



# Theme assessment

## Digital payments

The global digitisation of payment transactions is creating investment opportunities

Customer version | Swiss edition

# Summary

The global expansion of telecommunications and Internet infrastructure has been the catalyst for the digitisation of money transactions. Firstly, this has the following implications for people in developing countries: they can carry out financial transactions and gain access to a comprehensive range of financial products and services – keyword: “financial inclusion”.

“Financial Inclusion” triggers a fundamental change in living conditions for people in developing countries. They get access to social services, investment opportunities or financial institutions. Financial inclusion also addresses Sustainable Development Goals (SDGs) Nos. 1, 8 and 9. The UN pays particular attention to this topic through the special study “Igniting SDG Progress Through Financial Inclusion”.

Secondly, the digitisation of payment transactions also covers an increasing number of population groups in developed countries. The primary drivers are:

- Politics: Countries have a huge interest in state-of-the-art payment transactions and are encouraging digitisation while maintaining sovereignty over the means of payment.
- Innovation and convenience: Cashless transactions are not only desired by countries. Consumers prefer digital payment methods as they are usually more efficient than conventional ones. So it is attractive for companies to innovate digital payment models. Conclusion: The pool of consumers is steadily growing, which means new money is continuously pouring into this area.

But digital payments will only thrive if payments can be transmitted securely. So the assessment also covers cybersecurity aspects. Cryptocurrencies are new to the digital payments sector. Some of them are competing with fiat currencies. Due to high energy consumption and consequently a low sustainability contribution, we are excluding cryptocurrencies from this thematic assessment.

The analysis reached the following main findings:

- Drivers at a global, national and individual level are leading to changes in the payments process and opening up exciting prospects for growth.
- Strong levels of innovation in the digital payments sector is encouraging financial inclusion. This is helping to raise the global revenue pool while boosting M&A and IPO activities.
- Traditional banking institutions are playing a key role in payment transactions. But their value creation primarily comprises the interest rate differential business and other financial services affecting the balance sheet.
- The most economically promising market segments are the growth of new markets such as online retail (sales fees/dealer loans) and catering for previously underserved markets.
- Sectors and companies which are benefiting from the digital payments transformation are involved in the fields of data processing & outsourced services or systems software. These also include certain financials, such as selected full-service banks from developing countries, and specialists in the consumer credit sector.

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Regions: Global

Sectors: All

Relevant SDGs: 1 No poverty  
8 Humane work and economic growth  
9 Industry, innovation and infrastructure

# 1. Relevant SDGs for digital payments

The 17 SDGs lie at the heart of the 2030 Agenda. Financial infrastructure with the sub-topic digital payments & finance encompasses the whole spectrum of sustainability topics which take sustainable development into account. According to the UN study “Igniting SDG Progress through Digital Financial Inclusion”, the digitisation of financial transactions simplifies the achievement of SDG objectives:

Digitisation of financial transactions primarily focuses on the following SDG objectives:

## 1 No poverty

Digital financial services are cheaper than their conventional counterparts. For economically weak households, there are digital solutions for existential challenges in some cases.

| Challenges   | Solutions   |
|--|---|
| Sudden illness or natural disasters put households’ assets at risk and can push families into poverty.   | Digital current accounts help families to save. In turn, deposited savings can be used to deal with unforeseen events.  |
| More than 100 million adults worldwide are in receipt of state transfers, such as wages or pensions in cash. Cash transfers are costly and more vulnerable to fraud or theft.    | Digital payments make it possible for government transfers, wages or pensions to reach people who require them in the most efficient and secure way.                              |
| Around 40% of the poorest households in the world do not have a current account, making saving more difficult. Moreover, those affected are denied access to financial services. | Digital financial services provide the basis for business models which open up access to low-cost financial services and can thus potentially reach a further 1.6 billion people. |

Source: Igniting SDG Progress Through Financial Inclusion; United Nations Secretary General Special Advocate, Sept. 2018

## 8 Decent work and economic growth

Digital financial services are helping smaller businesses to create around 95 million new jobs by 2025.

| Challenges   | Solutions   |
|--|---|
| 230 million adults who do not have a bank account still receive their wages and salaries in the private sector in cash, excluding them from the many advantages of digital financial services.                                 | The digitisation of salary and trade payments enables companies to offer their employees and business partners a direct way to financially integrate and thus enhance economic opportunities and material resilience. |
| Micro, small and medium-sized enterprises (MSMEs) have high growth potential. In some cases, this cannot be realised as MSMEs are denied access to loans. The reasons for this include a lack of credit history or collateral. | When MSMEs digitise their payment transactions, they generate data which is useful for credit rating checks.  |
| According to the “Igniting SDG Progress Through Financial Inclusion” study, more than half of the payments made and accepted by retail MSMEs were made in cash or by cheque. This translates into higher costs for MSMEs.      | Digital financial services make it possible for MSMEs to reduce the costs of money transactions and improve access to consumer financing.   |

Source: Igniting SDG Progress Through Financial Inclusion; United Nations Secretary General Special Advocate, Sept. 2018

## 9 Industry, innovation and infrastructure

Many MSMEs in emerging countries need credit facilities so they can expand further. Digital financial services help MSMEs to achieve more growth.

| Challenges   | Solutions  |
|--|--|
| Micro, small and medium-sized enterprises (MSMEs) in emerging countries are struggling to access finance, affecting their growth potential.                      | Digital financial services can help MSMEs gain better access to finance.   |
| Cash payments to suppliers and dealers are sometimes costly. In some emerging markets, these amount to up to 20% of annual company turnover.                     | The digitisation of payment transactions in the supply chain can lead to significant efficiency improvements and higher revenues for MSMEs.  |
| Cash payments are usually not traceable, making the process of fighting fraud, theft and verifying that payments are complete costly and complex for businesses. | The digitisation of payment transactions can help companies avoid unequal wage payments in factories, ensure compliance with labour standards and significantly reduce fraud in supply chains. |

Source: Igniting SDG Progress Through Financial Inclusion; United Nations Secretary General Special Advocate, Sept. 2018



## 2. The digital transformation of payment transactions

Fintech is a collective term for financial services which are improved through technological innovations. Fintech is generally divided into several sub-sectors. Depending on the definition, at least five can be identified: digital payments, neobanking, alternative financing, alternative lending and digital investments. This analysis is limited to the development of the digital payments sub-sector and the question of how it increasingly influences and complements payment transactions in general.

Whereas payments used to be tangible in the literal sense of the word (payments by gold, and large amounts of paper money), nowadays most transfers are processed electronically. But the technological processing of a digital payment is significantly more complex compared with a cash payment. Services range from handling financial transactions, security checks and financing options through to fraud protection and compliance.

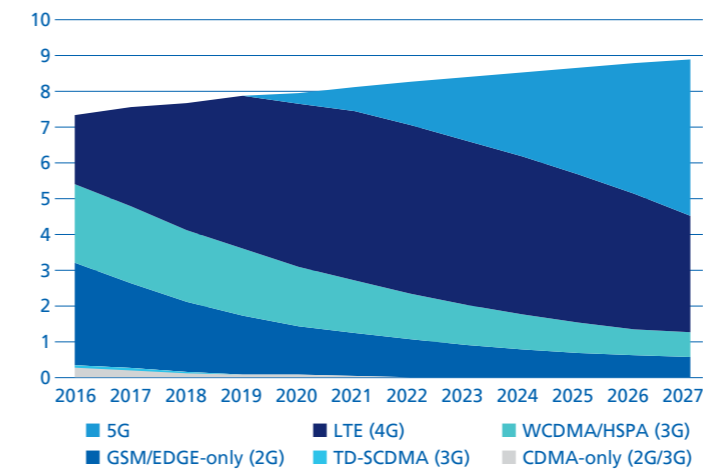
Besides processing, new aspects and developments in the payment sector will be added to the increasing popularity of new payment methods in the future, and this will provide the market with fresh impetus:

1. Payments/payments processing are becoming increasingly global: Transfers between countries used to be cumbersome and time-consuming. The payments industry is making increasing progress in this area.
2. Artificial Intelligence (AI) and Machine Learning (ML): The use of AI and ML by payment services companies is helping to discover and better understand customer patterns and shopping behaviour.
3. Payments contain information which is an important source of needs-based advertising.
4. Consumers often select the easiest way to make a payment.
5. Many large tech companies are developing their own payments systems or already use them, including Apple Pay, Amazon Pay and Google Pay. A separate payments system can certainly be lucrative, as the longer customers spend in the large company's digital ecosystem, the greater the chance that they will consume even more products and services.
6. Long dwell times on smartphones facilitate online shopping. Social media apps (Instagram, Facebook, Ebay, Zalando, etc.) often integrate a "buy button" for direct purchases.

