European payments market: recent trends and expected developments

Supervisor:
Professor Marshall Langer

Co-supervisor:
Professor Emilio Barone

Candidate:
Arcangelo Ilario, 665001

ACADEMIC YEAR 2015/2016
## Table of contents

### Introduction: Payments within the global FinTech environment ........................................... 3

### Chapter one: European payments landscape ........................................................................ 7

1.1 Key market players description ......................................................................................... 8

1.1.1 Issuers .......................................................................................................................... 9

1.1.2 Merchant acquirers ....................................................................................................... 10

1.1.3 Card networks ............................................................................................................. 12

1.1.4 Issuing and acquiring processors .................................................................................. 13

1.1.5 Terminal providers ....................................................................................................... 14

1.1.6 Automated clearing houses ......................................................................................... 15

1.1.7 Convenience payments operators ............................................................................... 15

1.1.8 On-line payment solutions providers ........................................................................... 16

1.2 European payments market key performance indicators .................................................. 18

1.2.1 Historical evolution and forecasts ............................................................................... 18

1.2.2 European and US payment markets side by side .......................................................... 24

1.3 Recent regulatory initiatives .............................................................................................. 30

1.3.1 MIF Regulation .......................................................................................................... 31

1.3.2 SEPA Initiative ........................................................................................................... 36

1.3.3 PSD2 Directive ........................................................................................................... 38

### Chapter two: M&A activity in the European payments sector ............................................. 43

2.1 Roadmap towards recent key deals in Europe .................................................................. 45

2.1.1 Type of buyers and drivers of payments M&As ......................................................... 48

2.1.2 Italian banks outsourcing of processing activities ....................................................... 51

2.1.3 European banks merchant acquiring outsourcing ....................................................... 54

2.1.4 Private equity investments in the European payments space ....................................... 57

2.1.5 Worldline / Equens transaction .................................................................................. 61

2.2 Observed sector trends and expected developments ....................................................... 64

2.2.1 European and US payment markets comparison ....................................................... 64

2.2.2 Recent trends and expected next steps for the European payments market .............. 68

### Chapter three: Payments within the Equity Capital Markets ............................................. 71

3.1 European payments equity market snapshot .................................................................... 72

3.1.1 Key recent IPOs ......................................................................................................... 72

3.1.2 European and US equity markets comparison .............................................................. 79
Introduction

Payments allow people to trade goods and services. It has been so since the dawn of human civilization and it is still true in the modern age we live today. What changed since then have been the methods of payments: barter, coins, paper money, checks, credit cards are only some of the key developments in this sector. However, in the recent years the payments industry is undergoing profound changes, and the way consumers pay for goods and services is changing at a pace faster than ever. This is due to several reasons, such as regulatory changes, with Governments focused on reducing the usage of cash to fight black economy, and evolving consumers’ preferences, but above all to the technological revolution that has been reshaping our lives for the last decade. Indeed, the so-called “digital disruption” completely overturned several sectors, with tech giants replacing traditional service providers as consumers’ first choice. Uber, Airbnb, Spotify, Amazon, Netflix are only some examples of this transformation, to which the payments sector is not immune.

However, to get a good understanding of the implications of this for our topic we need to take a step back and place payments within the broader “FinTech” sector. FinTech is an amorphous term derived from a mix of “financial” and “technology”. At a broad level, it can be defined as any technology that enhances the delivery of financial services or creates new markets for financial products. At a first glance, Figure 1 provides us with some examples of the main FinTech products and services and helps us get an high level understanding of the sectors mainly affected by FinTech innovations.
As part of the above mentioned digital revolution, FinTech is gaining significant momentum and causing disruption to the traditional value chain. Figure 2, that shows the number of Google searches for “FinTech” in the last five years, helps us get a first idea of the growth this sector is experiencing recently.

These growth trends are then even more astonishing if we look at real market data: according to PwC 2016 Global FinTech Report, funding of FinTech start-ups more than doubled in 2015 reaching $12.2bn, up from $5.6bn in 2014. Payments obviously account only for part of these figures, however they are hands down the most important contributor to FinTech’s success: as a research from First Data Capital dated March 2016 shows, payments is the first FinTech sector to experience major consolidation and is the most active in terms of M&A in the time frame 2013-2015, accounting for 58% of overall FinTech deal volume.

As it is always the case with innovations, this extraordinary rise of FinTech also bears risks. For instance, many FinTech products are completely new for the market and are therefore unregulated. New ad-hoc regulatory provisions may be undertaken to overcome this problem, but regulation is by nature slow, while as the above numbers show, financial innovations penetrate the market very quickly. This lack of regulation and the always increasing investors’ appetite are two features of FinTech potentially dangerous for financial markets and the overall economy: they tend to be some of the key triggers of a financial bubble, with all the risks and costs that a bubble involves once it bursts. Moreover, some FinTech innovations may actually
impact effectiveness of monetary policy and transmission mechanisms, as it was the case for Blockchain technology, the backbone of the Bitcoin virtual crypto-currency.

However, at the current stage of development FinTech is seen by market participants much more as an opportunity rather than a risk. The above mentioned Blockchain clearly shows this common view: it is indeed the core technology underlying Bitcoin, but Bitcoin is just one special use of Blockchain. This new technology, if well implemented into the payments system, may significantly reduce the transaction execution timeframe and increase transparency and security for all counterparts of the payments system. As a proof of that, banks and financial services companies are increasingly investing in Blockchain technology, either through in-house researches or by partnering with Blockchain-specialist companies. For instance, Santander, UniCredit, UBS and many other banks recently announced a partnership with Ripple, a US venture capital-backed start-up specialized in Blockchain.

Coming back to payments, in the last few years this industry is not only benefiting from the booming of the broader FinTech sector as a whole shown above, but also capturing more investments than other adjacent branches of the FinTech world. This is due to some peculiar features that characterize payments as a stand-alone sector and that triggered an increasing appetite from different players willing to enter this market, such as private equity funds, hi-tech giants, Government-backed entities and wealthy private investors. These features are many and various, and they also change according to consumers’ preferences from one country to another. Anyway, some of them are common to the global payments sector as a whole. At a very preliminary and broad level, they can be summarized in the three core pillars below:

1. Although payment methods changed over time, there has always been a need for payments. Payments never became obsolete.

2. When new payment methods arise, they tend to be additive. That is, new methods tend to increase the total number of payment transactions in the system rather than replace older payment methods. E-commerce and m-commerce solutions give great evidence of this, as they gave consumers a faster and easier way of making purchases and made them more willing and likely to transact.

3. Although some payment methods may experience a secular decline in usage, they rarely, if ever, go extinct. The popularity of cash in the digital society described above supports this point, as does the continued use of checks. Even barter cannot be considered obsolete as we all still use it in our everyday life when we exchange favours with our friends or relatives.
These three principles are of more than just academic interest: they highlight why the payments industry has many attractive characteristics from an investor’s perspective.

As a consequence, also the perception that other industry players have of payments services providers is dramatically changing. While payments companies have historically been considered akin to utilities, banks and merchants now more and more view them as technology providers which can handle complex transactions and boost revenues and profitability. Nevertheless, even though the complexity and sophistication of payments have increased tremendously over time, their critical role remains the same: payments allow economies to function.
Chapter one: European payments landscape

Before going more in depth with an analysis of the most important recent trends in the European payments market and before observing the main strategies portrayed by key payments players in Europe in the last years, it is better take a look at the background of this sector, in order to be able to fully understand its dynamics.

In this chapter, we will try to provide such background and to give a snapshot of the current stage of development of the European payments market. In doing so, we will first describe how the payments value chain works and who are the key players in this industry (“payment service providers, “PSP”), also by providing examples of some of the key companies competing in the European payments environment for each part of the value chain. Then, we will give an overview of the main industry key performance indicators and observe both how they evolved over time and their expected development in the next few years. We will also compare, in terms of these key performance indicators, the European payments market with another, more mature ecosystem such as the USA. Finally, there will be a roadmap towards the most important regulatory initiatives undertaken at European level within the payments sector, as they are expected to play a very important role in the development of the overall sector in the future.
1.1 Key market players description

Payments are conceptually very simple, as they are only an exchange of values between two parties, and some of the payments methods mentioned above (i.e. coins, barter) reflect this simplicity also in practice. However, the modern payments ecosystem has evolved into a complex, multi-layered industry that represents a clear shift-away from this simplicity. Not only the means of payments have changed, but also the players competing in the industry did so. Therefore, in order to familiarize with the current payments environment it is better to first get an understanding of the key market players and the payments value chain. Figure 3 helps us get a preliminary and very basic idea of the latter.

Even though it is just a summary that shows the current shape of the industry in a nutshell, figure 3 indicates basically all the key players active in the current payments ecosystem. Nevertheless, as we will see more in details later on, the situation in practice is way more complex. Nowadays, the barriers separating the five pieces of the value chain described above are fading and the edges dividing one player from another are way more blurred than how figure 3 shows. Indeed, more and more integrated players, covering basically the whole value chain, are arising.

Anyway, before going more in depth with the analysis of recent trends and integration strategies of international payments champions, it is useful to describe every piece of the value chain separately and understand who are the key players within each of the five segments illustrated above.

To do so, it is better to start from the most complex part of the above value chain, as well as the more active one in terms of innovation, merger and acquisitions in the last few years, that is the card payments value chain. Figure 4 is a good starting point for this, as it gives us an overview of the key parties involved in a card payments transaction.
As we can see from the diagram, it is better to divide the players characterizing the card payments environment in two main groups: the issuing ecosystem, which typically includes all the parties that provide services to the cardholder, and the acquiring ecosystem, that instead serves the merchants. In between these two blocks, we have the card networks (also called schemes), that switch transactions between the ecosystems, facilitate settlement and represent the key link between the issuing and acquiring worlds.

We can now analyze more in depth each of the blocks illustrated by figure 4, in order to better contextualize each player’s role and start to understand who are the main companies operating in each business in the current European competitive landscape.

### 1.1.1 Issuers

Card issuers provide cardholders with a credit, debit or pre-paid card (usually on behalf of the card networks) and assist them with a wide range of value added services (e.g. cards personalization, account statements, mobile banking services). Apart from the pre-paid card case, issuing services usually go hand-to-hand with the cardholder holding a balance account at the issuer, from which the value of card transactions is automatically debited. In case of a credit card, issuers also extend credit to the cardholder and therefore bear credit risk. Furthermore, issuers usually provide customers also with ATM services (mainly withdrawals, but most recently also other payments services such money transfers and top-ups).
Hence, in the current European payments environment, debit and credit card issuers are, not surprisingly, mainly banks. Giants such as HSBC, Santander, BNP Paribas, Intesa Sanpaolo and UniCredit are therefore the main players within this segment. Anyway, there are some exceptions. For instance, the Italian market gives us a great example of a non-banking operator that nonetheless enjoys a market leading positioning in the domestic debit cards ecosystem. That is Poste Italiane, the Italian postal services provider, that enjoys a \( \sim 14\% \) market share in the Italian debit cards market.

As per pre-paid cards, instead, the competitive landscape is quite more various. Indeed, banks still play a major role in this business as well, but the presence of specialized players in this segment is way higher than in the credit and debit cards ones. Again, the Italian market provides us with a great example of this tendency, with Poste Italiane being the undisputed market leader in the domestic market for this specific product with a 51\% market share. Furthermore, another important player in the sector is CartaSi, the Italian market leading merchant acquirer that plays an important role in pre-paid cards issuing also. The same features are then also observable at a broader European level, as for instance Pockit, one of the most popular pre-paid cards in UK is issued by Wirecard, a German company that is among the top-5 largest payments companies in Europe.

1.1.2 Merchant Acquirers

Merchant Acquirers are the “distribution and sales” arm of the payments industry. They hold a direct relationship with merchants and enable them to accept payments via cards and through an always increasing number of alternative payments solutions (e.g. mobile payments through smart phones or other devices), both in-store and on-line. They also provide merchants with other services such as POS terminals rental and management, transaction authorization from the merchants’ side and dynamic currency conversion.

Alike card issuing, merchant acquiring is a “front-office” business, given that acquirers maintain an on-going relationship with their merchant clients. Therefore, value-added services such as marketing, loyalty programs, contact centre and customer assistance are also key for a merchant acquirer.

In Europe, merchant acquiring services have traditionally been bank-operated. However, in the recent years more and more specialized players offering ad-hoc payments services for merchants started to arise. On the back of this, many banks decided either to partner with these specialized players, leveraging on merchant acquirers capabilities, or to completely outsource their activities

---

\(^1\text{As of 2014, according to Poste Italiane IPO prospectus dated 9 October 2015}\)
to increase efficiency. As a result, the current European merchant acquiring ecosystem is dominated by specialized players, with banks however still playing an important role. Figure 5, that ranks top-10 European merchant acquirers in 2015 in terms of transaction value, clearly highlights this feature.

As we can see, only 3 players out of the top-10 largest European merchant acquirers are represented by banks. Cardnet, joint venture between the UK bank Lloyds and the US-based payments multinational company First Data, is then the only example within the top-10 of a bank’s partial merchant acquiring outsourcing, but there are many more example of this kind if we further go down in this ranking, as we will see later on in greater detail. Even at a first glance, it already is clear how banks are progressively being replaced by specialized companies as main participants in the merchant acquiring business.

The UK company Worldpay, largest merchant acquirer in Europe in 2015 with €352bn transaction managed, clearly gives us an example of this. The company was initially a fully-owned subsidiary of the UK Royal Bank of Scotland. It was then partially sold in 2010, when its parent established a JV with the PE funds Advent International and Bain Capital. Two years later, Royal Bank of Scotland completed its staged exit by selling to the funds its remaining stake in Worldpay. Finally, the PE shareholders listed the company in October 2015 in one of the largest IPOs in UK of the last decade. Worldpay is now a fully independent player and the largest European merchant acquirer, with operations in many countries all over the world and a
strong footprint in the USA. As we will see later on, this only one of many examples of this kind in the recent years in Europe.

