payment ecosystem and enable more customers to use digital payment solutions. One of the most visible threats to traditional players is PayPal, a company valued at around USD 141bn as of March 2022, and one of the biggest payments providers in the online world. PayPal is offering online payment solutions that allow merchants and customers to realize transactions without the need of Card Networks, and Payment processors, as the company has its in-house payment infrastructure, validation and security software's put in place. Their payment volume stands at USD 1.2tn and the company has more than 426mn users worldwide. By comparison, the total value of card payments in the European Union in 2021 was estimated at EUR 78.5tn. We believe that for the moment, FinTech's do not necessarily pose a threat to the payment industry, but instead will complement different players in the sector and focus on specific niches. For PayPal to work, there still needs to be an Issuing and Acquiring Bank to deposit money, while, on the other hand, for neo-banks like Revolut, Card Networks like Visa and Mastercard are still essential to process the payment made with their cards. Another characteristic of the payment industry is the series of consolidations that have taken place in recent years, throughout the value chain. Some companies are even targeting financial companies that are outside of the traditional scope of operations, with the goal of vertically integrating different functions.

Multiples comparison: a general guide

As mentioned in our last article: How to Value a Fintech Company, multiples are essentially the reflections of companies' fundamentals. In other words, if we assume the market to be efficient, the differences in multiples of companies can be generally justified by diverse financial metrics. Among all the multiples, P/E and EV/EBITDA are the most widely used, and they are indeed the reference multiples for the fintech industry as well. Thus, in this article they will have center stage. Whenever we are comparing companies regarding these two multiples, the general principle we must bear in mind is to always check growth, risk, and reinvestment needs. In the following article, we will apply this rule to the multiples comparison within several sub-sectors of the payment industry to make a demonstration.

Let's start with the card network sub-sector. As mentioned above, the major players in this sector are Visa, Mastercard, American Express and Discover. Mastercard's forward P/E ratio of 34.65x is leading the league table with Visa's 31.15x on its heels, while American Express and Discover lag far behind, with metrics of 19.25x and 7.93x respectively. Does that mean Visa and Mastercard are overvalued while American Express and Discover are undervalued? Not necessarily. We will examine their growth, risk, and cash flow characteristics one by one.

Unlike Visa and Mastercard as pure card network players, American Express and Discover are primarily credit card issuers. Their card networks are mainly designed for supporting the transactions within their own credit card systems. In other words, they are more of traditional retail banks, exposed to both interest risks and default risks.

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As a reminder, this character also makes EV/EBITDA multiple unapplicable to them. As debt are raw materials for banks, we can't distinguish interest expenses between "cost of debt" and "cost of goods sold", resulting in EBITDA to be meaningless. By contrast, Visa and Mastercard are immune from all these risks and only dependent on the volume of transactions occurring on its network.

Besides, Visa and Mastercard also enjoy a high growth potential, thanks to their open card networks. For American Express and Discover, they have to issue more credit cards by themselves to boost the transactions within their card networks, while there are thousands of banks assuming this onerous work for Visa and Mastercard. According to Barron's, Visa's EPS is expected to grow from USD 5.8 in 2021 to USD 9.82 in 2024 and Mastercard's EPS is expected to grow from USD 8.28 to USD 15.62, representing a CAGR of 19.19% and 23.56% respectively. For contrast, the metrics for American Express and Discover are 10.16% and -3.37% respectively.

In terms of reinvestment needs, Visa and Mastercard also enjoy advantages versus American Express and Discover, because the latters also issue their own cards. As credit institutions, credit card issuers are subject to capital requirement regulations. In other words, there is a cap on the ratio of their capital to the loan granted. Thus, to comply with the capital requirement regulation, American Express and Discover have to reinvest at least a mandatory portion of their earnings back to their capital unless they don't want to expand their business. As a contrast, these reinvestment needs are not necessary for Visa and Mastercard at all. Besides, the marginal cost to acquire a new customer for an open system (Visa and Mastercard) is far less than a closed system (American Express and Discover). If nothing else, at least open systems don't have to bother all the cost relating to the issuance of new credit cards, as these costs are assumed by partner banks. Since Visa and Mastercard don't have as much reinvestment needs, they can reserve a larger portion of earnings as free cash flows, which are key drivers of valuations. We can examine our theory empirically. According to YCharts, Visa's ROE has ranged between 35% and 40% during the past three years while the metric fluctuated sharply from 15% to 33% for American Express. As EPS growth rate is the product of ROE and reinvestment rate, a higher ROE means a lower reinvestment need to realize the same EPS growth. All in all, with lower risks, higher growth potentials and healthier free cash flows, the higher multiples for Visa and Mastercard are not groundless.