### 2.1. Implications of modern technology and telecommunications infrastructure on payments methods

The implementation of digital payment methods requires specific technological equipment in broad sections of the population. One important driver here is the use of smartphones. According to the Ericsson Mobility Report published in November 2021, 8.1 billion mobile subscriptions have been taken out to date. Most subscribers use the fourth generation of the LTE 4G mobile communications standard. In 2027, the plan is to have 8.9 billion subscriptions. Half will then use the 5G generation of mobile technology.

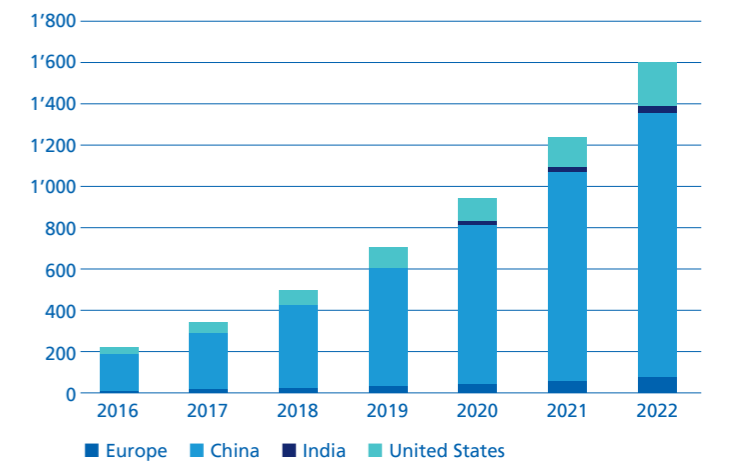
**Figure 1:** Number of mobile phone subscriptions based on mobile phone standards



Source: Ericsson Mobility Report (Nov. 2021).

The high penetration rate of mobile subscriptions worldwide is accompanied by increasing mobile payment transactions.

**Figure 2:** Volume of mobile payment transactions in USD billion



Source: Paymentscardsandmobile.com (2019).

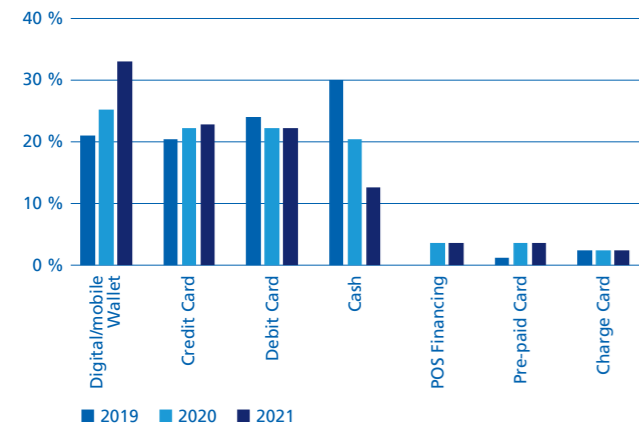


### 3. Analysis of payment methods – digital is on the rise

Digital payment methods are increasingly displacing cash transactions. However, the use of these methods varies and there are regional differences.

Figure 3 shows that digital/mobile wallets are the most popular payment method globally, followed by credit and debit cards. Although cash as a payment method is still important, it is becoming less so.

**Figure 3:**  
Global preferred payment method



Source: Statista (2022) and Global Payments Report (2021).

There are significant regional differences in payment preferences. In North America, credit cards are most commonly used for point-of-sale (POS) purchases (2021, 40% of all cases), while in the Middle East and Africa (MEA), 44% are paid with cash.

**Figure 4:**  
Payment methods by region, 2021

| 2021                    | Europe | Asia-Pac | MEA | North America | South America |
|-------------------------|--------|----------|-----|---------------|---------------|
| Debit card              | 40%    | 15%      | 12% | 30%           | 23%           |
| Cash                    | 26%    | 16%      | 44% | 11%           | 36%           |
| Credit card/charge      | 19%    | 19%      | 20% | 40%           | 28%           |
| Digital/mobile wallet   | 8%     | 44%      | 12% | 10%           | 8%            |
| Retailer/bank financing | 4%     | 4%       | 6%  | 4%            | 4%            |
| Buy now, pay later      | 2%     | 2%       | 1%  | 1%            | 0%            |
| Prepaid card            | 2%     | 2%       | 5%  | 4%            | 1%            |

Source: The Global Payments Report (2022).

The outlook for payments methods up until 2025 is for a global/regional change. Cash is expected to continue to account for a significant share of total payments in 2025, but its relevance is trending downwards worldwide. The largest declines in cash transactions are anticipated in South America, the Middle East/Africa and Europe.

**Figure 5:**  
Payment methods by region by 2025

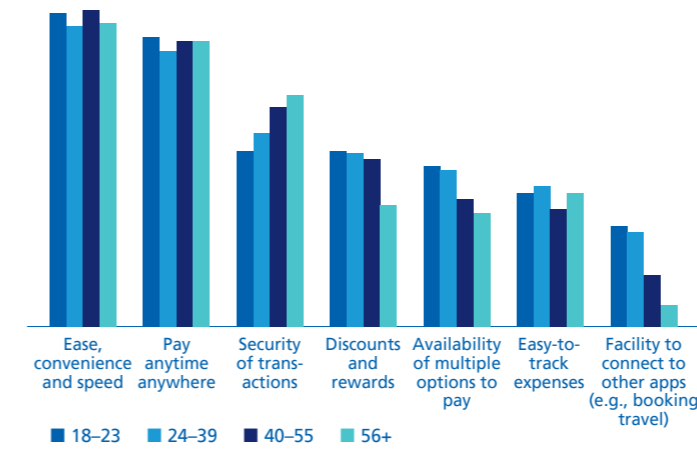
| 2021                    | Europe | Asia-Pac | MEA | North America | South America |
|-------------------------|--------|----------|-----|---------------|---------------|
| Debit card              | 38%    | 14%      | 14% | 34%           | 25%           |
| Cash                    | 17%    | 8%       | 31% | 6%            | 24%           |
| Credit card/charge      | 23%    | 17%      | 22% | 36%           | 32%           |
| Digital/mobile wallet   | 15%    | 56%      | 21% | 15%           | 15%           |
| Retailer/bank financing | 4%     | 3%       | 6%  | 4%            | 4%            |
| Buy now, pay later      | 3%     | 1%       | 1%  | 2%            | 1%            |
| Prepaid card            | 2%     | 1%       | 4%  | 4%            | 1%            |

Source: The Global Payments Report (2022).

Meanwhile “digital/mobile wallets” are gaining in importance everywhere, according to forecasts with the use of debit cards increasing in particular in MEA, North and South America, while credit cards are popular in Europe, MEA and South America. What's more, in regions such as North America, debit cards are likely to replace credit cards, so that the net effect of plastic card use will remain neutral there.

Cap Gemini’s research reveals the most important reasons why digital payment methods are increasingly preferred. These are a whole series of factors that either individually or in combination result in consumers changing their payment practices (see Figure 6).