Along with Worldpay, other important independent merchant acquirers in Europe are the Danish company Nets, the Swiss SIX, the already mentioned Italian CartaSi, while Global Payments and Elavon, who also appear in the top-10, are US-based companies with operations also in Europe. However, it is crucial to recall that an important part of the European merchant acquiring activities are is bank-operated. As figure 5 shows, the 2nd largest merchant acquirer in 2015 has been Barclays, that through its full-owned subsidiary Barclaycard managed transactions for a total value of €316bn. Furthermore, French banks Crédit Mutuel and Crédit Agricole rank 3rd and 5th respectively. Finally, even though they do not appear within the top-10, also Italy’s two major banks, Intesa Sanpaolo and UniCredit operate merchant acquiring services still in-house.

1.1.3 Card networks

Card networks (also known as card schemes) are the backbone of the electronic payments system, connecting and switching transactions between merchant acquirers and issuers, enabling electronic payment authorization, clearing and settlement (which are then operated by processors). Network providers set the rules all industry participants have to stand to and operate as a link between the issuing and acquiring ecosystems. Indeed, as there is no contractual relationship between the card issuer and the merchant or between the merchant acquirer and the cardholder, neither there is a contractual relationship between issuers and merchant acquirers, but they are both inextricably bound by uniform network rules. As part of this rules enforcement role, schemes help facilitate the exchange of money and fees between the card issuers and merchant acquirers and determine the fees that are paid to and by the issuers for all card transactions.

The European competitive landscape with regard to card schemes is controlled by the two undisputed market leading networks Visa and MasterCard, as is the overall global market2. Indeed, even if they are US-based, Visa and MasterCard are nowadays two multinational giants that dominate most of the European payments market both in terms of brand recognition and market penetration. The 3rd most popular international network, which also has presence in Europe is American Express, but it accounts for a very small portion of card transactions in Europe compared to Visa and MasterCard.

However, notwithstanding Visa and MasterCard leadership, in many European countries local card schemes with a reach limited to their domestic country coexists along with these two

2 Only exception represented by China, where the UnionPay network accounts for the majority of the market
international champions. Bancomat (local debit card scheme that routed ~€38bn domestic transactions in 2015) in Italy, Girocard in Germany, Cartes Bancaires in France and Multibanco in Portugal are only some examples of local card networks in European countries.

1.1.4 Issuing and acquiring processors

Issuing and acquiring processors provide the infrastructure and services that facilitate and enable electronic payments, and are the key link between issuers / acquirers and the card networks. The issuing processor processes payment transactions for the issuer, while the acquiring processor operates on behalf of the merchant acquirer. When a customer and merchant transact, the merchant processor initiates the payment authorization request. Apart from that, the role of both processors is basically the same and can be summarized in three core activities: card transactions authorization, clearing and settlement. Authorization consists in verifying, through the card network, that the purchaser party has sufficient funds, or available credit, for the transaction in question. Transaction clearing is about exchanges of financial data about the transactions among both processors and the card network. Finally, settlement is the actual transfer of funds from the cardholder’s account to the merchant.

For clarification purposes, we need to specify that merchant acquirers and acquiring processors are not the same thing, but can be the same entity. Indeed, these two terms are sometimes used synonymously, but they relate in fact to two distinct functions which are usually provided by separate entities but, in some cases, can be provided by the same entity.

Card payments processing is a pure back-office, scale driven business, with processor not interfacing at all with the end customer (i.e. cardholders and merchants) but only operating on behalf of issuers and merchant acquirers. Therefore, even though some banks (especially in France) still operate processing services in-house, the prevalent tendency is for banks to fully outsource these activities to specialized players. The Italian case provides great evidence of this tendency, as the two leading banks both outsourced their processing business in 2016: in May, Intesa Sanpaolo sold its processing subsidiary Setefi, while in August UniCredit spun-off its processing activities and sold them to SIA, the Italian market leader in both issuing and acquiring processing.

Given the scalable and standardized nature of the business that does not require customization, there usually are only a handful of large players in each of the main European countries. For instance in Spain, all major banks (BBVA, Santander, Caixa, Banco Popular and many other) outsourced their processing activities in the country to Redsys, Spanish largest domestic payment processor. In Portugal, SIBS, a consortium owned by 27 domestic banks, operates processing
activities on behalf of all its shareholders that represent almost the whole Portuguese banking system. In Italy, the already mentioned SIA and Setefi, along with the 3rd largest player Equens, account for a combined ~95% market share in both issuing and acquiring processing, with the remaining being spread among international companies with operations in the country. Finally, two more players need to mentioned in the European card payments processing ecosystem. They are both listed companies who operate as processors, but both of them are fully integrated players covering the whole payments value chain: the French-based Worldline and the Danish-based Nets, already mentioned among top European merchant acquirers.

This concludes our deep-dive within the card payments value chain, the most interesting part of the whole payments world. However, also the other segments illustrated by figure 3 above show very interesting features, so it is better to first get an overview of the key players in those as well, before going more in depth with the analysis of sector trends and dynamics.

1.1.5 Terminal providers

Terminal providers design and manufacture the devices and systems serving as the key infrastructure of the payments industry. Physical POS and ATMs are the two core terminals in relation to payments, with mobile POS\(^3\) significantly growing over the last few years but accounting for a still small part of the overall POS pool. Historically, terminal providers earned “one-time” hardware revenues from the sale of systems to acquirers, merchants and distributors, but terminal providers are increasingly branching out into service and maintenance areas, allowing them to earn recurring revenues.

As per the terminal providers competitive landscape, the two multinationals VeriFone (US based) and Ingenico (French based) are the two global market-leading POS providers, holding ~48%\(^4\) global market share, with Ingenico being the undisputed market leader with ~30% market share and VeriFone accounting for the remaining 18%. This is reflected also at European level, where, for geographical reasons, Ingenico’s dominance is even more unchallenged. With regard to the ATM world, instead, the European ecosystem is again dominated by a US-based giant, that is Diebold. The company, that already had a strong European footprint, further strengthened its presence in the area with the acquisition of the German Wincor Nixdorf in November 2015 and is now the largest ATM manufacturer in Europe as well as in the USA.

---

\(^1\) Devices that interact with smartphones or tablets to transform the mobile device into a POS for payments acceptance

\(^4\) As of 2014 according to The Nilson Report
given that 1 out of 3 ATMs globally is provided by the newly created Diebold-Nixdorf combined entity\(^5\).

### 1.1.6 Automated clearing houses

An automated clearing house (“ACH”) is an electronic network that facilitates large financial transaction between financial institutions and operates key services for the banking industry such as interbank clearing and settlement. An ACH does not process everyday customers’ purchases but large-volume transactions such as payrolls, direct deposit, credit transfers, direct debits and mortgage loans.

At a European level, the largest ACH is the CORE platform operated by the French company STET, with a \(\sim 52\%\)\(^6\) market share of the Euro transactions exchanged in clearing systems and the largest market share of all European currencies transactions. However, the already mentioned Italian processor SIA, the French Worldline, the Danish Nets and the Swiss SIX also offer ACH services within their offering portfolios.

Anyway, due to its very standardized nature, the ACH business is way less dynamic than the card payments one, and experienced less innovation and a way less intense M&A activity over the last few years.

### 1.1.7 Convenience payments operators

Convenience payments include payments of bills and utilities, top-ups of mobile phones, pre-paid cards, pay-TV cards and other payments of this kind. They are usually not performed through the traditional payments channels such as banks and financial institutions, but through alternative channels such as bars, tobacconists and convenience stores. However, the relevant players for the payments industry are not the convenience stores themselves, but the operators who provide them the hardware and software infrastructure to perform this sort of payments. This may seem (and it actually is) a relatively small slice of the overall payments sector, but it is a segment with high growth potential nevertheless, as it is the payment channel of choice for many customers and for all the unbanked and under-banked population who does not own a traditional bank account. Moreover, customers like the convenience channels because of its widespread network (a bar or a tobacconist can be found at every street’s corner), long opening hours compared to banks and post offices and way shorter waiting times than the traditional payments channels.

---

\(^5\) According to Diebold-Nixdorf September 2016 investor presentation

\(^6\) According to STET 2016 presentation brochure “Doing more for European banks”
Therefore, even though not many M&As were observed in this business in the last few years, this segment is expected to shortly start to trigger the appetite of many investors and of payment companies operating in other parts of the value chain.

Among the key European players in this business, we can find the UK company Paypoint and the US-based Euronet, that enjoys a strong presence in the European market as well as in the US one. Apart from that, the European convenience payments market is very fragmented, with relatively small domestic players in each country and very few companies integrated internationally. We can take Italy as a reference, where the market is dominated by three domestic players with no international exposure: the gaming companies Sisal and Lottomatica\(^7\), that provide also convenience payments services within their portfolio offerings, and Banca ITB, an on-line innovative bank that provides ad-hoc payments solutions for tobacconists only.

1.1.8 On-line payments solutions providers

On-line payment (“e-payment”) solutions comprehend e-commerce and m-commerce services. E-commerce relates to purchases performed through the internet rather than at the point of sale, while m-commerce includes all the payments executed through smartphones and mobile devices. With regard to e-commerce, the key players to be identified are the so called “gateway providers”, the digital equivalents of physical terminals in a traditional card transaction. They capture on-line transactions, translate them to the proper message format and distribute them to the designated network. Gateway providers include retail gateways that connect e-commerce transactions to merchant acquirers, and also wholesale gateways that interface directly with merchants and merchant processors. The most popular gateway provider worldwide is the US-based PayPal, that is also the most widespread known and commonly used in Europe. A good example of gateway providers that directly interact with merchants at the point of sales also is given by the Dutch company Adyen, a FinTech unicorn founded in 2006 that raised $270m in a round of founding last year resulting in a $2.3bn valuation.

The m-commerce world, instead, is relatively new compared to the broader e-commerce and therefore way more various and prone to innovation. We already mentioned mobile POS, but they are only a small part of the mobile payments world. Two main innovations in this segment recently started a significant disruption of the business: digital wallets and instant payments.

Digital wallets, such as Google Wallet or Apple Pay, are systems that securely store bank account information and allow customers to make quick and secure purchases through apps for smartphones or other mobile devices. Instant payments, according to the Euro Retail Payments

\(^7\) Currently 100% owned by the UK-based International Game Technology, but operating in Italy through the Lottomatica brand only
Board (ERPB), are defined as “electronic retail payment solutions available 24/7/365 and resulting in the immediate or close-to-immediate interbank clearing of the transaction and crediting of the payee’s account with confirmation to the payer (within seconds of payment initiation). This is irrespective of the underlying payment instrument used (credit transfer, direct debit or payment card) and of the underlying arrangements for clearing (whether bilateral interbank clearing or clearing via infrastructures) and settlement (e.g. with guarantees or in real time) that make this possible”. The Italian start-up Satispay and Jiffy, service provided by the above mentioned SIA, are just some examples of players providing this kind of services in Europe.

With these new methods, customers can make peer-to-peer money transfers and pay in-store or on-line through mobile devices with no need of use their credit card, as all their accounts information are stored by the mobile payment service provider.

~

The concludes our excursion over the key players in the payments industry. The description above is not 100% complete, as the sector is so fragmented and dynamic that it is, as a matter of fact, not possible to cover every single aspect of it. Nevertheless, it is a quite accurate analysis that provides us with a good background to go further in depth in the analysis of the industry recent trends and expected developments.
1.2 European payments market key performance indicators

The European payments industry faced an high growth in the recent years and presents strong expansion opportunities in the coming years thanks to the secular shift away from cash and banks disintermediation. This section aims to give evidence of these features through an overview of the main sector’s key performance indicators, i.e. number of financial cards (credit, debit and pre-paid cards) in circulation, number and value of card transactions, number of POS terminals and ATMs and e-commerce volumes.

As we will see, three main results emerge from this analysis:

1. Even though most of the sector’s key performance indicators faced an important growth over the last 10-15 years, Europe remains a largely non homogenous payment market with most of its countries still being underpenetrated both in terms of cards usage and on card transactions per capita.

2. Most of European countries lag significantly behind a more mature market such as the USA in terms of payments industry development. Card payment penetration rate\(^8\) in Europe was 36% in 2016, consistently lower than USA 44% level.

3. In terms of expected growth, however, forecasts for Europe are in-line with the ones for the USA, with some of the key European countries expected to outperform the USA in terms of card transactions and e-commerce volumes growth.

From now on, we will mostly focus on card payments rather than on the whole value chain as described below, as they represent the most interesting segment of the overall industry.

1.2.1 Historical evolution and forecasts of key performance indicators

As a starting point for this analysis, and before analyzing each of the above mentioned key performance indicators and trends more in depth, it is better to show some features of the payments sector at a more general and macro level.

We can start by taking a look at figure 6, that shows the historical evolution since 2002 and the forecasts until 2020 of European GDP and card spend growth (values are indexed to 100 for comparison purposes).

---

\(^8\) Computed as card spend over total consumers’ spend according to Euromonitor data
As the figure shows, card spend has shown macro immune characteristics, outgrowing GDP by ~2.5 times from 2002 until 2015. Indeed, card spend observed a 2002-2015 CAGR of 8%, vs a 3% one for GDP. This historical trend is then set to continue as the expected CAGR 2016E-2020E are 5% and 3% for card spend and GDP respectively. Definitely, card spend is expected to benefit from uplifts in consumers’ spending as the overall European economy recovers from a period of sluggish growth.

However, the above results do not surprise if look at the evolution and forecast of the main payments key performance indicators over the same time period. Figures 7,8 and 9 below illustrate the number of financial cards in circulation, card transaction value and number of card transactions. Figures 10 and 11 instead show trends for two additional payments key performance indicators such as POS terminals and ATMs, however only historical values from 2004 until 2016 and no forecasts are available for these two parameters.