Compared to the card network sector, the multiples in the payment processing sector are much more consistent. The forward EV/EBITDA multiples for the sector fluctuate around 13x, while the forward P/E multiples oscillate around 15x, with Nexi an eye-catching outlier. Nexi's extraordinarily high P/E ratio is the reflection of the market's expectation on its to-be-realized M&A synergies. According to Barron's, Nexi's EPS is expected to grow at a CAGR of 23% over the next three years, outpacing the average anticipant CAGR of 13% of its competitors. Besides, it is worth noting that the historical or trailing multiples will be distorted by an M&A announcement if the multiples are obtained from financial databases. Considering the fact that the deal will be reflected in the stock prices immediately while the earnings or EBITDAs will not be consolidated on the financial reports until the deals are finalized. Under the circumstances, calculating multiples manually or simply adopting forward multiples is recommended. This case works as a perfect example of how M&A activities would disrupt the multiples, reminding us to be cautious when comparing multiples in an industry with frequent M&A deals.

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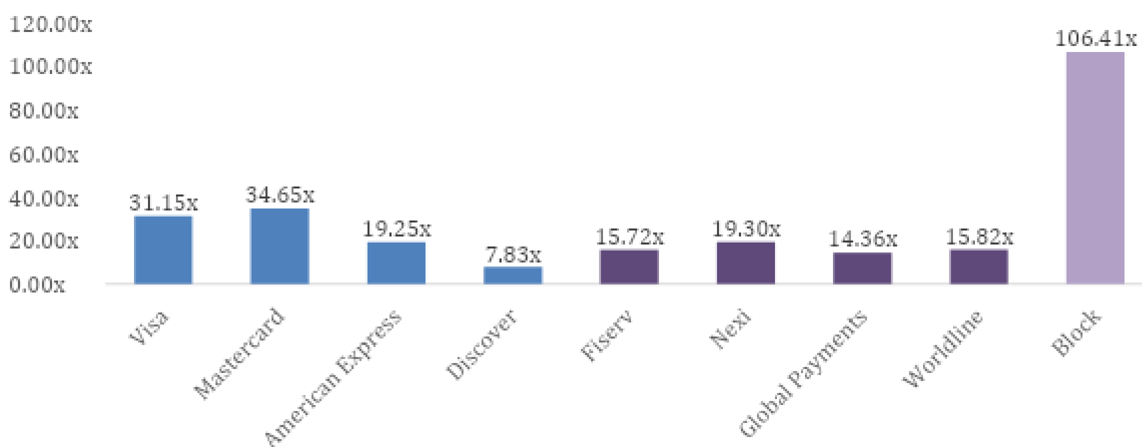
The payment facilitator, Block, serves as another perfect example of the failure of multiple valuation. With a forward EV/EBITDA ratio of 95.07x and a forward P/E ratio of 106.41x, Block is a real monster if measured by multiples. This leads to another drawback of multiple valuation, standing as the incapability of valuing brand new and fast-growing business, as the value of this kind of business lies in the distant future while multiples only take into account the financial metrics within the trailing twelve months or forward one to two years. Even though Block is a mature player in the payment processor sector, its "cash app" business, instead, is the main driver of its valuation. The explosive growth of "cash app" didn't come into play until the outbreak of Covid-19, with its revenue expanding fivefold to account for 63% of Block's total revenue over mere two years. The normal multiples are severely distorted under the circumstances. Comparing the forward five-year multiples, if a good number of analysts do estimate earnings/EBITDAs over a long time span, would seem a solution, but the accountability of the result is inevitably discounted. In fact, as cash app primarily serves as a platform for P2P transfer and financial investment, Block is no longer an appropriate comparable for payment processor players. Figuring out the essence of a business and examining the comparability of a company should always come first in any multiple analysis.



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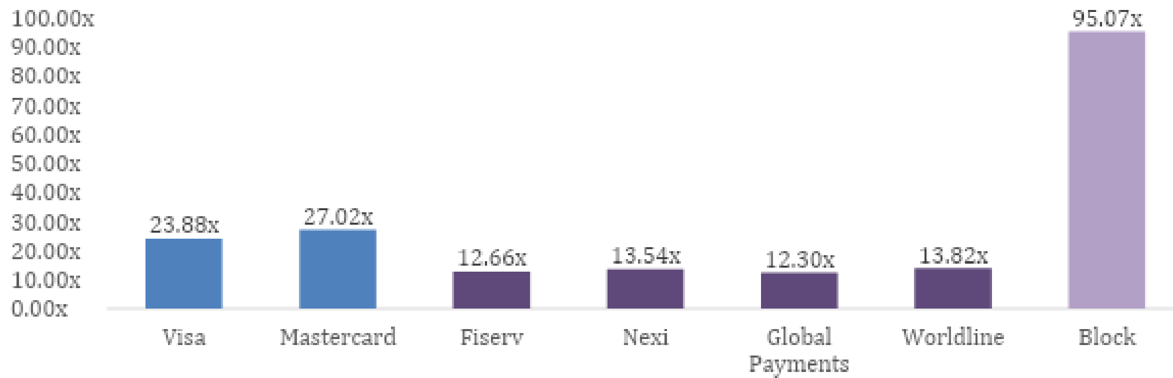

TAGS: Payments, Visa, Mastercard, Fiserv, Nexi, Sia, Intesa Sanpaolo, Worldsline, Block, Interchange fees, Payment processor, Acquiring bank, Issuing bank, Paypal, Multiples, Banker's toolkit

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