**Figure 6:**  
Motifs, digital wallets and QR codes



Source: Cap Gemini (2020). Report, p. 26

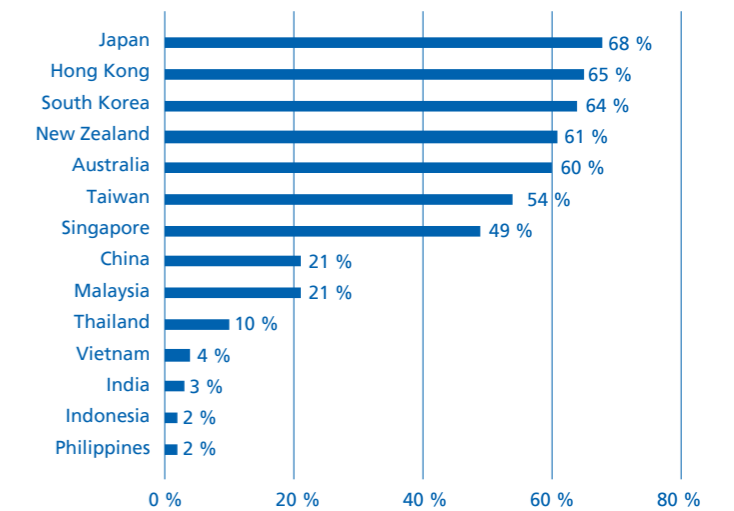
In spite of differences between age groups, all groups reported the following main reasons for the increasing use of digital means of payment: 1. Convenience, 2. Pay anywhere, 3. Transaction security and 4. Discounts and bonus systems.

#### 3.1. Credit and debit card features and trends

Credit and debit cards are most frequently used at a POS. Credit card issuers promote the use of cards in a variety of ways including through discounts in the form of sales commission (cashbacks), loyalty discounts and exclusive member offers. The high prevalence of credit cards and associated market power also generates significant commission income for credit card providers on sales revenue.

Credit card penetration is severely underdeveloped in developing countries compared with developed countries, as Figure 7 illustrates.

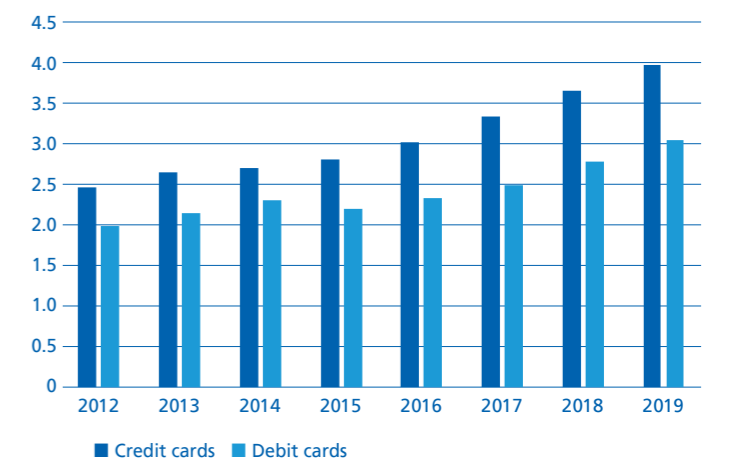
**Figure 7:**  
Credit card distribution, Asia Pacific (2021)



Source: PPRO Group (2021).

Transaction volumes with credit and debit cards vary greatly depending on a country's geography and development level. But even in an advanced market such as the USA, they have steadily increased in recent years.

**Figure 8:**  
Transaction volume of credit and debit cards in USD trillion, USA 2012–19



Source: Statista (2019).



## 4. Global payments revenue pool

Revenue sharing and fees in favour of counterparties involved in cashless payments, such as banks, fintechs and network operators, are the real drivers of the spread of plastic money (credit and debit cards) and, more recently, digital wallets, which has been expanding over decades.

The example of American Express (AMEXCO) is proof that this is a lucrative business: the fully integrated payments network operator generates more than 60% of its revenue from commission income from merchants, with the remainder evenly distributed between interest income and card fees.

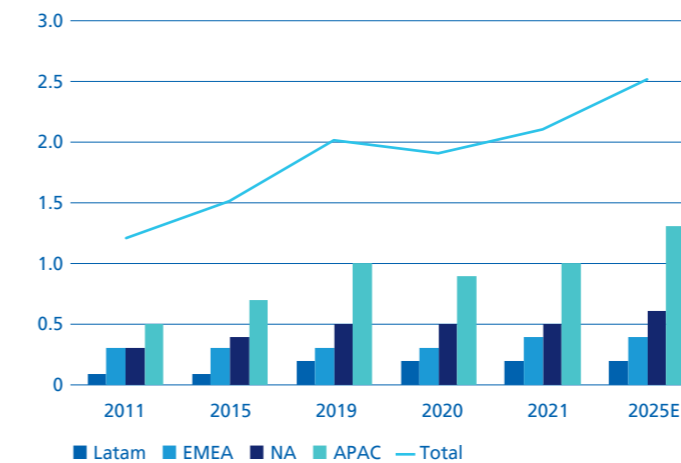
Nonetheless, younger consumers rely less on credit cards and often choose the easiest way to make a payment. An increasingly popular new payment method is Buy Now Pay Later (BNPL) at a POS. This is a short-term form of financing which allows customers to pay for purchases with a delay. BNPL could reduce the volumes of credit card issuers.

But because the payments industry is fundamentally subject to ongoing change, many companies active in the payments sector have long since come to terms with it. They have been able to assert themselves every time and have even grown.

Global payments volume is a measurement in USD that quantifies the totality of all monetary transactions. The consequences of this increase in payment transactions combined with the decline in cash use has also led to an increase in the global revenue pool for payments.

Figure 9 shows quite strikingly the constant growth of the global revenue pool across all regions (coronavirus years excepted). Forecasts for both the overall pool and for the individual regions are positive until 2025. The biggest growth is expected to continue to be in Asia Pacific.

**Figure 9:**  
Global payment transactions turnover in USD trillion



Source: The 2021 McKinsey Global Payments Report (2021).

In a study<sup>1</sup>, the Boston Consulting Group (BCG) forecasts a global annual increase of 7.3% in the global payments revenue pool until 2025. It also estimates the 2025–2030 period will remain attractive. Annual growth for this period will amount to 6.4%.

The reasons for the growth of the global payments revenue pool are generally linked to global economic growth. The coronavirus pandemic also boosted online trading and, consequently, digital payment methods. Other reasons for the future increase in the global payments revenue pool are:

1. Increasing digitisation is enabling many companies to offer payment transactions directly and easily on their own platforms.
2. Banks and financial institutions increasingly see payment transactions as a strategic component.
3. The use of digital currencies is becoming more important.
4. Regulatory bodies prefer global regulatory standards. For example, the EU Payment Services Directive PSD2 creates uniform regulations for payment transactions throughout Europe.
5. Industry consolidation in payment transactions has risen. M&A activity in the fintech sector has been lively for some time.

### 4.1. Global payments revenue pool - features

Each region has its own characteristics. Payment methods are very similar, but the priorities are different. For example, credit card status is higher in North America compared with the other regions, and there is a high level of value creation there.

**Figure 10:**  
Global revenue pool, per region %

|                             | APAC        | North America | EMEA        | Latin America |
|-----------------------------|-------------|---------------|-------------|---------------|
| <b>commercial</b>           |             |               |             |               |
| Transactions across borders | 8%          | 6%            | 16%         | 5%            |
| Account liquidity           | 30%         | 11%           | 10%         | 16%           |
| Domestic transactions       | 19%         | 10%           | 24%         | 12%           |
| Credit cards                | 4%          | 11%           | 2%          | 3%            |
| <b>private</b>              |             |               |             |               |
| Transactions across borders | 2%          | 3%            | 3%          | 1%            |
| Account liquidity           | 15%         | 9%            | 12%         | 12%           |
| Domestic transactions       | 7%          | 18%           | 22%         | 17%           |
| Credit cards                | 15%         | 32%           | 11%         | 34%           |
| <b>Total</b>                | <b>100%</b> | <b>100%</b>   | <b>100%</b> | <b>100%</b>   |

Source: The 2021 McKinsey Global Payments Report (2021).