We can analyze each of this indicator separately, but just by looking at the figures at a first glance we can get an understanding of how this business grew in the last years and how it is expected to continue to do so in the following ones.
Financial cards (credit, debit and pre-paid cards) in circulation in Europe were only 829 million in 2002, and they more than doubled in just 10 years reaching ~1,740 million in 2012. This growth was less intense in the last 3 years, but the outstanding stock of cards in Europe always increased year-on-year and was ~1,850 million in 2016, the latest actual figure we have. This reflects in a 6% 2002-2016 CAGR. This growth trend is then expected to continue in the next three years, with the number of cards in circulation expected to go above 2 billion in 2020 (2% expected CAGR 2017E-2020E).
Same tendencies arise from figure 8, that show the evolution of card transaction value, in Euro billion. This is nothing but the total spend for credit, debit and pre-paid card transactions. Again, in just 10 years from 2002 card spend in Europe more than doubled from €1,297bn to €2,707bn. 2016, that is the latest actual figure for this parameter as well saw a total card transaction value of €3,485bn, reflecting a 7% 2002-2016 CAGR. Indeed, over the considered time frame card spend grew steadily over the whole period, often at double-digits year-on-year, with just a few years of stagnant growth in 2008-2009 due to the global financial crisis. Again, current forecasts predict a continuation of this trend, with card transaction value expected to exceed €4 trillion by 2020 (5% expected CAGR 2017E-2020E).

Not surprisingly, we observe an important growth also if look at the number of card transactions rather than their value. However, we can note an important and interesting feature by combining figures 8 and 9. Indeed, both card transaction value and the number of card transactions increased since 2002, but the latter outgrew the former with a 11% CAGR 2002-2016 (vs 7% as described above) and is expected to continue to do so in the next years with a forecasted CAGR 2017E-2020E of 9% (vs 5%). This decline in the average value of card transaction is another feature that underlines the increase in cards usage, as cards are more and more being used for small-value transactions (e.g. supermarket and restaurants bills, taxis, and so forth) that have traditionally always been paid in cash. This highlights not only an overall increase in card acceptance by small stores, but also a change in consumers’ preferences towards card payments.
Moreover, it reflects an increase in demand for cards among people of all ages, while in the past only adults were used to perform payments by card. Indeed, nowadays it is much easier for young people to open a bank account than it was some years ago and pre-paid cards became very popular and widespread among teenagers. On the back of this, the number of card transactions in Europe rocketed in the last years from 23 billion in 2002 up to 103 billion in 2016 and is expected to reach ~150 billion in 2020.

**Figure 10: number of ATM in Europe (’000)**

![Graph showing the number of ATM in Europe from 2004 to 2016](image)

*Source: Euromonitor as of November 2016*

Figure 10\(^9\) that shows, in thousands, the number of ATM in Europe from 2004 until 2016, represents a slight shift away compared to the above figures. In fact, even though the number of ATM in Europe increased from ~340k in 2004 to ~650 in 2016 (5% CAGR 2004-2016), it faced a decrease in the last three years (~2% CAGR 2014-2016). However, this is not due to a slowdown of the payments sector but to rationalization and cost-cutting strategies characterizing the European banking sector in the last few years. Indeed, most of the ATMs in Europe are bank-operated and therefore their number is decreasing as more and more banks recently seek efficiency through the closure of branches. This goes hand to hand with the above mentioned trends that we will develop later on of banks outsourcing parts of their payments value chain to specialized players. Moreover, the reduction in ATMs is also related to the recent so called “war on cash” portrayed by several Governments, that are taking measures to “weaken” cash infrastructure as a tool to fight black economy.

---

\(^9\) Figures based on 19 European countries (Czech Republic, Hungary, Poland, Romania, Russia, Ukraine, Austria, Denmark, France, Germany, Greece, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Turkey, UK)
Figure 11 shows instead, in thousands, the historical evolution of POS terminals in Europe\textsuperscript{10} from 2004 until 2016. Unlike ATMs, POS are not directly related to banks and bank branches as they are sold or leased to merchants to allow them to accept card payments. Therefore, we can see for the figure that the decreasing trend observed since 2014 for ATM is not reflected in POS, whose number actually boosted in the last years more than it did in the previous decade (8\% CAGR 2013-2016). The overall number of POS in Europe was \~15 million in 2016, more than double of the 2004 stock of \~7 million terminals (7\% CAGR 2004-2016).

Along with figures 8, 9 and 10, that show trends from the cardholders’ side of the payments ecosystem, figure 11 is important to understand how the payment sector developed in the last years from the merchants’ side also. Indeed, the growth of the card payments industry in the last 10-15 years characterized both the issuing and acquiring ecosystems described in the previous section and the figures shown in this section give great evidence of this trend.

\textsuperscript{10} Figures based on 19 European countries (Czech Republic, Hungary, Poland, Romania, Russia, Ukraine, Austria, Denmark, France, Germany, Greece, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Turkey, UK)
1.2.2 European and US payment markets side by side

Notwithstanding the growth in the last few years, Europe remains a largely non homogenous and fragmented market with regard to payments. In many European countries we observe a very poor payments infrastructure and a low card acceptance score by merchants.

In order to analyze these features more in depth, we can compare the European ecosystem with a more mature payments market such as the USA. However, by simply comparing the USA with Europe as a whole we would not take into account countries differences among different European countries and would not consider the fact that many European states are not at all as developed as the USA both technologically and economically, therefore our results might be inflated. However, to overcome this problem we will focus our attention on the top-5 largest European countries in terms of card spend, that represent also the most important and better developed European economies.

Figure 12 below shows us these top-5 countries and ranks them in terms of total card spend in 2016, in Euro billion. These countries give us a good proxy for the overall European market as they account for ~60% of the overall European card spend.

As we can see, United Kingdom dominates the European payment landscape with €919bn of card transactions volume in 2016, accounting for 26% of the corresponding figure at European level. The other four countries are France, Germany, Italy and Spain.
In the remaining of this section, we will compare these 5 countries with the USA in terms of some of the key performance indicators shown above (i.e. number of cards in circulation, card transactions value and number of card transactions). For comparison purposes, we will use per capita figures rather than absolute ones, given the large difference in size between the USA and these five countries. Finally, we will compare them with the USA also in terms of expected growth of the payments sector, by using forecasts for card spend and e-commerce volumes as sample parameters.

The first indicator we analyze is the number of card transactions per capita, as shown by figure 13 below.

![Figure 13: card transactions per capita in 2016](image)

As we can see, in the USA in 2016 there was an average of 319 card transactions per capita, that is more than two times the European average. UK and France are the only two countries that can be closely compared to the USA in terms of this indicator, but are still consistently below US levels. Spain, Italy and Germany lag significantly behind the USA in terms of cards usage, as cash remains the most common and widespread payment method in these countries.
As a consequence, same features are observable if we look at the average card spend per person in 2016. USA still dominates with €15,081 of card transaction value per capita over the year, and the gap with Europe is even larger than before, given an European average of €4,219. Again, UK is the 1st country among the European ones in terms of this parameter also, and the gap with the USA is very small. However, as we saw in the previous section, this result, combined with what figure 13 shows, simply means that US people tend to use cards for transactions of a smaller average value compared to the UK. This is another evidence of the fact that the US payments market is fairly more mature than the European one in general and the UK one particular.
Finally, figure 15 compares top-5 European countries and the USA in terms of number of financial cards in circulation per capita in 2016. In this case, the results are probably even more astonishing than they were for the indicators previously considered. Indeed, in Europe we observe an average of just two cards per person, figures exactly reflected by France, Spain, Italy and Germany. UK once again is the “black dawn” of the European payments industry, with results way above the European average and 6 cards per capita in 2016. However, also UK figures are well below US ones, where the cards per capita in 2016 were 11.

From all the above figures, it is clear how the European payments market is far less developed than the US one and delivers a way lower card acceptance score. The United Kingdom is the only country that gets close to the USA as per payments industry development but, even if it dominates by far its four considered peers, it ranks below the USA all the same. With regard to this, we must mention that the Nordic countries (i.e. Norway, Finland and Sweden) also give a great example of well-developed payments market within the European ecosystem. However, with less than €100bn each of card transaction value in 2016 they are relatively too small to be considered material at European level.

However, the payments environment is very dynamic and fast-changing, and the European market in particular is undergoing a period of intense changes, driven by some common forces that are re-shaping the industry at global level (e.g. the above mentioned rise of FinTech and technological innovations) as well as some particular features at European level, such as several ground-breaking regulatory initiatives that we will see later on in greater details. As a consequence, the observed gap between European countries and the USA is expected to narrow consistently in the next few years. Industry key performance indicators forecasts confirm this thesis.

Figure 16 below shows the expected card spend growth in Europe top-5 countries and the USA.
As we can see, expected growth in Europe is in line with the one in the USA, with Italy and Spain expected to outgrow the USA over the 2016-2020E time period. Furthermore, it is interesting to notice that these two countries are those that currently lag behind the USA the most as per payments industry development, while more mature markets such as the UK and France are expected to grow at a slower pace in the next few years. It is therefore clear how the payments industry in some European countries is at an earlier stage of development compared to the US one. In this countries, industry penetration is certainly lower but growth potential is higher.
Figure 17 then analyzes another aspect of the payments industry that we did not directly consider so far, that is consumers’ internet retailing (i.e. e-commerce) spend. Again, we can see that growth expectation for this parameter in Europe are basically in line with those in the USA. It is true that expected CAGR for the USA in this case is higher than the corresponding figure for Europe, but this is also due to the fact that e-commerce is a relatively new part of the payments value chain compared to credit and debit card payments, therefore also in the USA this market segment is at an earlier stage of development than the overall payments sector. This also explain the double-digit growth rates expected in all the countries considered. Also in this case, we can observe that Italy and Spain dominate the European landscape in terms of growth, for the same reasons as the card spend case. Italy in particular shows extraordinary growth potential and is expected to significantly outgrow both Europe and the USA.

This concludes our journey over the historical evolution of the payments industry key performance indicators and their expected developments in the next few years. As we pointed out at the beginning of the section, the three main feature that arise from this analysis are (i) the fragmented shape of the European payments industry, despite the important growth experienced in last 10-15 years; (ii) the fact that European countries are currently at an earlier stage of development compared to a more mature market like the USA and (iii) the great growth potential for Europe reflected by key performance indicators forecasts, that will eventually narrow the gap with the USA. In addition to that, what also emerges is how the European payments industry is ongoing important changes that will spur growth and will re-shape the overall sector in the next few years.
1.3 Recent regulatory initiatives

European payments market cross-border expansion has been difficult in the past due to rules and arrangements on a country by country basis, whereas other geographic areas such as the USA gave great evidence of the benefits of a uniform regulatory environment for the economy. Electronic payments in Euro are mostly still organized at national level, with varying technical standards, different payment instruments and separate processing infrastructures. This results in fragmentation, lower efficiency, loss of economies of scale and less competition at EU level.

This is not only detrimental for the payments industry, but for the European economy as a whole. Indeed, industry research suggests that a successful increase in e-payments by 10% per annum would cause a reduction of the shadow economy by 5% over 4 years. As figure 18 below shows, there is a clear negative correlation (-0.7) between the size of a country’s shadow economy and its e-payments\textsuperscript{11} penetration.

For this reason, over the past few years, promoting electronic payments has been a key layer for Government action/tax recovery and the best tool to fight black economy. Key Governments’ initiatives of this kind include the Italian Government so-called 2014 “POS obligation Decree”, that obliges Italian merchants and self-employees businessmen to accept e-payments for

\textsuperscript{11} All electronic payment transactions are considered, not only card transactions
transactions above €5 and the Greek Government recently announced plan of tax deductions for card users and mandatory cards acceptance for companies founded in 2016 and in selected high tax-evasion risk sectors. Furthermore, several countries including Spain, France, Turkey, Greece, Italy, Sweden, Norway and the Netherlands imposed caps on cash payments and required merchants to refuse cash as a payment form for high value transactions to compel the use of cards. Other initiatives at national level include tax breaks (e.g. lower VAT) for card payments, support to investments in POS terminals and actions to reduce the use of cash related to the already mentioned “war on cash” (e.g. shrink ATM network).

However, even though all these initiatives are certainly important and good for the payments industry development, they do not solve the problem of industry fragmentation among member states as they are all initiatives portrayed at national level. What Europe really needed was an the creation of a pan-European payments market, fully integrated and interoperable among member states. From this viewpoint, three main regulatory initiatives at European level that were either recently undertaken or are in the pipeline for the very next years are really re-shaping the European payments landscape: the Multilateral Interchange Fees (“MIF”) regulation, the Single Euro Payments Area (“SEPA”) initiative and the Revised Payment Services (“PSD2”) directive.

In this section, we will give an overview of the main features of the three regulatory initiatives above, analyze their implications for the key industry players and illustrate how they could be beneficial to the European payments ecosystem and economy as a whole.

1.3.1 MIF Regulation

In March 2015, the European Parliament approved the proposal by the European Commission targeting multilateral and unique interchange fees among all EU countries. The main change introduced by this new regulation, (EU Regulation 2015/751, published on the 29th of April 2015), is the creation of a cap on interchange fees for financial cards transactions, but some other important measures were also undertaken.

Before going in depth with the analysis of the regulatory aspects, it is better to understand what interchange fees are and who will be the players most affected by the new rules.

According to the definition given by the above mentioned 2015/751 regulation: “Interchange fee means a fee paid for each transaction directly or indirectly (i.e. through a third party) between the issuer and the acquirer involved in a card-based payment transaction. The net compensation\(^\text{12}\) or other agreed remuneration is considered to be part of the interchange fee.

\(^{12}\) Total net amount of payments, rebates or incentives received by an issuer from the payment card scheme, the acquirer or any other intermediary in relation to card-based payment transactions or related activities.
(...) Interchange fees are usually applied between the card-acquiring payment service providers and the card-issuing payment service providers belonging to a certain payment card scheme. Interchange fees are a main part of the fees charged to merchants by acquiring payment service providers for every card-based payment transaction. Merchants in turn incorporate those card costs, like all their other costs, in the general prices of goods and services”.

Figure 1, that shows all the relevant fees involved in a typical card payment transaction, helps us to better understand this definition and place interchange fees within a typical card payment transaction flow.