<sup>1</sup> Boston Consulting Group, Global Payments Report, Oct. 2021, page 6

Figure 11 shows an overview of the most successful companies from the payments sector measured by central financial key figures. Virtually all companies are profitable. The median operating margin is about 16%. Size matters, but smaller companies with modest revenue are already profitable. The largest companies in the payments sector are mainly in the USA. The big exceptions are Tencent and Ant Group from China.

**Figure 11:**  
Sales and profitability of the largest companies in the payments sector

| Payment Large Caps           | SALES         | RATIOS LAST FINANCIAL YEAR |             |                    |                    |                     |                        |                    |                  |              |  |
|------------------------------|---------------|----------------------------|-------------|--------------------|--------------------|---------------------|------------------------|--------------------|------------------|--------------|--|
|                              |               | Profitability              |             |                    |                    | Investments         |                        | BS                 |                  |              |  |
| NAME                         | Sales last FY | Gross Margin               | Oper Margin | 3YR AVG NET MARGIN | 5YR AVG NET MARGIN | Cap Expend to Sales | RD EXPEND TO NET SALES | To Dept To Tot Eqy | Azs Health Grade | Sales Growth |  |
| VISA INC-CLASS A SHARES      | 24,105        | N/A                        | 65.6        | 51.1               | 48.0               | 2.9                 | N/A                    | 57.3               | A                | 10.3         |  |
| TENCENT HOLDINGS LTD         | 560,118       | 43.9                       | 47.2        | 32.7               | 30.7               | 5.5                 | 9.3                    | 36.9               | A                | 16.2         |  |
| MASTERCARD INC - A           | 18,884        | N/A                        | 53.4        | 45.3               | 41.3               | 2.2                 | N/A                    | 198.0              | A                | 23.4         |  |
| ANT GROUP CO LTD-A           | 120,618       | 49.8                       | 18.6        | 8.5                | N/A                | 1.7                 | 8.8                    | 12.2               | N/A              | 40.7         |  |
| PAYPAL HOLDINGS INC          | 25,371        | N/A                        | 16.8        | 16.6               | 15.4               | 3.6                 | 12.0                   | 40.6               | A                | 18.3         |  |
| BLOCK INC                    | 17,661        | 25.0                       | 0.9         | 3.7                | 1.4                | 0.8                 | 7.9                    | 151.4              | B+               | 86.0         |  |
| FISERV INC                   | 16,226        | 49.9                       | 14.1        | 7.8                | 13.1               | 7.1                 | 0.0                    | 68.8               | A                | 9.3          |  |
| FIDELITY NATIONAL INFO SERV  | 13,877        | 37.4                       | 7.6         | 2.4                | 6.3                | 2.3                 | N/A                    | 43.9               | B+               | 10.6         |  |
| ADYEN NV                     | 5,995         | 16.7                       | 9.9         | 7.9                | 7.8                | 0.9                 | 0.0                    | 7.9                | A                | 64.6         |  |
| COINBASE GLOBAL INC -CLASS A | 7,839         | N/A                        | 39.2        | 21.9               | N/A                | 0.0                 | 16.5                   | 61.4               | A                | 513.7        |  |
| GLOBAL PAYMENTS INC          | 8,524         | 55.7                       | 15.9        | 9.3                | 10.6               | 5.8                 | 0.0                    | 48.8               | A                | 14.8         |  |
| FLEETCOR TECHNOLOGIES INC    | 2,834         | N/A                        | 43.8        | 31.0               | 31.8               | 3.9                 | 0.0                    | 212.0              | B+               | 18.6         |  |
| AFFIRM HOLDINGS INC          | 870           | N/A                        | -43.6       | -39.1              | N/A                | 2.3                 | 29.4                   | 26.4               | D                | 70.8         |  |
| WEX INC                      | 1,851         | 62.1                       | 18.5        | -3.3               | 2.8                | 4.6                 | 0.0                    | 140.8              | C+               | 18.6         |  |
| WESTERN UNION CO             | 5,071         | 42.9                       | 22.1        | 17.1               | 11.3               | 0.7                 | 0.0                    | 903.1              | C+               | 4.9          |  |
| EURONET WORLDWIDE INC        | 2,995         | 36.6                       | 6.1         | 4.9                | 6.2                | 3.1                 | 0.0                    | 126.8              | B+               | 20.7         |  |
| ACI WORLDWIDE INC            | 1,371         | 53.4                       | 15.3        | 6.8                | 5.5                | 1.5                 | 10.5                   | 90.0               | A                | 5.9          |  |
| EVO PAYMENTS INC-CLASS A     | 497           | 84.7                       | 14.4        | -0.2               | -2.3               | 6.7                 | 0.0                    | 173.9              | F                | 13.1         |  |
| MONEYGRAM INTERNATIONAL INC  | 1,284         | 46.7                       | 5.7         | -2.8               | -2.4               | 3.2                 | 0.0                    | N/A                | F                | 5.5          |  |
| <b>Median</b>                |               | <b>48.3</b>                | <b>15.6</b> | <b>7.9</b>         | <b>7.8</b>         | <b>3.0</b>          | <b>0.0</b>             | <b>61.4</b>        |                  | <b>17.2</b>  |  |

Source: Zürcher Kantonalbank (2022), Statista (2022), Bloomberg (2022).

Besides the difference in profitability between large and small-cap companies, the vast majority of companies in the payments sector have improved their profitability (see Figure 12) and economic added value over the years thanks to scaling effects. This is exceptional, as companies in many other industries often fail to do this – including technology stocks.

**Figure 12:**  
Margin growth of the largest companies in the payments sector since 2012

| Operating margins | 31/12/12 | 31/12/13 | 31/12/14 | 31/12/15 | 31/12/16 | 31/12/17 | 31/12/18 | 31/12/19 | 31/12/20 | 31/12/21 | Changes 10Y |
|-------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-------------|
| MA US Equity      | 53.3     | 54.2     | 54.1     | 52.5     | 53.5     | 53.0     | 48.7     | 57.2     | 52.8     | 53.4     | 0.1         |
| 700 HK equity     | 32.4     | 28.7     | 36.4     | 37.0     | 34.8     | 35.6     | 29.5     | 29.5     | 36.4     | 47.2     | 14.8        |
| V US equity       | 61.5     | 60.6     | 65.3     | 52.3     | 66.2     | 62.9     | 65.3     | 64.5     | 65.6     |          | 4.1         |
| 688688 CH equity  | N/A      | N/A      | N/A      | N/A      | N/A      | 19.6     | 3.3      | 18.6     |          |          |             |
| PYPL US Equity    | 15.5     | 16.2     | 15.8     | 15.8     | 14.6     | 16.2     | 14.2     | 15.3     | 15.3     | 16.8     | 1.3         |
| FISV US Equity    | 23.6     | 22.0     | 23.9     | 25.0     | 26.2     | 26.9     | 30.1     | 15.8     | 12.5     | 14.1     | -9.5        |
| FIS US Equity     | 18.6     | 17.5     | 19.8     | 16.7     | 13.9     | 16.5     | 17.3     | 9.4      | 4.4      | 7.6      | -11.0       |
| ADYEN NA Equity   | N/A      | N/A      | 8.9      | 12.3     | 18.1     | 9.2      | 10.5     | 11.1     | 10.3     | 9.9      | 1.1         |
| COIN US Equity    | N/A      | N/A      | N/A      | N/A      | N/A      | N/A      | N/A      | -8.6     | 32.0     | 39.2     | 47.8        |
| GPN US Equity     | 15.0     | 15.9     | 16.5     | 14.7     | 14.1     | 21.9     | 16.1     | 12.0     | 15.9     |          | 0.9         |
| FLT US Equity     | 45.9     | 47.0     | 47.1     | 39.2     | 41.2     | 39.3     | 44.8     | 46.5     | 40.7     | 43.8     | -2.1        |
| AFRM US Equity    | N/A      | N/A      | N/A      | N/A      | N/A      | N/A      | -48.2    | -21.2    | -43.6    |          |             |
| WEX US Equity     | 35.6     | 38.6     | 37.5     | 26.8     | 15.7     | 18.7     | 25.5     | 22.4     | -5.9     | 18.5     | -17.1       |
| WU US Equity      | 23.5     | 20.0     | 20.3     | 20.2     | 8.9      | 8.6      | 20.1     | 17.6     | 20.0     | 22.1     | -1.3        |
| EEFT US Equity    | 4.6      | 8.4      | 9.5      | 11.6     | 12.8     | 11.8     | 14.1     | 17.3     | 1.9      | 6.1      | 1.6         |
| ACIW US Equity    | 11.2     | 14.2     | 13.6     | 12.2     | 22.0     | 8.3      | 12.5     | 9.8      | 11.2     | 15.3     | 4.2         |
| EPAY US Equity    | -2.7     | -0.8     | -0.2     | -1.0     | -6.1     | 1.3      | 0.7      | -0.8     | -1.6     |          | 1.1         |
| EVOP US Equity    | N/A      | N/A      | N/A      | N/A      | N/A      | 8.9      | -6.7     | 3.4      | 4.0      | 14.4     | 5.4         |
| MGI US Equity     | 3.9      | 12.1     | 4.9      | 1.1      | 5.4      | 0.9      | 1.3      | 4.0      | 8.5      | 5.7      | 1.8         |