As we can see from the figure, each time a consumer uses a credit, debit or prepaid card to make a purchase, the merchant acquirer pays a fee called “interchange fee” to the card issuer. Interchange fees are normally set by payment card networks or national banking communities. As the merchant usually incorporates the interchange fees in the price charged to consumers, the fees increase retail prices of goods and services. Thus, interchange fees are passed on to all consumers, even those who use other payment methods rather than cards.

Moreover, another issue with regard to interchange fees is that cardholders, who are unaware of the fees, are encouraged to use cards that generate higher fees. At the same time, card companies compete to attract issuers by offering them high interchange fees. These “reverse” market mechanisms drove fees up rather than down in the payments market. To quote once again the regulation, “Competition between payment card schemes to convince payment service providers to issue their cards leads to higher rather than lower interchange fees on the market, in contrast with the usual price-disciplining effect of competition in a market economy”.

Hence, the European Commission decided to impose a cap on interchange fees, “to improve the functioning of the internal market and contribute to reducing transaction costs for consumers”.

- 32 -
This interchange fee cap was the main change introduced by the MIF regulation, however some other important measures were also undertaken. Below a short summary with the main highlights of all these new aspects and the related in force date.

4. **Interchange fee cap (in force since December 2015)**

Articles 3 and 4 of the MIF regulation set a cap on interchange fee for cross-border and domestic card transactions (0.2% for debit cards and 0.3% for credit cards). Transactions with commercial cards\(^{13}\), ATM withdrawals and transactions with payment cards issued by three party schemes\(^{14}\) are excluded from the regulation. These caps represent a significant decrease compared to pre-regulation interchange fee levels in most EU countries and are far below the overall European estimated pre-regulation average, as the below figure 20 shows.

![Figure 20: European I/C fees pre and post-regulation](source)

5. **Scheme-processors separation (in force since June 2016)**

Article 7 provides that card schemes and processors must be independent in terms of accounting, organization and decision making processes.

---

\(^{13}\) Cards limited in use for business expenses where payments made with this type of card are directly charged to the company's bank account

\(^{14}\) Scheme structure where the card company acts as both issuer and merchant acquirer (e.g. American Express)
6. **Co-badging (in force since June 2016)**

Article 8 prohibits cards schemes to prevent issuers from co-badging payments instruments and prevents them to impose fees or other obligation to PSPs for transactions carried out through their payment instruments where another scheme is used.

7. **Merchant pricing unbending (in force since June 2016)**

Article 9 sets new obligations for acquirers that must charge merchants with individual fees for different payment instruments and cannot charge blended merchant fees. Furthermore, acquirers are required to provide full transparency on merchant service fees.

8. **Limits on “Honor all cards” rule (in force since June 2016)**

Article 10 provides that schemes and PSPs cannot force merchants to accept all types of cards issued under the same brand and to favor a card scheme over another one.

9. **Steering rules (in force since June 2015)**

Article 11, the first rule in terms of entry in force date, states that schemes and PSPs may not prevent merchants from steering consumers to use preferred payment instruments.

Furthermore, Member States were requested to designate competent authorities empowered to ensure enforcement of such regulation by 9 June 2016 (e.g. Bank of Italy selected as the reference authority in Italy).

This regulation is expected to create a level playing field that will allow more competition and spur innovation in payments that is already taking off. It builds on competition investigations by the Commission and the National Competition Authorities, and in particular the Commission's proceedings against MasterCard and Visa, fined several times for keeping too high interchange fees at customers’ damage. As per the expected impact on the payments ecosystem and its key players, MIF regulation should help the payments industry move on from its old anti-competitive practices with benefits to merchants, consumers and payment providers.

As we already observed in figure 19 above, the players directly affected by interchange fees in a card payment transactions are issuers and merchant acquirers. For the latter, interchange fees represent a cost, while for issuers they are a source of income.
Impact of the interchange fee cap on issuers is expected to be relatively manageable, given interchange fees usually account for a relatively small portion of their revenues, e.g. 20% in Italy, 13% in France and 17% in UK as we can see from figure 21\textsuperscript{15}.

\textbf{Figure 21: Issuing revenues breakdown}

\begin{figure}
\centering
\includegraphics[width=\textwidth]{figure21.png}
\caption{Issuing revenues breakdown}
\end{figure}

\textit{Source: The Interchange Fee Regulation Competition policy brief, as of 2014}

Furthermore, several potential counterbalancing initiatives may be undertaken by issuers to smooth this negative effect on revenues. Some initiative of this kind include higher interest rates on outstanding cardholders’ balances, focus on commercial cards, not impacted by the regulation and currently under-penetrated and the increase of other kind of fees, such as on cash withdrawals at ATM. Indeed, some players already started to undertake countermeasures, for instance Société Générale, Crédit Mutuel and BNP will apply extra maintenance fees, Tesco, Capital One and RBS cut rewards schemes and PKO in Poland announced it will be raising fees on its customers accounts.

Merchant acquirers are instead likely to benefit by only partially passing through the effect of interchange fee reduction onto merchants, especially in countries where pricing structure remains attractive and more opaque given structural skewness towards the higher margin-generator and more fragmented SME segment (e.g. Italy, where SMEs account for \textasciitilde70\% of the overall merchant acquiring revenue pool).

Even though not directly affected, interchange fees have influence also on card schemes, in the sense that for them high fees are beneficial as they encourage issuers to issue more cards, and

\textsuperscript{15} US added as a reference point as it is not affected by the regulation
more issued cards means more transactions leading to more income. Therefore, they are likely to be penalized in the short term. However, the regulation will also increase efficiency of the European payments industry and interoperability among member states and is therefore expected to spur card payment penetration, which will result in more transactions all the same.

Also merchants and consumers are not directly affected by interchange fees but are impacted nevertheless, as merchant acquirers pass the interchange fee they pay on to merchants by imposing higher merchant fees, and merchants in turn do the same on customers through higher retail prices. As we already mentioned, this is sub-optimal not only for the card payment industry but for the whole economy as these higher retail prices are paid by all consumers, even the ones who do not pay by cards. Hence, both merchants and consumers will benefit a lot from the caps on interchange fees.

The overall expectation with regard to the MIF regulation is that even though some players such as issuers and schemes may be penalized by the interchange fee cap in the short-term, the overall system will benefit in the long run.

1.3.2 SEPA Initiative

According to the definition of the European Commission, “The Single Euro Payments Area (SEPA) is the area where citizens, business and public authorities can make and receive payments in euro under the same basic conditions, rights and obligations, regardless of their location. (...) SEPA will establish a set of uniform standards, rules and conditions for transactions in euro, allowing them to be processed as easily, safely and efficiently as operations within national markets. The objective of SEPA is to increase efficiency and competition so that high-quality and competitively priced electronic payment products exist throughout the whole of the EU. (...) SEPA only covers euro payments. Payments in non-euro currencies are unaffected”.

SEPA is an initiative of the European Banking Industry, strongly supported by both the European Commission and the European Central Bank, that aims at creating a pan-European, integrated market for electronic retail payments by abolishing national boundaries for payments in Euro, in order to consider the whole of the EU (plus some countries outside) as a single area with uniform rules and standards. It dates back in 2009 when the first regulation (Regulation (EC) 924/2009) was published, but the actual migration of member states to SEPA only started in 2012 with the Regulation 260/2012, that amended most of the aspects of the previous set of rules and set the deadline for member states to adopt SEPA requirements and to make domestic payments SEPA-compliant. A third regulatory proposal was then published on 1 February 2014,
the in force date of most of SEPA requirements, to amend some minor aspects of the 2012 regulation, but the main provisions of the SEPA initiative are those included in the 260/2012 text. Furthermore, in 2014 the European Payments Council, together with the Cards Stakeholders Group, published version 7.0 of the SEPA Cards Standardisation Volume, a document that defines a standard set of requirements to enable an interoperable and scalable card payments infrastructure across SEPA, based on international standards. Volume 7.0 was the first version of the document ready for market implementation, even though it is still under review and a new 8.0 version is expected to be published in March 2017.

Below a summary of the main highlights of SEPA from a regulatory point of view, regarding the payments methods most affected by SEPA, that are bank transfers and card payments.

1. **Bank transfers**

   Articles 4, 5 and 6 of the 260/2012 regulation set a standardization of rules across Europe, integrating all European countries into one common domestic market, including the phasing out of domestic bank transfer products in favour of a European standard. Such bank transfer products are direct debits and credit transfers. According to the regulation, direct debits are “national or cross-border payment service for debiting a payer’s payment account, where a payment transaction is initiated by the payee on the basis of the payer’s consent”. Credit transfers are instead defined as “national or cross-border payment service for crediting a payee’s payment account with a payment transaction or a series of payment transactions from a payer’s payment account by the PSP which holds the payer’s payment account, based on an instruction given by the payer”.

   As already mentioned, the migration to SEPA standards started in 2012, and member states were required to adopt the necessary requirements no later than February 2014 (even though a 6-month grace period was then allowed). October 2016 was instead the end-date for SEPA migration of non-Euro countries.

2. **Card payments**

   SEPA Cards Standardisation Volume defines a set of provisions for cards transactions standardization across SEPA. Such requirements are mostly functional, security-related and technical and refer to existing international standards. Following full SEPA migration, “consumers will be able and withdraw Euro cash throughout SEPA, with the same ease and

---

16 natural or legal person who holds a payment account and allows a payment order from that payment account or, where there is no payer’s payment account, a natural or legal person who makes a payment order to a payee’s payment account

17 natural or legal person who holds a payment account and who is the intended recipient of funds which have been the subject of a payment transaction
convenience as in their home country. They can benefit from wider acceptance of their cards within SEPA and more choice of cards than before. Cards standardization leads to increased security, transparency and indirect cost reduction. (...) A wider acceptance of cards across SEPA increases the business opportunities for merchants. They benefit from a more competitive acquiring and terminal markets and are able to choose which card scheme to accept and from which acquirer, without this choice being artificially constrained by legal, technical or procedural issues. (...) The card industry players can better plan ahead their investments”.

SEPA requirements implementation for card payments is still under way, given that, as we said, a final version of the volume regulating these aspect is not yet available. However, migration of member states to SEPA standards for cards has already started, as they were initially bounded to meet all requirements indicated by volume 7.0 within January 2017. Volume 8.0 will extend this implementation period, but some of the benefits of an integrated European card payment platform are expected to be tangible before the full migration.

The objective of SEPA is to increase efficiency and competition so that high-quality and competitively priced electronic payment products exist throughout the whole of the EU. Many are the benefits expected to be generated by this initiative. Indeed, it makes payments much faster, with electronic bank transfers in Euros reaching the beneficiary at the latest by the next business day. Furthermore, consumers are benefited in their everyday life as paying bills is significantly easier for European citizens including workers, students, holiday rentals, tourists and retirees living abroad. The impact on companies is even greater since they typically have more sophisticated payment arrangements than consumers. The benefits depend very much on a company’s size, how it operates and the nature of the industry in which it competes, but all businesses can enjoy common standards, faster settlement and simplified processing that improve cash flow, reduce costs and facilitate access to new markets. This results in a wider choice of payment services providers, faster and more efficient processes as well as greater transparency.

1.3.3 PSD2 Directive

PSD2 is a set of rules aimed at increasing competitiveness between payment providers in Europe by allowing PSPs to market and compete on the same level as banks, without the need for a high standard expensive banking license. Published in the official journal of the European Union on 23 December 2015, it amends the previous EU Directive 2007/64, known as PSD. This 2007 directive was the first regulatory framework at European level created to support the full development of SEPA and the creation of an integrated European payments market. It regulated
the information requirements, the rights and the obligations of payment services users, as well as the prudential requirements for entering the market of entities qualified to provide these services. However, PSD left a lot of open issues, such as a lack of standardization and interoperability of payment solutions and security systems, and many newly born payments players were still unregulated. Therefore, PSD2 was introduced to amend and complete the previous directive.

PSD2 is scheduled to enter in force in January 2018, with EU countries obliged to adopt and publish measures to comply with the directive within that date. It is expected to enhance consumer protection, promote innovation and improve the security of payment services. It represents a further step towards complete harmonization of the EU payments market, introducing some important new features, that can be summarized as follows:

1. **Access to payment account information**
   The directive sets stronger security requirements for PSPs and other players. For instance, banks that maintain customer’s payment account must give licensed third parties access to customers’ account information, provided the customer has given consent.

2. **Surcharging**
   Merchants will be banned from surcharging (i.e. add additional fee to a consumer's bill when he or she uses a card for payment) cardholders.

3. **Customer authentication**
   PSPs will be required to apply strong customer authentication when payers initiate an electronic payment transaction and cannot require payers to bear any financial consequences in case of failure.

4. **Introduction of new payment services**
   New services for cardholders and merchant will be introduced, i.e. Payment Initiation Services (“PISP”) and Account Information Service (“AISP”). PISP are defined by the regulation as services that “play a part in e-commerce payments by establishing a software bridge between the website of the merchant and the online banking platform of the payer’s account servicing payment service provider in order to initiate internet payments on the basis of a credit transfer”. AISP instead “provide the payment service user with aggregated online information on one or more payment accounts held with one or more other payment service providers and accessed via online interfaces of the account servicing payment service provider. The payment service user is thus able to have an overall view of its financial situation immediately at any given moment”. Such services will be beneficial as they offer a low-cost solution for both merchants and
consumers and provide consumers with a possibility to shop online even if they do not possess payment cards.

The purpose of this set of rules is to continue the development of an integrated single market by standardizing the rules for PSPs across Europe. Moreover, it aims at creating a regulatory framework for the increasing number of new market players that are entering the payments market and were up to this point unregulated (e.g. mobile wallets, providers of peer-to-peer payments), helping to strengthen the security of the system and ensuring a high level of competition and transparency towards consumers.

This concludes our overview of the most important regulatory initiatives at European level recently undertaken in the payments sector. The need for such initiatives originated from the evidence that the European payments market was extremely fragmented and rules and standards were too different from one country to another, penalizing innovation and the expansion of payment players beyond domestic borders. As a consequence, over the last five years, the evolution of European regulation enhanced interoperability of the payments ecosystem, lowered entry barriers and improved cross-border competition mainly through SEPA and MIF initiatives, with PSD2 expected to represent a further move in this direction in the next years. Furthermore, such regulatory initiatives meant to promote card usage are expected to benefit pan-European scale groups against pure domestic and captive players that are naturally size constrained.

In conclusion, we can say that progressive European harmonization, providing new players smoother access to a still under-penetrated market, is under way. This is expected to significantly re-shape the European payments landscape, promoting card payments penetration through an increase in efficiency and leading to great industry consolidation.
Before moving on with the next chapters of this paper, that will let us get a more clear picture of what is going on within the European payments sector through some practical market references, it is good to point out some another important features of the payments market that will help us going forward.

First, it is good to depict what are the key competitive strengths in this business, both in terms of what makes the payments sector attractive for investors and of what makes a company better than its competitors. With regard to the first aspect, one reason is indeed the significant growth this business is facing recently, that is expected to further boost in the next few years, as we observed in the previous chapters. Moreover, another key aspect is that the payments business is characterized by stable, recurring revenues. Indeed, the need for payments is not seasonal, and payments companies can usually benefit from long term contracts with cardholders, merchants and banks that grant them steady cash inflows.

In relation to competitive strengths that a company can enjoy over its competitors, we can identify two core of those: scale and technology. Indeed, businesses such as merchant acquiring or processing are standard, scalable business where usually largest companies tend to be also the most efficient one. Moreover, technological expertise plays an increasingly key role in driving a company’s success, as the overall payments sector is undergoing an impulse of strong, tech-driven innovation. Not surprisingly, these two aspects are also the main drivers of M&As in the payments sector from the buyers’ side, as we will see in the next chapter in greater detail. Moreover, technology is also the focal point of R&D spending for payments companies, both in terms of developments of innovative products such as mPOS or digital wallets and of investments to constantly update their IT infrastructures, to be able to route payments transactions in always faster and more secure ways.

Along with these two key strengths, we can then identify another very important differencing factor for payments companies: their ability to win and maintain long-term, exclusive, contracts with big clients. Indeed, especially in the back-office segments of the payments value chain (e.g. card payment processing), the number of transactions managed by a PSP depend on the number of transactions managed by its merchant acquiring or card issuing clients. Hence, the ability to secure long-term relationship with market leading entities in these segments automatically grants a market leading positioning to the PSP as well.

In conclusion, we can say that another important features that makes the payments business quite attractive for investor is the fact that it not a too-risky market. Indeed, the non-seasonal shape of the business makes payments companies quite stable, along with the fact that payments, even though the way in which they are performed change, never become obsolete. As a proof of that,
most of the largest payments companies tend to show very low betas\textsuperscript{18}, reflecting this low-risk profile of the market. However, with regard to this aspect we must say that the situation may slightly change in the following years. Indeed, the payments business is becoming more and more tech-related and hi-tech giants (e.g. Apple with Apple Pay, Google with Google Wallet) are progressively trying to enter this market, potentially disrupting significant parts of the value chain. This may increase the overall riskiness of the market, as technological innovation always implies risks. Indeed, several times in the past a period of intense innovation determined market weakness and was followed economic slowdowns or a financial crisis (e.g. the Dotcom crisis in the early 2000s). Anyway, currently a financial crack scenario for payments companies seems quite unlikely, and we can safely say that the payments market can overall be still considered as a low-risk environment.

\text{" ~\text{"}

This concludes our introduction to the payments market in general and our overview of some key, high-level features of the European payments ecosystem. In the following chapters we will look at this market more in detail and from a more practical viewpoint, especially in terms of M&A and Equity Capital Market activities of the most important payments companies.

\textsuperscript{18} E.g. Ingenico has a beta of 0.75 as of December 2016 according to Bloomberg
Chapter two: M&A activity in the European payments sector

As mentioned in the previous chapter, the European payments market is still quite fragmented. It features over 50 PSPs and over 20 domestic networks. Most players are focused almost entirely on their home market with very few having critical European scale. In the majority of countries, the market is dominated by domestic champions.

However, in the last few years, multiple tailwinds, such as the mentioned rise of FinTech and new regulations paving the way for harmonized and interoperable markets, begun to spur consolidation in the European payments sector, and are expected to continue to do so at an increasingly faster pace in the future. Pan-European leading players are slowly starting to emerge.

Figure 22 is a great starting point to analyze this trend towards consolidation. It shows the value, in Euro billion, and number of deals\(^\text{19}\) in the European payments sector from 2009 until 2016. As we can see, the overall deal value and the number of deals in the last three years are higher than in the previous ones. This highlights the fact that cross-border consolidation in the European payments sector, even though still at an early stage, is clearly taking off.

**Figure 22: Deal volumes in the European payments space**

As the pace of change in the payments industry accelerates, it has became increasingly evident that payments business requires resources and commitment to make regular significant

\(^{19}\) Including both M&A deals and IPOs, excluding Visa / Visa Europe deal
investments in IT and technological capabilities aimed at efficiency, scale and innovation. Furthermore, it is also more and more clear that ownership structures where banks act at the same time as owners and customers of the payments business is suboptimal.

From these two features, it is clear how sector consolidation with few large and independent players is to bring efficiency in the payments sector.

This chapter aims to analyze this consolidation trend started in the past few years, along with other tendencies observed within the European payments sector recently. We will do so by looking at the most relevant M&A deals in the European payments space, analyzing both their drivers and the strategic rationale for the players involved. We will also observe which parts of the payments value chain are the most active in terms of M&A and try to depict common features for each of the key value chain segment. Finally, we will try to predict what the next steps for the European payments sector will be, by comparing it once again with the US market, that is more developed and mature as it already experienced a massive consolidation process.
2.1 Roadmap towards recent key deals in Europe

As we already mentioned, M&A activity in the payments space is at an all-time high in Europe, in terms of both deals number and value. As a starting point to analyze such M&A activity, we can look at table 1, that provides us with a very detailed panel of M&A transactions in the European payments sector since 2008. The table aims to give us a first understanding of the deals we will be referring to, in terms of size, targets activity and implied multiples. Therefore, it only includes deals for which sufficient disclosure was available (e.g. deal value, stake acquired, etc.) as its only sources are press articles and companies’ press releases publicly available and does not include all M&A transactions in the European payments sector in the years considered. However, the panel is complete enough to show us some interesting dynamics.

Table 1: Transactions in the European payments space

<table>
<thead>
<tr>
<th>Announcement date</th>
<th>Target / Vendor</th>
<th>Target region</th>
<th>Target business highlights</th>
<th>Acquirer</th>
<th>Stake acquired</th>
<th>EV (€m)</th>
<th>EV/EBITDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 16</td>
<td>Bassilichi</td>
<td>Italy</td>
<td>POS &amp; ATM management</td>
<td>ICBPI</td>
<td>100%</td>
<td>230</td>
<td>10.0x</td>
</tr>
<tr>
<td>September 16</td>
<td>SIA</td>
<td>Italy</td>
<td>Processing &amp; ACH</td>
<td>Poste Italiane</td>
<td>15%</td>
<td>2,000</td>
<td>13.0x</td>
</tr>
<tr>
<td>August 16</td>
<td>UniCredit</td>
<td>Italy / Germany / Austria</td>
<td>Card processing</td>
<td>SIA</td>
<td>100%</td>
<td>500</td>
<td>12.0x</td>
</tr>
<tr>
<td>July 16</td>
<td>Vocalink</td>
<td>UK</td>
<td>Processing and e-payments</td>
<td>MasterCard</td>
<td>92%</td>
<td>1,023</td>
<td>11.0x</td>
</tr>
<tr>
<td>May 16</td>
<td>Setefi</td>
<td>Italy and CEE</td>
<td>Processing</td>
<td>Advent, Bain Capital, Clessidra</td>
<td>100%</td>
<td>1,035</td>
<td>11.0x</td>
</tr>
<tr>
<td>April 16</td>
<td>Barclaycard</td>
<td>Spain / Portugal</td>
<td>Issuing, acquiring &amp; processing</td>
<td>Varde / Banco Popular</td>
<td>100%</td>
<td>1,300</td>
<td>9.0x</td>
</tr>
<tr>
<td>December 15</td>
<td>Banco Popular</td>
<td>Spain</td>
<td>Merchant acquiring</td>
<td>EVO Payments</td>
<td>50%</td>
<td>189</td>
<td>11.0x</td>
</tr>
<tr>
<td>November 15</td>
<td>Fintrax</td>
<td>France</td>
<td>Processing</td>
<td>Eurazeo</td>
<td>90%</td>
<td>550</td>
<td>14.1x</td>
</tr>
<tr>
<td>November 15</td>
<td>Wincord Nixdorf</td>
<td>Germany</td>
<td>Terminals</td>
<td>Diebold</td>
<td>100%</td>
<td>1,763</td>
<td>17.3x</td>
</tr>
<tr>
<td>November 15</td>
<td>PaySquare / Equens</td>
<td>Netherlands</td>
<td>Merchant acquiring &amp; e-payments</td>
<td>Worldline</td>
<td>100%</td>
<td>72</td>
<td>12.5x</td>
</tr>
<tr>
<td>November 15</td>
<td>Visa Europe</td>
<td>UK</td>
<td>Network</td>
<td>Visa</td>
<td>100%</td>
<td>16,500</td>
<td>27.3x</td>
</tr>
<tr>
<td>June 15</td>
<td>ICBPI</td>
<td>Italy</td>
<td>Merchant acquiring &amp; co-issuing</td>
<td>Advent, Bain Capital, Clessidra</td>
<td>92%</td>
<td>2,150</td>
<td>11.0x</td>
</tr>
<tr>
<td>March 15</td>
<td>Skrill</td>
<td>UK</td>
<td>E-payments</td>
<td>Optimal Payments</td>
<td>100%</td>
<td>1,111</td>
<td>9.3x</td>
</tr>
<tr>
<td>September 14</td>
<td>Global Collect</td>
<td>Netherlands</td>
<td>E-payments</td>
<td>Ingenico</td>
<td>100%</td>
<td>820</td>
<td>16.4x</td>
</tr>
<tr>
<td>Date</td>
<td>Company</td>
<td>Country</td>
<td>Segment</td>
<td>Target Company</td>
<td>Percentage</td>
<td>Purchase Price</td>
<td>Multiples</td>
</tr>
<tr>
<td>------------</td>
<td>------------------</td>
<td>---------</td>
<td>------------------------------</td>
<td>---------------------------------</td>
<td>------------</td>
<td>----------------</td>
<td>-----------</td>
</tr>
<tr>
<td>August 14</td>
<td>Banco Popular</td>
<td>Spain</td>
<td>Issuing, acquiring &amp; processing</td>
<td>Varde</td>
<td>51%</td>
<td>1,000</td>
<td>9.9x</td>
</tr>
<tr>
<td>March 14</td>
<td>Nets</td>
<td>Nordics</td>
<td>Acquiring &amp; processing</td>
<td>Advent, Bain Capital, ATP</td>
<td>100%</td>
<td>1,945</td>
<td>11.0x</td>
</tr>
<tr>
<td>December 13</td>
<td>SIA</td>
<td>Italy</td>
<td>Processing &amp; ACH</td>
<td>CDP Equity, F2i, Orizzonte</td>
<td>59%</td>
<td>765</td>
<td>8.0x</td>
</tr>
<tr>
<td>November 13</td>
<td>Bank Pekao</td>
<td>Poland</td>
<td>Merchant acquiring</td>
<td>EVO Payments</td>
<td>66%</td>
<td>129</td>
<td>9.2x</td>
</tr>
<tr>
<td>August 13</td>
<td>Skrill</td>
<td>UK</td>
<td>E-payments</td>
<td>CVC</td>
<td>75%</td>
<td>600</td>
<td>12.0x</td>
</tr>
<tr>
<td>December 12</td>
<td>Banco Popular</td>
<td>Spain</td>
<td>Merchant acquiring</td>
<td>EVO Payments</td>
<td>50%</td>
<td>85</td>
<td>8.5x</td>
</tr>
<tr>
<td>October 12</td>
<td>Santander</td>
<td>Spain</td>
<td>Merchant acquiring</td>
<td>Elavon</td>
<td>51%</td>
<td>166</td>
<td>16.6x</td>
</tr>
<tr>
<td>August 12</td>
<td>Luottokunta</td>
<td>Finland</td>
<td>Processing</td>
<td>Nets</td>
<td>100%</td>
<td>182</td>
<td>7.5x</td>
</tr>
<tr>
<td>June 12</td>
<td>Paysafecard</td>
<td>Austria</td>
<td>E-payments</td>
<td>Skrill</td>
<td>100%</td>
<td>140</td>
<td>10.8x</td>
</tr>
<tr>
<td>December 11</td>
<td>Oberthur</td>
<td>France</td>
<td>Card security</td>
<td>Advent</td>
<td>90%</td>
<td>1,150</td>
<td>8.2x</td>
</tr>
<tr>
<td>November 11</td>
<td>Point</td>
<td>Sweden</td>
<td>E-payments</td>
<td>Verifone</td>
<td>100%</td>
<td>770</td>
<td>11.5x</td>
</tr>
<tr>
<td>January 11</td>
<td>Equens</td>
<td>Italy</td>
<td>Processing</td>
<td>Equens SE</td>
<td>50%</td>
<td>141</td>
<td>11.6x</td>
</tr>
<tr>
<td>December 10</td>
<td>Loyalty Partner</td>
<td>Germany</td>
<td>Loyalty programs</td>
<td>American Express</td>
<td>100%</td>
<td>498</td>
<td>12.4x</td>
</tr>
<tr>
<td>December 10</td>
<td>Travelex</td>
<td>UK</td>
<td>Pre-paid cards</td>
<td>MasterCard</td>
<td>100%</td>
<td>346</td>
<td>19.4x</td>
</tr>
<tr>
<td>October 10</td>
<td>Caixa</td>
<td>Spain</td>
<td>Merchant acquiring</td>
<td>Global Payments</td>
<td>51%</td>
<td>245</td>
<td>8.6x</td>
</tr>
<tr>
<td>August 10</td>
<td>DataCash</td>
<td>UK</td>
<td>E-payments</td>
<td>MasterCard</td>
<td>100%</td>
<td>377</td>
<td>17.6x</td>
</tr>
<tr>
<td>August 10</td>
<td>Worldpay</td>
<td>UK</td>
<td>Merchant acquiring</td>
<td>Advent, Bain Capital</td>
<td>80%</td>
<td>2,434</td>
<td>8.2x</td>
</tr>
<tr>
<td>April 10</td>
<td>Global Collect</td>
<td>Netherlands</td>
<td>E-payments</td>
<td>WCAS</td>
<td>100%</td>
<td>388</td>
<td>16.4x</td>
</tr>
<tr>
<td>June 09</td>
<td>HSBC</td>
<td>UK</td>
<td>Merchant acquiring</td>
<td>Global Payments</td>
<td>49%</td>
<td>660</td>
<td>14.0x</td>
</tr>
<tr>
<td>June 08</td>
<td>HSBC</td>
<td>UK</td>
<td>Merchant acquiring</td>
<td>Global Payments</td>
<td>51%</td>
<td>660</td>
<td>n.a.</td>
</tr>
<tr>
<td>March 08</td>
<td>CartaSi</td>
<td>Italy</td>
<td>Merchant acquiring &amp; co-issuing</td>
<td>ICBPI</td>
<td>76%</td>
<td>150</td>
<td>10.8x</td>
</tr>
</tbody>
</table>