Source: Zürcher Kantonalbank (2022), Bloomberg (2022).

## 5. Other drivers in the payments sector: Fintechs and regulation

**Figure 13:**  
Monetisation strategies of key digital wallets providers

|         |                         | Fees on instant money transfer | Fees on transfers funded by credit card | Fees on transfers funded by noncredit card source | Merchant processing fees | ATM withdrawal fee | Interest income and other income from invested float | Other                                   |
|---------|-------------------------|--------------------------------|---|---|--------------------------|--------------------|--|---|
| Paypal  | PayPal                  | ■                              | ■                                       | ■   | ■                        | ■                  | ■  | Business-to-consumer payouts            |
|         | Venmo                   | ■                              | ■                                       |   | ■                        | ■                  | ■  | Business-to-consumer payouts            |
| Square  | Cash app                | ■                              | ■                                       |   | ■                        | ■                  | ■  | Collects spread on Bitcoin transactions |
| Apple   | Apple Pay mobile wallet |                                |   |   | ■                        |                    |  |   |
|         | Apple Cash              | ■                              |   |   |                          |                    | ■  |   |
|         | Apple Card              |                                |   |   | ■                        |                    |  |   |
| Samsung | Samsung Pay Cash        |                                | ■                                       | ■   |                          |                    |  |   |
|         | Google Pay              |                                |   |   |                          |                    | ■  |   |
|         | Facebook Oay            |                                |   |   | ■                        |                    |  |   |
|         | Zelle                   |                                |   |   | ■                        |                    |  | Business-to-consumer payouts            |

Source: S&P Global Market Intelligence, (2020).

Figure 13 shows that providers of digital wallets use different methods in order to monetise their payment methods. The fees for individual transactions are often very low. Cost efficiency and high transaction volume are therefore required and also important drivers for the innovation of new payment services.

For example, mobile payments specialists Square and PayPal differ from purer “big-tech” companies, which, in addition to an extensive

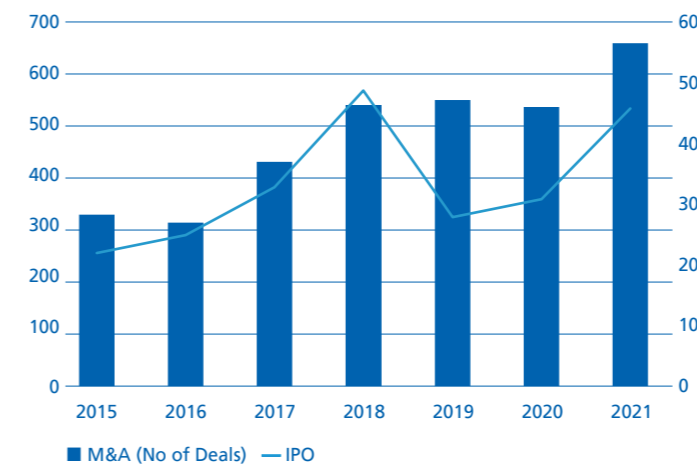
technology offering also offer payment services by charging fees on different money transfers. But technology companies such as Apple, Alphabet, Facebook, etc. already have so many users that they can compensate for the costs incurred in the payments area by providing services in other areas. These large companies already have considerable options for scaling and are therefore also well on the way in terms of margins. Please also refer to section 3.1 (for a discussion of credit and debit cards).

The development of innovative business models depends on market conditions for venture capital and private equity investors. Meanwhile, regulatory changes are also influencing the market for digital payment solutions. Both aspects are examined below:

### 5.1. Fintech industry on the rise

As the outlook for the global payments revenue pool remains attractive, the digital payments sector is constantly attracting new capital. The financing of start-ups, here primarily of fintechs, and the availability of risk capital play a key role in helping industries to advance in technological terms and undergo structural change. One manifestation of the activity and sentiment on the financial markets is the volumes of initial public offerings (IPOs) (see Figure 14). Favoured by central banks' highly expansionary monetary policy, the primary markets for technology companies have not boomed to this degree since 1999.

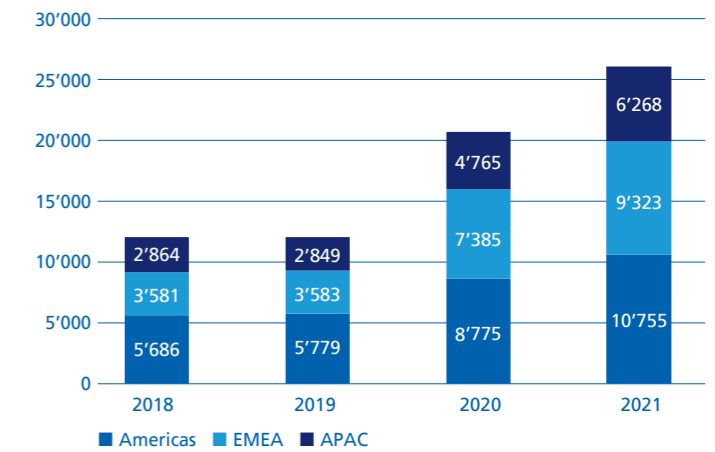
**Figure 14:**  
M&A activity and IPOs in the fintech sector



The fintech sector also enjoyed a recovery/upturn in start-ups. The sector received new funds in all regions. Established big companies such as Visa and Mastercard are constantly facing new challenges. In 2021 alone, more than 28,000 companies were set up in the fintech sector

worldwide<sup>2</sup>. In the medium-term, the most successful firms will be listed on the stock exchange.

**Figure 15:**  
Number of fintech start-ups, 2018–2021, by region



But IPO activity has noticeably slackened since 2022. The more restrictive interest rate policy, the economic environment and geopolitical risks can have a negative impact on the investment climate, at least for a short time.

### 5.2. Impact of regulation

Finance is one of the most regulated sectors in the world. Since the 2008/09 financial crisis, capital requirements have been significantly tightened in particular. Against this background, new bank-like providers are also moving onto the regulators' radar. The focus is on consumer protection and public interest per se, especially as the financial sector is key to any economy.