Average 11.8x

Before going in depth with the analysis of this table and the deals reported in it, it is worth to clarify the methodologies used in deriving the valuations and the reported multiples. In fact, only the “transaction multiple” methodology has been used, that is the valuation method that takes as reference parameters the deal purchase price and so the related enterprise value for the acquired company and the target’s latest reported EBITDA. We believe this valuation technique is sufficient for the purposes of this work, and other methods such as the discounted cash flow
(“DCF”) or the trading multiples were unnecessary. Moreover, for most of these deals there was not enough available information in terms for example of earning forecasts to perform a DCF analysis. This is why we decided to focus on the “transaction multiples” methodology only.

Moving to a more practical analysis of the M&A transactions shown by table 1, at a first glance, we can already observe some interesting features, especially regarding three aspects: deal multiples, kind of targets and targets’ core businesses.

Regarding deal multiples20, we must first specify that the Visa / Visa Europe November 2015 transaction is not included in the computation of the average multiple, as it definitely is an outlier, for several reasons. First, this transaction represent a one-off deal portrayed by Visa to re-incorporate in the parent company its European branch that had spun-off in the past, hence it is not driven by sector dynamics common to all the other deals. Furthermore, it is too big in size and it was characterized by antitrust issues that in some way inflated the purchase price, resulting in an extremely high implied multiple that was not observed in any other recent deal in the European payments space. Apart from that, we can see how the payments sector is characterized by very high multiples, as an average of ~12 times the EBITDA cannot be observed in so many industries nowadays. This is one of the reasons why this business attracted so many investors in the past few years. With regard to this aspect, we must say that this high average deal multiple is in some sense justified by some peculiar features of the payments business and of companies competing in this environment. First of all, this industry is characterized, as we saw in chapter one, by a very high growth. This growth at sector level is obviously captured by payment companies also, and this is why they tend to get such high valuations on average, as the purchase price also includes this strong growth potential. Moreover, another feature that makes payment companies so highly valued in acquisitions is the fact that they tend to generate very high margins. The payment business is in fact characterized by a 25-30% average EBITDA margin, with some companies reaching also levels of 45-50% (e.g. Vantiv 48% EBITDA margin in 2015). This means that these companies are usually quite profitable, and not surprisingly investors are often willing to pay more to get them.

Then, in relation to targets, we can see names such as HSBC, Caixa, Santander, UniCredit,, Banco Popular, Pekao, Barclaycard (i.e. Barclays) that clearly show us an already mentioned trend that we will further develop later on in this chapter: banks outsourcing their payments activities to specialized players.

---

20 Enterprise Value / EBITDA multiple was used as it is the most relevant for the type of business considered
Finally, with respect to the targets’ businesses, we can see how most of the deals are within the merchant acquiring, e-payments and processing segments. Indeed, these are the parts of the payments value chain that experienced a more intense M&A activity, while other segments (e.g. issuing) were characterized by a significantly lower number of deals.

In this section, we will analyze in depth these three main features, along with others that are not directly reflected by table 1 above. To do so, we will first look at trends that characterize payments M&A deals in general, such as the impetus that drives companies to merge and the kind of buyers most interested in these assets. Then, we will consider in detail the most important deals in table 1, in terms of background, transactions highlights and strategic rationale, to get a practical reference of the key recent sector dynamics.

We will specifically analyze four groups of deals: (i) recent sale of payments processing assets by Italian two leading banks, UniCredit and Intesa Sanpaolo; (ii) European banks’ outsourcing initiatives of merchant acquiring activities; (iii) transactions that involve private equity investors and (iv) all deals involving the Dutch processing company Equens, especially its recent merger with Worldline’s processing activities, representing the biggest step towards consolidation in the European payments sector so far.

2.1.1 Type of buyers and drivers of payments M&A

In terms of M&A activity, the European payments sector has been characterized by some interesting features commonly shared by many different deals recently. The three main of these features can be summarized as follows: (i) strategic buyers broadening their product portfolios, (ii) merchant acquirers and processors pursuing economies of scale and geographical expansion through acquisitions (mostly of banks’ assets) and (iii) private equity investors aggressively targeting the industry. These aspects are well summarized by the below figure 23, that breaks down recent payments M&A deals in Europe by buyers’ type and strategic rationale.
As we can see, payments players are seeking both horizontal and vertical integration strategies as reflected by the first two features above (i.e. product portfolio broadening and geographical / size expansion). In addition, payments assets tend to trigger the appetite of not only strategic buyers but also financial ones (i.e. private equity investors).

Regarding buyers, the majority of deals was indeed portrayed by strategic buyers. However, although financial buyers accounted for only ~20% of the transaction count, they were responsible for the single largest transaction in each of the three considered years\(^\text{21}\): the €765m acquisition of SIA in 2013, the €1,945 acquisition of Nets in 2014 and the €2,150m acquisition of ICBPI in 2015. Moreover, thus far, private equity buyers have generally proven to be quite successful in creating shareholder value (as noted in the already mentioned tremendous outcome on Advent International/Bain Capital’s investment in WorldPay).

With respect to the drivers of recent acquisitions, instead, we can see from the figure that, from the buyers’ perspective, the main motivation for M&As in the considered years was the expansion of product capabilities. This is due to the fact that many new products were recently developed (e.g. mPOS, digital wallets, instant payments) on the back of the rise of FinTech. However, along with vertical integration reasons, two are the main levers of payments M&A that are driving consolidation in the European payments sector: scale and technology. As per the first, we already mentioned how the payments business is a scale business, therefore more and more PSPs seek to grow in size through acquisitions in order to boost efficiency. Regarding

\(^{21}\) Excluding the non-comparable outlier Visa / Visa Europe transaction
technology, it is a key competitive strength in the payments sector along with scale, as highlighted from the fact that it is the main component of research and development spend in this business. Therefore, many payments companies are trying to increase their technological capabilities by acquiring technological start-ups and hi-tech specialist companies. These are the most important drivers from the buyers’ side. However, even though they are not reflected by the figures, some key features that triggered M&As in the payments space are from the sellers’ perspective as well. When we refer to sellers in this case, we talk about banks, as they are the players who historically centralized most of the payments-related activates and then started more and more to outsource them to specialized players. In a context where the ability to scale-up technologies and offer integrated platforms is a key differentiating factor, banks increasingly rely on third party outsourcers to keep up with innovation and seize benefits of operational leverage. Furthermore, in the aftermath of the financial crisis, European banks remain under pressure to deliver on cost rationalization and more and more are therefore divesting their back-end payments activities or partnering with specialized PSPs, while focusing on their core business and on cost efficiency initiatives.

Before moving on to describe the deals reported in table 1 from a more practical viewpoint, it is worth to point out another feature of M&A deals in the payments space, that is the issue of synergies. As it is the case of any merger or acquisition in any business segment, the main hope of acquirers is to achieve synergies post integration of the target company. There are usually two kind of synergies: cost and revenue synergies. The former are about cost rationalization post target integration, as the resulting, larger companies can better exploit economies of scale and can optimize some processes. Revenue synergies, instead, are about boosts in business performance driven by the merger, given for example by the expertise brought by the target in some aspects of the business, brand recognition or expanded customers pool. Usually, cost synergies are easier to achieve, and even better identifiable before full target integration, and this is why sometimes there are included in the purchase price paid by the acquirer. Revenue synergies are instead more opaque and they usually can be identified only some time after the merger’s completion. With regard to the payments sector, the main synergies that these companies tend to exploit are cost synergies, related to the fact that scale is a crucial differentiating factor in this industry and larger companies are more efficient than small ones. In some cases these synergies take the form of personnel rationalization, since, as a company’s size grows, the processes become more and more standardized and less human force is needed. However, the most important kind of cost synergies achieved through M&As by payment companies is related to a rationalization of IT costs. Indeed, this kind of costs are usually the
main component of business costs for firms in this industry, and are a dangerous issue for small companies especially. In fact, large players are better placed to invest in more efficient IT platforms, smoothing the impact of this on their costs base. In many cases, large companies acquire smaller players to benefit of their infrastructure platform only and their technological expertise to reduce recurring, IT costs. Therefore, when we hear of synergies exploitation as driver of payments’ companies M&As, this is the kind of synergies the parties usually refer to. It is very unlikely that a deal is driven by expected synergies on the revenue side, since they are very hard to predict a priori.

As we said, the features described above are common to payments transactions in general, and characterized recent M&A activity in the European payments space. We can now focus on some specific deals mentioned above and see how these features reflect in practice.

2.1.2 Italian banks’ outsourcing of processing activities

Italy’s two major banks, UniCredit and Intesa Sanpaolo have historically been covering the entire payments value chain mostly in house. However, in 2016 both of them shifted from an holistic approach to the outsourcing of the processing activities to specialized players. Until 2015, Intesa Sanpaolo conducted merchant acquiring, issuing and acquiring processing activities in Italy through its fully owned subsidiary Setefi, and processing activities in Croatia, Slovenia and other CEE countries through Intesa Sanpapol Card. Then, in December, the bank completed the partial demerger of Setefi merchant acquiring business unit. This was the forewarn of what the bank would have done some months later. In fact, on May 2016, Intesa Sanpaolo announced the disposal of Setefi and Intesa Sanpaolo Card to the private equity funds Advent International, Bain Capital and Clessidra. The transaction valued these two subsidiaries’ 100% equity value at €1bn, representing an implied EV / EBITDA multiple of ~11x. Under the terms of the deal, Intesa Sanpaolo also signed a 10-year service contract to use the processing services provided by Setefi and Intesa Sanpaolo Card. This transaction, even though very recent, is a key milestone in the development of the Italian payments sector and reflects many of the features we described in the previous section. First, it is consistent with Intesa Sanpaolo’s objective of monetizing non-core assets, typical need of many European banks. Peculiar was then Intesa’s choice of retaining merchant acquiring activities in house, instead of fully outsource those as well as many other European banks did. The rationale behind this choice was to leverage on clients relationship within merchant acquiring, as these would have been lost in case of a sale. A pure back-office business with no direct relationship
with clients as the processing one, instead, was considered non-core and thus sold to reduce capital burden and increase efficiency.

Furthermore, the private equity funds that acquired Setefi and Intesa Sanpaolo Card are the same players that had acquired in December 2015 ICBPI, Italy’s leading integrated provider of card payments services, and are expected to integrate the two companies to create an undisputed champion in the Italian payments landscape. This does not only give us a first evidence of private equity players’ appetite for payments assets, but also represents a crucial step towards consolidation, even though only within the Italian market and not at European level.

Some months after this deal was announced, UniCredit mirrored the very same sale strategy portrayed by Intesa Sanpaolo. UniCredit processing activities in Italy, Germany and Austria were conducted, along with other businesses, by its subsidiary UniCredit Business Integrated Solutions (“UBIS”). In August 2016, UBIS spun-off these activities and sold them for €500m to SIA, the already mentioned Italian market leader in both issuing and acquiring processing. The transaction valued UniCredit processing business at ~12 times the EBITDA. At the same time, the bank has agreed to enter into a 10-year outsourcing contract with SIA for the provision of card processing services.

Regarding the strategic rationale, we can once again find similarities with the Setefi / Intesa Sanpaolo Card deal. According to UniCredit’s deal announcement press release, “the sale of the card processing activities further underpins UniCredit’s commitment to seize value creative opportunity in line with a renewed focus on strictly disciplined capital management and pro-active capital optimization actions (...) allowing UniCredit to retain access to the same high quality standard of service whilst exiting a non-core activity”. From the buyer perspective, instead, the transaction reflects the key drivers we identified in the previous section: according to Massimo Arrighetti, CEO of SIA\textsuperscript{22}, “this acquisition allows SIA to strengthen further its competitive positioning at domestic and international level, especially in Germany and Austria – two of the main target markets in the 2016-2018 Business Plan - to increase the volumes of the payments managed on our technology platforms and thus achieve greater economies of scale”.

Even though mainly related to Italy’s national boundaries, these two transactions are very interesting at European level also. First of all, they are peculiar in Intesa Sanpaolo and UniCredit choice of retaining merchant acquiring business in house, while only outsourcing card processing. This is in some sense a shift away from the dominant tendency at European level of merchant acquiring outsourcing that we will analyze later on, but it shows in a very clear way the

\textsuperscript{22} As of SIA press release “SIA acquires Unicredit's e-money processing activities for Italy, Germany and Austria”, dated 3 August 2016
banks’ increasing intention of focus on their core business and capitalize on non-core assets, that was the most important trigger of all recent M&A deals in the European payments sector that involved banks.

Furthermore, even though at national level only, they give us a first, clear evidence of the consolidation process that the payments market is going through in Europe. Indeed, they both show market leading players (directly or through their shareholders as per the Setefi / ICBPI case) acquiring smaller players to exploit benefit from increased scale and seek greater efficiency.

Related to this consolidation trend observed within the Italian payments market is also another deal indicated in the table above, that involves once again ICBPI, the main consolidator of the industry in Italy in the latest years: the acquisition, announced in December 2016 of the POS and ATM management company Bassilichi for €230 million. If we look at the transaction perimeter, it is strikingly clear how ICBPI, a diversified PSP that operates also in the fields of securities services and business process outsourcing, is interested in acquiring payments assets only: out of the four companies fully controlled by the holding company Bassilichi, ICBPI acquired only Consorzio Triveneto, the leading national provider of POS management, e-commerce and corporate banking services for businesses and Moneynet, which offers POS and e-commerce solutions to SMEs. Fruendo, which offers back office services for the banking sector, was not part of the transaction, nor was Abs Technology (information security). This deal actually is not fully in line with the two transactions analyzed earlier, as Bassilichi’s core business is not payment processing. However, we believed it fitted well in this section, for more than one reason. First, two major Italian banks were among the selling shareholders of Bassilichi, i.e. Monte Dei Paschi di Siena that controlled a 12% stake and Banca Popolare dell’Emilia Romagna (“BPER”), with a 10% stake. Therefore, it gives us another reference of how banks are more and more willing to monetize on non-core payments assets. Then, this deal clearly represents a further, important step towards consolidation in the Italian payments market that we described, as a market leading company acquired a smaller player in the industry. Indeed, post Bassilichi integration, ICBPI will add to its already ~600k POS managed in Italy, over 300k of those managed by Bassilichi.

---

2.1.3 *European banks merchant acquiring outsourcing*

As we already said several times, European banks are recently subject to external pressure for streamlining activities and re-focusing into their core business. As a consequence, over the last few years many European banks have either fully outsourced merchant acquiring activities (in some cases including acquiring processing also) to specialized players or entered into strategic partnerships with them.

Two deals shown by the table above, both involving as acquirer the US merchant acquiring company Global Payments, provide us with a great example of both merchant acquiring and processing outsourcing: the June 2009 transaction with HSBC and the October 2010 with Caixa. The latter deal was a creation of a joint venture, controlled 51% by Global Payments and 49% by Caixa, to provide merchant acquiring and payment processing services to merchants in Spain. To get an understanding of the rationale behind it, we can once again refer to the statement of Caixa CEO at the time of the deal announcement\(^{24}\). He said: “By setting up a strategic alliance, "la Caixa" will be joining forces with a world leader in Global Payments, to drive forward market share growth and reinforce the quality of service that it provides to merchants. Furthermore, the deal represents an important step for "la Caixa" in the international growth of its payments systems business. Global Payments is the best partner that "la Caixa" could possibly find for this project, with its 40 years of recognized experience in the merchant services business and a powerful international presence. "la Caixa" and Global Payments share the same attitude towards the importance of new technologies and are committed to capitalizing on the new business opportunities that these generate”. From the buyer’s perspective, Global Payments CEO at the time added\(^{22}\): “Based on our singular focus on merchant acquiring, we expect to grow the customer base by providing increased sales resources and focus on the merchant acquiring business”.

Very similar features can be observed by looking at the HSBC / Global Payments partnership. With regard to this deal, built on HSBC’s long-time relationship with Global Payments in the USA and in Asia, we can see from table one that it was developed in a two-stage transaction: in 2008, the two companies established HSBC Merchant Services, a merchant acquiring joint venture, 51% controlled by Global Payments and 49% by HSBC, that also provided payment processing services to HSBC’s merchant customers in the UK and internet merchants globally. Then, in 2009 Global Payments acquired HSBC’s remaining 49% stake in HSBC Merchant Services. Commenting on the June 2009 deal, Noel Quinn, HSBC’s UK Head of Commercial

---

\(^{24}\) As of Global Payments 18 Nov-10 press release “GP and La Caixa, largest retail bank in Spain, from strategic JV”

https://investors.globalpaymentsinc.com/releasedetail.cfm?releaseid=747768
Banking at the time, said\textsuperscript{25}: \textit{“We are focused on ensuring that our commercial banking relationships benefit from a combination of HSBC’s core service capabilities, including our international distribution, and from high quality support services. Global Payments is a market leader in the provision of card processing services, whom we know well from working together in Asia and North America. Our UK customers will continue to benefit from their expertise.”}\n
Apart from these two transactions, that show us in practice a feature we mentioned in Chapter One, that is how sometimes merchant acquiring and processing can be provided by the same entity, many more transactions of this kind were recently observed in Europe involving outsourcing of merchant acquiring activities only. As shown in table 1, Santander 2012 partnership with the US acquiring specialist Elavon, Banco Popular two-stage exit to the US EVO Payments, 2008 sale of CartaSi by a consortium of Italian banks to ICBPI and 2013 66\% sale of Pekao’s merchant acquiring subsidiary to EVO Payments in Poland represent very good examples of this kind. The already mentioned spin-off of Worldpay by RBS with subsequent IPO also is a reference of merchant acquiring outsourcing by a bank, but we will discuss it later on in the following sections in more detail as it involves financial sponsors.\n
The rationale behind these transaction for the banks involved is again similar to the two deals described above, that is leveraging on scale potential and technological capabilities of specialized PSPs, as merchant acquiring does not necessarily represent a core, strategic business for banks. Indeed, commenting on the 2012 deal, Enrique García Candelas, Senior Executive Vice President and head of Commercial Banking of Santander at the time said\textsuperscript{26}: \textit{“This partnership will enhance services and incorporate new technologies for our current and future clients, who will be provided with the most complete portfolio of products and services on the market”}. Similarly, Banco Popular’s General Manager, José Ramón Alonso, regarding the 2013 deal with EVO Payments stated the following\textsuperscript{27}: \textit{“This arrangement is in line with our strategic objective of establishing long-term alliances with premier global companies, and we look forward to leveraging EVO’s expertise and economies of scale. The goal of both organizations is to provide leading edge products and services via the Bank’s extensive branch network in Spain”}.\n
Finally, we should mention that table 1 does not include all recent references of merchant acquiring outsourcing strategies portrayed by European banks, as it was filtered for deals that

\textsuperscript{25} As per Global Payments 12 Jun-09 press release “GP acquires remaining 49\% interest in UK merchant services JV”, https://investors.globalpaymentsinc.com/releasedetail.cfm?releaseid=747784\n
\textsuperscript{26} As per Santander 19 Oct-12 press release “Banco Santander signs an agreement with Elavon to boost the card payment services business with retailers”, http://www.santander.com/csgs/Satellite/CFWCSancomQP01/en_GB/Corporate/Press-Room/Banco-Santander-signs-an-agreement-with-Elavon-to-boost-the-card-payment-services-business-with-retailers--.html\n
included enough disclosure in terms of purchase price, implied multiple and stake acquired. If we do not limit our attention to these fully disclosed deals, we can find even more references of this kind. For instance, in Germany, Commerzbank in 2010 sold its merchant acquiring and processing subsidiary Montrada to Equens, and Deutsche Bank, in 2012, sold its merchant acquiring business operating in 39 countries to EVO Payments and in 2015 also outsourced to EVO the merchant acquiring business of its subsidiary Deutsche Postbank. Then, the Sweden bank Nordea in 2015 sold its entire merchant acquiring and processing business in Norway and Sweden to Nets. BNP Paribas also conducted this kind of strategies in two European countries: in Belgium, its subsidiary BNP Paribas Fortis entered in 2014 into a long-term strategic partnership with the Swiss PSP SIX for merchant acquiring services; in Italy, the subsidiary BNL established in 2005 BNL POSitivity, a joint venture with the US First Data for technical and commercial management of POS payment transactions. Moreover, in 2015 EVO Payments entered into a long term strategic alliance for merchant acquiring and processing with Raiffeisen Bank in Poland and Czech Republic. In 2013, SIX acquired from a group of Austrian banks PayLife, the country’s market leader in merchant acquiring (SIX was already PayLife’s processing partner before the acquisition). Furthermore, in 2006 Worldline acquired the Belgian acquiring and processing company Banksys from a consortium of Belgian banks including Dexia, KBC and ING, also entering into long-term commercial contracts with the selling banks. The same buyer in 2016 acquired a majority stake in the merchant acquiring business of Komercni, the subsidiary of the French Bank Société Generale in Czech Republic. Finally, the UK bank Lloyds also established a joint venture with First Data in UK, the already mentioned Cardnet.

In addition to this important track record of deals, some more transactions of this kind are in the pipeline for the next years. For examples, the Italian bank Monte dei Paschi di Siena (“MPS”), recently announced in the 2016-2019 business plan presented on the 25th October 201628 that it is considering the sale of its merchant acquiring activities to strengthen the CET1 and already received an offer from ICBPI for a total consideration of €520 million and a proposal for a commercial partnership in this business. According to MPS press release “The offer is subject to the negotiation and execution of the relevant contractual documentation and to the authorization from relevant authorities. The Board of Directors has taken note of the proposal and has

resolved to perform the necessary analyses and, to this extent, has agreed to grant ICBPI with an exclusivity period until December 31 2016 in order to perform the described activities”.

Furthermore, Concardis, the German market leader in merchant acquiring has recently been put up for sale by its banks shareholders (i.e. Commerzbank, Deutsche Bank and UniCredit AG) and the sale process is currently undergoing, with some private equity investors considered to be in the first line to win the bid, as we will see later on.

As we can see, all these deals give great support to the evidence of banks and PSPs seeking efficiency in the payments sector through M&As and identify scale and technology as the two main drivers, as mentioned above. Moreover, they clearly show the trend recently embraced by European banks of outsourcing non-core payments operations to specialized players.

2.1.4 Private equity investments in the European payments space

As we mentioned at the beginning of this chapter, approximately 20% of the recent transactions in the European payments space involved financial sponsors. Table 1 shows us some of the most relevant transactions of this kind, including for instance the acquisition of a 59% stake in the Italian market leading processor SIA by the funds CDP Equity, Fondo Italiano per le Infrastrutture (“F2i”) and Orizzonte. This transaction was peculiar also in the sense that vendors were four Italian banks, namely Intesa Sanpaolo, UniCredit, MPS and BNL, confirming once again the tendency of outsourcing payments activities embraced by banks and discussed in the last two sections. However, even though it can be considered a financial sponsor transaction, SIA deal is peculiar in the sense that the buyers are Government-backed entities and not pure private equity investors (e.g. CDP Equity is backed by the Italian Cassa Depositi e Prestiti). The acquisition of UK e-payments operator by CVC in 2013 and the one of Global Collect by Welsh, Carson, Anderson & Stowe (“WCAS”) in 2010 also represent some important references of private equity investments in the European payments space.

However, as it emerges also from table 1, if we speak of private equity investors in the payments sector, the scene is dominated by Advent International and Bain Capital, two of the world’s largest and most experienced global private equity firms and leading investors in the payments and financial services ecosystem. Indeed, along with their investments in Europe, Advent backed the carve-out of Vantiv, third largest merchant acquirer in 2015 in the USA, from Fifth Third Bank and then listed the company in 2012, while Bain Capital was a major investor in Fleetcor, a global leader in fuel cards and other specialty payments services, that went public in 2010. In

---

29 MPS announced the sale of its merchant acquiring business to ICBPI on 3 February 2017
30 Formerly Fondo Strategico Italiano (“FSI”)
31 By card transaction volume, according to the Nilson Report as of March 2016
the European payments space, these two funds (in some cases along with a third, smaller partner) invested together in three out of the top-10 merchant acquiring companies in Europe in 2015: the UK company Worldpay (ranked 1st), the industry leader of the Nordic region payments sector Nets (ranked 4th) and the Italian market leader in merchant acquiring ICBPI (ranked 9th). The investment in Worldpay was the first one chronologically, as the spin-off of the company from RBS originally happened in 2010. We already mentioned the highlights of this transaction, whose other key milestones were the buyout of the 20% stake in Worldpay that Advent and Bain did not originally buy in 2013 and then the listing of the company in 2015. The €2bn buyout of Nets from a group of 186 Nordic banks (including, as the largest shareholders, Nordea, DNB and Danske Bank), came some years later in 2014. The funds behavior was exactly the same as per the Worldpay case: in September 2016, they listed Nets on the Copenhagen stock exchange, obtaining an IPO valuation of the company at ~€5bn. Finally, Advent and Bain announced the acquisition of ICBPI in 2015, from a group of Italian “Popolari” banks. In the Italian market, ICBPI is not only an undisputed leader of the domestic payments space through its subsidiary CartaSi, that operates as independent merchant acquirer and co-issues credit and debit cards with some Italian banks, but also operates securities services and business process outsourcing. However, since the acquisition, the private equity shareholders almost immediately demonstrated their intention to focus on the payments business in particular, by acquiring some months later, as described in the previous sections, Setefi and Intesa Sanpaolo Card, the card processing arms of Intesa Sanpaolo. Moreover, ICBPI announced in December 2016 the acquisition of the Italian POS management company Bassilichi and was also granted exclusivity period and is about to announce the acquisition of MPS merchant acquiring business, as highlighted in the last sections. Furthermore, even though the funds are at an earlier stage of their investments in ICBPI rather than those in Worldpay and Nets, it appears clear from these two direct references their intention to list ICBPI as well in the next few years.