New technology offers added value in the form of greater efficiency, transparency and data management. At the same time, regulatory provisions restrict the freedom of movement of the actors in the financial sector. New regulations and framework conditions can only be brought in after a certain period of time and have a significant impact on the competitive environment. The pressure for government oversight and control in the public interest is a perennial constant.

<sup>2</sup> <https://www.statista.com/statistics/893954/number-fintech-startups-by-region/>



## 6. Challenges for the companies in the payments area

The increasing technological dependence of a large number of financial companies poses a potential threat. Global supervisory authorities (FINMA, European System of Financial Supervisors ESFS, etc.) have identified increasing risks posed by the emerging fintech sector. Supervisory authorities aim to mitigate risks in the interests of maintaining financial system stability. In general, supervisory authorities are positive about the changes in the fintech sector as financial innovations simplify and modernise payment mechanisms are some of the positive outcomes. For example, VAT collection has become much easier thanks to a flawless and efficient payment process (see following section).

### 5.2.1. The state interest in frictionless consumption: tax revenues

The taxation of goods and services by means of value added tax (VAT) has become an extremely important component of the total tax revenues of OECD countries. In the past 45 years, VAT in OECD countries has risen from the low single-digits to well above 25%. Research by Tax Foundation<sup>3</sup> shows that 32.3% of total tax revenues in OECD countries are now consumption-related tax revenues (consisting of VAT, sales taxes, excise taxes and other taxes). Countries are therefore very interested in ensuring that consumers in the purchasing process and companies in the sales process are not unnecessarily hindered. That is why countries welcome digital forms of payment. Another important point from a sovereign perspective is ensuring a state-of-the-art payments infrastructure. The more efficient the infrastructure and sales process, the simpler it will be for the country to check and claim VAT.

Smaller companies are sometimes overwhelmed by tax administration in some countries, so simplified procedures are permitted. But there is still theoretically potential to improve VAT collection in the OECD countries. A smooth purchasing procedure is therefore a basic requirement for countries to collect taxes.

Digitisation of payment transactions also facilitates controls and the monitoring of cash flows. This is beneficial from a government's perspective. Another conceivable extension is the simplified enforcement of certain monetary and cyclical policy measures, such as negative interest rates and mandatory levies.

A survey of bank directors conducted by Capgemini in 2020 found the following: innovation is quickly recognised by customers, and digitisation is at the forefront of payment transformation for customers. One challenge of this transformation is that the banking infrastructure need to be continuously upgraded. A payment transaction must appear primarily attractive and friction-free. But the down side is the higher risks due to more open systems<sup>4</sup>. According to the survey, the pandemic accelerated this transformation process, with nearly half of the banks admitting that outdated IT infrastructure is one of their biggest challenges.

Figure 16 shows the issues that cause the most headaches for the leading bank managers in the transaction area. However, the question is what risks have a particularly big impact on operations?

**Figure 16:**  
Top risks on the part of payments providers



Source: Capgemini Financial Services Analysis (2020). Report, p. 16.

1. Cybersecurity risk: Cloud use poses security risks such as system failures, data loss, data theft and unauthorised access to sensitive data.
2. Regulatory risks: New or modified regulations describe the risk to companies, sectors and markets arising from new or amended regulatory requirements. The task of the US Financial Crimes Enforcement Network (FinCEN) includes combating the illegal use of the financial system (money laundering, etc.). Together with other global and regional authorities, FinCEN may, if necessary, implement measures that can significantly change the attractiveness of digital payments methods and their market.
3. Operational risks: These include human error, non-functioning processes, settlement risks, clearing errors, etc.
4. Credit risks: The risk of partial or total default of agreed payments.
5. Business risk: The global economy is constantly facing new challenges and changing risks. The pandemic had a significant impact. Stresses such as the war in Ukraine and serious supply chain difficulties can put a strain on payment transactions.

### 6.1. Cybersecurity

Cybersecurity comprises a dynamic set of measures to protect networks, servers, computers and mobile end devices against hacker attacks. Companies which offer products or services in the cybersecurity sector often develop software solutions for a customer base which does not have a specific focus on payment services or digital payments, but primarily requires assistance for their own or third-party IT systems. For this reason, companies which are assigned to the cybersecurity sector only have a very limited focus on digital payments.

<sup>3</sup> Consumption Tax Policies in OECD, Jan 2020, Tax Foundation

<sup>4</sup> Capgemini Financial Services Analysis, 2020, page 17

## 7. Fintechs and their impact on the banking/financial industry

As an established industry, the banking world is on the defensive compared with the more dynamic technology sector, which is not burdened by any legacy. The technological revolution brings with it a multitude of efficiency-boosting and data-management opportunities, whose potential cannot yet be fully identified. Financial regulation focuses on consumer protection and financial system stability. This, in turn, makes it more difficult for innovation and less established market participants to enter the market (see 5.2). Aside from the investment business, banks generate a large proportion of their value creation with transactions recognised in the balance sheet, such as the interest rate differential business. In the investment business, the main focus is ever more on consultancy-intensive services such as investment and pension services. In these areas, competition is already very pronounced and there are strict regulatory requirements. The cost/income ratio therefore appears to be less advantageous here for innovative companies.

Payment transactions are a core function of every banking-customer relationship. But banks create a large proportion of value outside payment transactions. Value creation and profitability of companies in this area are generally decisive for the attractiveness of a segment. For the fintech industry, these tend to be in the tapping of new markets such as online retail (sales fees/dealer loans) or in focusing on previously underserved market participants. The latter offer the greatest potential, especially in emerging markets. Against this background, we believe that banking institutions in developing countries have a key role to play in further growing payments traffic. And in doing so they will also make an important contribution to achieving the SDGs (see section 1).

The market volume of foreign currency transactions has increased more than fivefold over the past 20 years. Margins on cross-border trade and simple consumer transactions are currently still very high for the financial intermediaries involved. Alternative providers can positively alter transparency and costs from the perspective of consumers and individual entities. But this also limits the economic potential for new market players.

In summary, the potential competition or risk for established banks from the perspective of payment transactions is limited. The vast majority of digital payment transactions require a bank account. The “balance sheet-heavy” banks are investing large amounts in optimising and improving their IT capabilities while eliminating legacy issues. They would be wise to incorporate technological innovations as quickly as possible and to prepare customer data accordingly and make it more usable.

It is very important to point out that this thematic assessment also indicates that the payments industry is making money thanks to increasing transaction volumes. This being the case means funding will be available to improve payments infrastructure. Thanks to good growth and returns, the sector has received a lot of capital.

## 8. Which sectors and companies are benefiting from the digital payments transformation?

The analysis and assessment of the of “digital payments” area has demonstrated that certain core areas and companies are particularly favoured by the digital payments transformation. The sectors that have stood out are data processing & outsourced services (GICS 45102020), systems software (GICS 45103020), some companies from consumer finance (GICS 40202010) and selected diversified banks from developing countries (GICS 40101010). These sectors are the biggest beneficiaries of this change.

But the data processing & outsourced services area is clearly the most strongly associated with the theme. This is because almost all companies in this area have business activities that offer payments and/or platforms related to online payments, mobile wallets, credit card payments, etc. to a large extent

Systems software is also important as a large proportion of companies manufacture/offer security software themselves. Some diversified banks from developing countries are also involved too. These will also play a key role in the further developing payment transactions in the respective countries. In addition, the selection also includes the two well-known consumer credit companies AMEXCO and Discover, based in the USA, which operate fully integrated payment networks, among other things.

Companies which particularly benefit from the digital payments trend are listed in the table below. The companies are assigned to sectors and then listed by market capitalisation. The expected sales growth of the companies (IBES estimates CAGR 3 Fwd.) shows how strongly the individual companies are influenced by the different drivers in the payment area as a whole.

We generally favour companies which have a larger market capitalisation. Despite their size, they have relatively attractive growth rates and often achieve very high margins. This allows them to self-finance acquisitions from current cash flow and an often advantageous balance sheet. Attractive innovations and companies in the payments sector are generally incorporated more quickly in larger companies. What is more, innovations and business models of acquired companies can be globalised more quickly. In turn, the scaling advantages favour the already high margins. As already mentioned in section 4, industry consolidation is expected to continue.

In summary, opportunities are promising, both at the top line (growth in the high single-digit range) and at the bottom line. It is also important to stress that the payments area is constantly changing. The various payment options (cash, card, etc.) represent competing forms to a certain extent, and over time new function carriers are continuously added while others disappear. Various forms will continue to coexist in the years ahead.

**Figure 17:**  
**Results of the thematic screening**

| Name   | BB ticker    | GICS sub industry               | NAU reason      | Theme areas   | Relevance for the-matic assessment | IBES Sales Growth Fwd CAGR 3Y | Market capitalisa-tion in USD billion |
|--|--------------|---------------------------------|-----------------|---|------------------------------------|-------------------------------|---------------------------------------|
| Visa Inc. Class A                              | V US         | Data process & outsourced serv. | Sustain purpose | FINANCIAL_INFRASTRUCTURE: 100                               | Yes, high                          | 15%                           | 439.6                                 |
| Mastercard Incorporated Class A                | MA US        | Data process & outsourced serv. | Sustain purpose | FINANCIAL_INFRASTRUCTURE: 100                               | Yes, high                          | 17%                           | 314.0                                 |
| American Express Company                       | AXP US       | Consumer finance                | Sustain purpose | FINANCIAL_INFRASTRUCTURE: 100                               | Yes, high                          | 13%                           | 104.8                                 |
| PayPal Holdings, Inc.                          | PYPL US      | Data process & outsourced serv. | Sustain purpose | FINANCIAL_INFRASTRUCTURE: 100                               | Yes, high                          | 14%                           | 82.7                                  |
| Fiserv, Inc.                                   | FISV US      | Data process & outsourced serv. |                 | FINANCIAL_INFRASTRUCTURE: 100                               | Yes, high                          | 5%                            | 59.8                                  |
| Fidelity National Information Services, Inc.   | FIS US       | Data process & outsourced serv. |                 | FINANCIAL_INFRASTRUCTURE: 100                               | Yes, high                          | 7%                            | 57.1                                  |
| Adyen NV                                       | ADYEN NA     | Data process & outsourced serv. | Sustain purpose | FINANCIAL_INFRASTRUCTURE: 100                               | Yes, high                          | 29%                           | 45.7                                  |
| Block Inc Class A                              | SQ US        | Data process & outsourced serv. | Sustain purpose | FINANCIAL_INFRASTRUCTURE: 100                               | Yes, high                          | 13%                           | 37.8                                  |
| Global Payments Inc.                           | GPN US       | Data process & outsourced serv. |                 | FINANCIAL_INFRASTRUCTURE: 100                               | Yes, high                          | 5%                            | 31.6                                  |
| Discover Financial Services                    | DFS US       | Consumer finance                | Sustain purpose | FINANCIAL_INFRASTRUCTURE: 100                               | Yes, high                          | 3%                            | 28.0                                  |
| FLEETCOR Technologies, Inc.                    | FLT US       | Data process & outsourced serv. |                 | FINANCIAL_INFRASTRUCTURE: 100                               | Yes, high                          | 13%                           | 16.3                                  |
| Nexi S.p.A.                                    | NEXI IM      | Data process & outsourced serv. | Sustain purpose | FINANCIAL_INFRASTRUCTURE: 100                               | Yes, high                          | 8%                            | 10.8                                  |
| Worldline SA                                   | WLN FP       | Data process & outsourced serv. | Sustain purpose | FINANCIAL_INFRASTRUCTURE: 100                               | Yes, high                          | 12%                           | 10.0                                  |
| WEX Inc.                                       | WEX US       | Data process & outsourced serv. | Sustain purpose | FINANCIAL_INFRASTRUCTURE: 95; EE_INDUSTRIAL: 5              | Yes, high                          | 11%                           | 7.1                                   |
| Western Union Company                          | WU US        | Data process & outsourced serv. | Sustain purpose | FINANCIAL_INFRASTRUCTURE: 100                               | Yes, high                          | -3%                           | 6.3                                   |
| GMO Payment Gateway, Inc.                      | 3769 JP      | Data process & outsourced serv. |                 | FINANCIAL_INFRASTRUCTURE: 100                               | Yes, high                          | 22%                           | 5.8                                   |
| Euronet Worldwide Inc.                         | EEFT US      | Data process & outsourced serv. |                 | FINANCIAL_INFRASTRUCTURE: 100                               | Yes, high                          | 13%                           | 4.9                                   |
| Shift4 Payments, Inc. Class A                  | FOUR US      | Data process & outsourced serv. |                 | FINANCIAL_INFRASTRUCTURE: 100                               | Yes, high                          | -1%                           | 2.6                                   |
| EVERTEC, Inc.                                  | EVTC US      | Data process & outsourced serv. | Sustain purpose | FINANCIAL_INFRASTRUCTURE: 100                               | Yes, high                          | 4%                            | 2.6                                   |
| EVO Payments, Inc. Class A                     | EVOP US      | Data process & outsourced serv. |                 | FINANCIAL_INFRASTRUCTURE: 100                               | Yes, high                          | 11%                           | 1.3                                   |
| Network International Holdings Plc             | NETW LN      | Data process & outsourced serv. | Sustain purpose | FINANCIAL_INFRASTRUCTURE: 100                               | Yes, high                          | 22%                           | 1.1                                   |
| PAX Global Technology Limited                  | 327 HK       | Elec Equipment & Instruments    | Sustain purpose | FINANCIAL_INFRASTRUCTURE: 100                               | Yes, high                          | 17%                           | 1.0                                   |
| International Money Express, Inc.              | IMXI US      | Data process & outsourced serv. | Sustain purpose | FINANCIAL_INFRASTRUCTURE: 100                               | Yes, high                          | 17%                           | 0.8                                   |
| i3 Verticals, Inc. Class A                     | IIIV US      | Data process & outsourced serv. |                 | FINANCIAL_INFRASTRUCTURE: 100                               | Yes, high                          | 19%                           | 0.8                                   |
| EML Payments Ltd.                              | EML AU       | Data process & outsourced serv. | Sustain purpose | FINANCIAL_INFRASTRUCTURE: 100                               | Yes, high                          | 17%                           | 0.3                                   |
| HDFC Bank Ltd Spon ADR                         | HDFCB IN     | Diversified banks               | ESG leaders     |   | Neutral but affected               | 12%                           | 95.7                                  |
| ICICI Bank Limited                             | ICICIB IN    | Diversified banks               |                 | NON_SME_INSURANCE: 16; NONMAJOR_SERVICES: 5; SME_FINANCE: 1 | Neutral but affected               | 16%                           | 66.3                                  |
| State Bank of India                            | SBIN IN      | Diversified banks               | ESG leaders     | NONMAJOR_SERVICES: 17; SME_FINANCE: 3                       | Neutral but affected               | 3%                            | 54.7                                  |
| PT Bank Rakyat Indonesia (Persero) Tbk Class B | BBRI IJ      | Diversified banks               | Sustain purpose | EM_FINANCE_ACCESS: 100                                      | Neutral but affected               | 8%                            | 41.4                                  |
| Itau Unibanco Holding SA Pfd                   | ITUB4 BZ     | Diversified banks               | ESG leaders     | SME_FINANCE: 5  | Neutral but affected               | 8%                            | 37.9                                  |
| Banco Bradesco S.A.                            | BBDC3 BZ     | Diversified banks               | ESG leaders     | SME_FINANCE: 11; NON_SME_INSURANCE: 6                       | Neutral but affected               | 8%                            | 30.7                                  |
| Banco Bilbao Vizcaya Argentaria S.A.           | BBVA SM      | Diversified banks               | NAU Old         | EM_FINANCE_ACCESS: 100                                      | Neutral but affected               | 0%                            | 26.3                                  |
| PT Bank Mandiri (Persero) Tbk                  | BMRI IJ      | Diversified banks               | Sustain purpose | EM_FINANCE_ACCESS: 85                                       | Neutral but affected               | 13%                           | 22.9                                  |
| Banco do Brasil S.A.                           | BBAS3 BZ     | Diversified banks               | Sustain purpose | EM_FINANCE_ACCESS: 100                                      | Neutral but affected               | 12%                           | 17.4                                  |
| Grupo Financiero Banorte SAB de CV Class O     | GFNORTEO MM  | Diversified banks               | Sustain purpose | EM_FINANCE_ACCESS: 100                                      | Neutral but affected               | 13%                           | 15.9                                  |
| Credicorp Ltd.                                 | BAP US       | Diversified banks               | ESG leaders     | NON_SME_INSURANCE: 13; SME_FINANCE: 7                       | Neutral but affected               | 11%                           | 9.5                                   |
| BDO Unibank, Inc                               | BDO PM       | Diversified banks               | Sustain purpose | EM_FINANCE_ACCESS: 99                                       | Neutral but affected               | 11%                           | 9.3                                   |
| Bancolombia                                    | CIB US       | Diversified banks               | ESG leaders     |   | Neutral but affected               | 10%                           | 7.1                                   |
| Ant Group                                      | (not listed) |                                 |                 |   | Neutral but affected               |                               |                                       |
| Palo Alto Networks, Inc.                       | PANW US      | Systems Software                |                 | CYBERSECURITY: 100  | Only limited                       | 25%                           | 49.1                                  |
| CrowdStrike Holdings, Inc. Class A             | CRWD US      | Systems Software                | Sustain purpose | CYBERSECURITY: 100  | Only limited                       | 40%                           | 40.5                                  |
| Zscaler, Inc                                   | ZS US        | Systems Software                |                 | CYBERSECURITY: 100  | Only limited                       | 43%                           | 21.4                                  |
| Check Point Software Technologies Ltd.         | CHKP US      | Systems Software                | NAU Old         | CYBERSECURITY: 80   | Only limited                       | 5%                            | 15.7                                  |
| NortonLifeLock Inc.                            | NLOK US      | Systems Software                | Sustain purpose | CYBERSECURITY: 100  | Only limited                       | 4%                            | 13.2                                  |
| Trend Micro Incorporated                       | 4704 JP      | Systems Software                | Sustain purpose | CYBERSECURITY: 100  | Only limited                       | 9%                            | 7.3                                   |
| Avast Plc                                      | AVST LN      | Systems Software                | Sustain purpose | CYBERSECURITY: 100  | Only limited                       | 4%                            | 6.0                                   |
| SailPoint Technologies Holdings, Inc.          | SAIL US      | Systems Software                | Sustain purpose | CYBERSECURITY: 100  | Only limited                       | 22%                           | 5.9                                   |
| CyberArk Software Ltd.                         | CYBR US      | Systems Software                | Sustain purpose | CYBERSECURITY: 100  | Only limited                       | 22%                           | 5.2                                   |
| Qualys, Inc                                    | QLYS US      | Systems Software                | Sustain purpose | CYBERSECURITY: 100  | Only limited                       | 16%                           | 4.8                                   |
| BlackBerry Limited                             | BB CN        | Systems Software                | Sustain purpose | CYBERSECURITY: 70   | Only limited                       | 9%                            | 4.2                                   |
| Rapid7 Inc.                                    | RPD US       | Systems Software                | Sustain purpose | CYBERSECURITY: 100  | Only limited                       | 24%                           | 4.0                                   |
| Varonis Systems, Inc.                          | VRNS US      | Systems Software                | Sustain purpose | CYBERSECURITY: 100  | Only limited                       | 22%                           | 3.1                                   |
| KnowBe4, Inc. Class A                          | KNBE US      | Systems Software                |                 | CYBERSECURITY: 100  | Only limited                       | 27%                           | 2.8                                   |
| Ping Identity Holding Corp.                    | PING US      | Systems Software                |                 | CYBERSECURITY: 100  | Only limited                       | 17%                           | 1.6                                   |
| Kape Technologies Plc                          | KAPE LN      | Systems Software                |                 | CYBERSECURITY: 100  | Only limited                       | 49%                           | 1.2                                   |
| Absolute Software Corporation                  | ABST CN      | Systems Software                | Sustain purpose | CYBERSECURITY: 100  | Only limited                       | 30%                           | 0.6                                   |
| Telos Corporation                              | TLS US       | Systems Software                | Sustain purpose | CYBERSECURITY: 99; EE_INDUSTRIAL: 1                         | Only limited                       | 7%                            | 0.5                                   |
| WithSecure Corporation                         | WITH FH      | Systems Software                | Sustain purpose | CYBERSECURITY: 100  | Only limited                       | -3%                           | 0.4                                   |

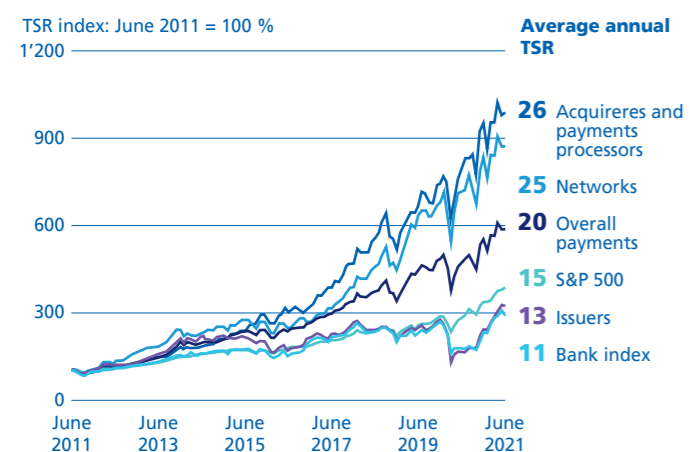
Source: Zürcher Kantonalbank (2022), MSCI (2022), Bloomberg (2022) and IBES (2022).



### 8.1. Performance of the payments industry

As already mentioned, the payments industry has received a lot of capital over the years. The long-lasting drivers prepared the way and created attractive prospects for the sectors most affected by digital transformation. Many start-ups emerged, more mature companies went public and M&A activity was comparatively high. The total shareholder return (TSR) of the payments industry compared with the S&P 500 (SPX) is shown below.

**Figure 18:**  
TSR of the payments industry versus SPX



Source: BCG report (2021), p. 4

Since the major index providers such as MSCI or S&P do not currently offer a separate market-cap weighted index in the payments space, some information is missing. The German financial index provider Solactive operates the Solactive Digital Payments Index NTR (Bloomberg: SOLDPAY Index). But this is a non-market-cap-weighted index consisting of companies that are active in the digital payments sector. Solactive Digital Payments contains many smaller growth companies with an unusually high weighting in the index. Performance has corrected sharply against broad market indexes such as the S&P 500 since early 2021. The growth stocks segment was very badly punished during this phase. Valuations are now at a significantly more attractive level than two years ago.

## 9. Conclusion

The global expansion of telecommunications infrastructure is also driving the digitisation of money transactions. The digital payments market is therefore becoming ever larger at the expense of cash transactions. Estimated growth rates for digital financial services in the coming years are also in the high single-digit range. This will benefit both established payment service providers and start-ups with cutting-edge digital offerings. Regulatory changes can affect the profitability and growth rates of business models, both positively and negatively. In the meantime, cybercrime is also keeping pace with digitisation. Bank directors therefore consider it to be the biggest risk. An evaluation of opportunities and risks in the digital payment sector must therefore always be complemented by fundamental analyses.

Zürcher Kantonalbank's Asset Management continuously assesses the risk-return profile of companies in a fundamental analysis and includes this in investment decisions. Current developments are closely monitored to evaluate the effects on companies at an early stage and comprehensively.

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