These three transactions are very interesting in a number of respects: first, all the three PSPs named above were originally bank-owned, so they give us a further evidence of the choice of most European banks to outsource their payments activities; second, all three deals created large, independent regional payment champions, a proof of how the sector is clearly moving towards consolidation; third, they demonstrate how private equity funds tend to eventually list the company they invested in. This is expected to benefit the whole industry by creating a more

---

32 By card transaction volume, according to the Nilson Report as of May 2016. ICBPI included in the rank through its subsidiary CartaSi
mature and developed equity market for the European payments sector, as it is currently under
developed with only a few large active listed players.
Moreover, in addition to these three crucial deals that are actual milestones in the European
payments sector development, another private equity backed deal is worth mentioning: the joint
venture established, in 2014, by the Spanish bank Banco Popular and the US private equity
compny Värde Partners, named Banco Popular-e. This joint venture was responsible for the
credit card business of Banco Popular as a whole, and especially managed the bank’s card
issuing business, as Banco Popular had already outsourced, as we said, most of its merchant
acquiring operations to EVO Payments. Therefore, it is a very interesting transaction as we do
not have many references in the European payments sector of deals within the card issuing
segment of the value chain, as most banks prefer retaining this activity in-house as they consider
it as a core business. Moreover, as it was the case for the ICBPI deal, also in this case the private
equity shareholder demonstrated right away its commitment to expand the recently acquired
payments business through M&A: in fact, in April 2016, Banco Popular-e announced the
acquisition of the card payments business of Barclaycard in Spain and Portugal from Barclays
for €1bn.
This transaction is also interesting both from the buyer and seller perspectives: for Banco
Popular-e, it is a way to increase scale and therefore efficiency, while for Barclays it is a great
way to monetize on non-core assets in countries where the bank is not a leading entity. Once
again, both these features are in line with the general trends we depicted for the payments sector
as a whole at the beginning of this chapter.
As we said, up to this point, the financial sponsors players performing acquisitions in the
European payments space are always the same 4-5 investors, that are massively focusing on this
industry and gained strong expertise in managing these kind of firms. However, so far we have
not seen a proper roll-up strategy performed by these players in the European payments space.
This occurs when investors buy up companies in the same market and then merge them together.
Private equity firms use roll-ups to rationalize competition in crowded markets and to combine
companies with complementary capabilities into a full-service business. As we can see by the
deals described above, none of it represents a transaction of this kind. Indeed, private equity
firms such as the mentioned Advent International and Bain proved to be very active in terms of
M&A activity after their entries into payment companies’ capitals, but the deals they performed
were mostly acquisitions of small, local players rather than a merger of two or more, large
companies in their portfolio. Most of the M&A deals these shareholders put in place in
companies such as Nets or Worldpay were add-ons of small companies for consolidation
purposes rather than industry changing roll-up mergers. For instance, Nets completed seven acquisitions in the Nordic region since the sponsors’ entry until the IPO, for a total value of approximately €400m (DKK 3.1bn\textsuperscript{33}). With an average value of ~€60m per deal, these transactions are clearly add-ons of smaller companies only. Anyway, the fact that private equity investors may be willing to perform roll-up strategies in the future may not be completely excluded. Actually, this seems very likely to happen in Italy, where as we said Advent International and Bain acquired both ICBPI and the payment processor Setefi. Up to this point, these two companies are still two independent entities and are managed separately by the private equity shareholders. However, it is strikingly clear that the ultimate intention is for them to merge the companies, also as they seem to integrate perfectly along the payments value chain since ICBPI is the Italian market leader in POS management, merchant acquiring and co-issuing on behalf of many Italian banks, while Setefi is a pure processing company. It therefore seems very likely that we will see the first roll-up merger within the European payments space in the imminent future, also to give ICBPI greater scale and power before the IPO.

Moreover, according to the latest press rumors\textsuperscript{34}, the same private equity players, Advent International and Bain Capital, are also seen as the most probable buyers of the German market-leading merchant acquiring company Concardis, put up for sale by some of its banks shareholders, that we mentioned in the previous section. If this transaction will go through, not only Advent International and Bain will enter another, key European market (i.e. Germany), but will also possibly think to combine Concardis and ICBPI to create an undisputed, pan-European payments champion that could potentially challenge US giants in this business globally. It is obviously too early to make this kind of predictions, as the deal has not even been announced yet, but given these investors’ appetite for the industry and their very strong attitude towards consolidation, it does not seem a too unreal expectation.

In conclusion, we can say that financial sponsors have so far proved to be able to extract great value from payments companies, as the huge IPOs of Worlpday and Nets demonstrated. It is not easy to derive precisely how much value are we speaking of exactly in terms of return on the investment, as the exit strategy of these player does not take place through a single sale but it is usually split over a 1-2 years time-frame. Indeed, even though they successfully launched the IPOs of Worlpday and Nets, Advent International and Bain still hold stakes in these two companies that they will likely sell shortly on the secondary market, therefore a precise estimate of their return cannot be performed. However, we can do an analysis of such for another

\textsuperscript{33}As of Nets IPO Prospectus, page 106

\textsuperscript{34}Reuters article dated 6th January 2017, http://www.reuters.com/article/us-concardis-m-a-idUSKBN14Q101
investment by Advent International in the payments space, the one in the already mentioned US company Vantiv, whose full exit was completed in March 2014. Advent purchased 51% of Vantiv (named FTPS at the time), from Fifth Third Bancorp, who retained a 49% stake, in June 2009. The two shareholders hence established a joint venture worth $2.35 billion. In March 2012, the company completed an IPO, listing on the New York Stock Exchange at $17 per share. In March 2012, the company completed an IPO, listing on the New York Stock Exchange at $17 per share. Advent International realized its position in the company over two years through several secondary offerings and block trades. At the time of the final exit, in March 2014, the stock was trading above $31, 85% higher than the IPO price, resulting in a market capitalization for the company of ~$7bn (almost 3 times the value of the joint venture established in 2009). Vantiv posted a 109% growth in EBITDA during Advent’s ownership⁴⁵. Again, it is not easy to derive a precise return on investment rate for Advent International, but these numbers let us understand that consistent value was created for Vantiv under Advent’s ownership. We’re probably referring to a 60-80% IRR, that is more or less what private equity investors tend to extract from payment companies.

Moreover, private equity backed companies tend to act as consolidators in the payments sector, as Nets did in the Nordic region with the seven acquisitions we mentioned above, from the sponsors’ entry until the IPO, and ICBPI is doing in the Italian market, as explained in the sections above. Therefore, such investments are very well welcomed by European payments market participants and are expected to contribute to improve efficiency in the market.

2.1.5 Worldline / Equens transaction

Equens is a leading company in the European card payments and ACH processing environment, with direct presence in Netherlands, Germany, UK, Italy and Finland. The company has always been quite active in terms of M&A, as for instance it entered the Italian market in this way in 2008, by establishing “Equens Italia”, a 50:50 joint venture with ICBPI, whose 50% stake was then bought out by Equens in 2011 before fully incorporating Equens Italia into the parent company in 2013. The company was also active, with minor exposure compared to card processing, in the merchant acquiring business through its fully owned subsidiary PaySquare, with operations in Netherlands, Belgium, Luxembourg, Germany and Poland.

On November 3rd 2015, Worldline, French PSP mostly focused on card processing and merchant acquiring but fully integrated along the payments value chain with a ~€3bn market cap at the

⁴⁵ As of Advent International case study, https://www.adventinternational.com/investments/case-studies/case-study/?case_study_id=vantiv
time, announced the project of a major transaction with Equens, structured in two components\(^\text{36}\): (i) the creation of a new “Wordline Equens company”, combining Worldline processing business and Equens, owned 64% by Worldline and 36% by Equens’ shareholders (DZ Bank, ABN Amro, ING, Rabobank, ICBPI); (ii) the acquisition of 100% of PaySquare in cash for €72 million (12.5x implied EV / EBITDA multiple) and the integration of the company within Worldline’s merchant acquiring business.

This transaction, completed on 30\(^{th}\) September 2016, represents the biggest step towards consolidation so far in the European payments landscape. Indeed, consolidating the European payments industry was one of the key drivers for this deal from Wordline’s side, as stated by Gilles Grapinet, Worldline CEO, while commenting on the completion\(^\text{37}\): “The successful completion of the merger of Equens and Paysquare within the Worldline group is a major development for our company to better serve both the banking and merchant communities and is fully in line with our strategy of being an active industrial consolidator within the European payment market. Through the transaction, the enlarged Worldline Group benefits from a highly comprehensive Pan-European footprint and has increased its revenue size by c.+65% in Financial Processing and by c.+25% in Commercial Acquiring. The Group will immediately engage the execution of the integration programs and of the previously communicated synergy plans.” Furthermore, other benefits are expected from Worldline, as communicated to investors on the announcement date: cost synergies deriving from “considerable processing scale with significant number of transactions” and revenues synergies arising from “extended geographies and portfolio of merchants in commercial acquiring” with “expected additional growth coming from innovative services” (e.g. instant payments and m-payments solutions).

With approximately 100 million of cards under management, 10 billion SEPA payment transactions processed annually, 6 billion ATM and POS transactions processed and 250,000 merchants served after full Equens and PaySquare integration, Worldline will become and industrial leader in payments services in 5 major European countries and will create a unique pan-European platform with a diversified revenue base, ranging from processing to merchant acquiring, ACH services and e-payments.

This is way this transaction more than any other clearly shows how a consolidation process is undergoing within the European payments sector, and is expected to trigger more transactions of

\(^{36}\) As of Worldline investor presentation dated 3 Nov-15 “Worldline intends to join forces with Equens to strengthen its pan-European leadership in payment services

this kind in the next few years. Moreover, it gives us another reference of how scale is a crucial driver in payments M&A.
2.2 Observed sector trends and expected developments

Last paragraph gave us good practical references of what is going on within the European payments market, at least in terms of M&A activity. In this paragraph, we will try to summarize the features that the deals analyzed above show and try to infer from those what are the expected next steps of development for the payments sector in Europe.

In doing so, we will first take once again the US payments market as a reference. Indeed, as we already saw in Chapter One, this market is at a more advanced stage of development compared to the European one, and therefore it gives us a good indication of what is likely to happen in Europe within the next few years.

2.2.1 European and US payments markets comparison

As we said above, and as shown by table 1, the European payments market has been very active recently in terms of M&A activity. However, as we already demonstrated, Europe lags significantly behind the USA in terms of payments market maturity, and this reflects also in the M&A market if we compare the two geographical areas. In order to get a first idea of this feature, we can look at figure 24, that shows the level of a very important indicator, directly linked to a company’s M&A activity, for the main listed US and European payments players, that is the net debt / EBITDA ratio.

![Figure 24: Net debt / EBITDA of key payments players](image)

Source: Companies financial reports as of June 2016
Even though this ratio is mostly used to analyze a company’s financial stability and its credit rating, it is indeed a function of the company’s M&A activity also. Indeed, as most of the acquisitions recently are paid in cash, an higher number of acquisitions reduces the cash stock of a company and thus increases its net debt. High levels of the net debt / EBITDA ratio usually mean that a company recently undertook sizeable M&As.

As the figure shows, US peers show significantly higher levels of net debt / EBITDA ratio compared to the European ones. This is a result of the fact that the many times mentioned consolidation process within the payments sector started in the USA some time earlier and this process is at a more advanced stage of development than Europe, where it just took off.

In order to show in a more precise way the level of consolidation within the US payments market, we can start by looking at figure 25 below, that ranks the top-15 US merchant acquirers in 2015 in terms of transaction volumes.

**Figure 25: top-15 merchant acquirers in the USA**

<table>
<thead>
<tr>
<th>Merchant acquiring volume (Sbn) in 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chase</td>
</tr>
<tr>
<td>First Data</td>
</tr>
<tr>
<td>Vantiv</td>
</tr>
<tr>
<td>Bank of America</td>
</tr>
<tr>
<td>Elavon</td>
</tr>
<tr>
<td>Wells Fargo</td>
</tr>
<tr>
<td>Global Payments</td>
</tr>
<tr>
<td>Heartland</td>
</tr>
<tr>
<td>Worldpay</td>
</tr>
<tr>
<td>TransFirst</td>
</tr>
<tr>
<td>PNC</td>
</tr>
<tr>
<td>TSYS</td>
</tr>
<tr>
<td>N.A. Bancard</td>
</tr>
<tr>
<td>Intuit</td>
</tr>
<tr>
<td>EVO Payments</td>
</tr>
</tbody>
</table>

*Source: The Nilson Report, March 2016*

This figure does not give us any reference of the consolidation of the US payments market per se. However, we should combine them with two very important M&A transactions that were announced in the time frame December 2015 – January 2016: the acquisition of Heartland by
Global Payments for $4.3bn and the acquisition of TransFirst by TSYS for $2.4bn (both transactions completed in April 2016). As we can see from figure 25, the first deal represents a merger between the 7th and 8th largest merchant acquirers in the USA, and the second between the 10th and 12th largest ones. These transactions consist in mergers of companies within the top-15 largest in the sector in a country as big as the USA, therefore they clearly indicate how a massive consolidation process is taking place. With regard to the TSYS / TransFirst transaction, the fact that the first company acquires the second one even though it managed a lower transaction volume in 2015 should not surprise. In fact, TSYS’ core business is issuing processing, in which segment the company is the undisputed market leader in the US environment, while TransFirst is a pure merchant acquirer, and overall way smaller in size compared to TSYS. Therefore, the transaction is also interesting as it shows another interesting feature, that is the choice of many PSPs of becoming more and more integrated along the whole payments value chain.

These two transactions represent the greatest evidence thus far of the consolidation process that in undergoing in the US payments sector, and of how it is at a way more advanced level compared to Europe, where is definitely too early to see a merger between two key, pan-European payments players. Indeed, the Worldline / Equens deal is a first, important move in this direction, but it cannot be compared with the two transactions described above, size wise.

However, this is not the only evidence of how the US payments market became more and more consolidated over the past years. Figure 26, that compares the combined market share of US top-10 acquirers in 1988 and in 2015, also supports this point.

*Figure 26: US top-10 merchant acquirers market share*

<table>
<thead>
<tr>
<th>1988</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>61%</td>
<td>80%</td>
</tr>
<tr>
<td>39%</td>
<td>20%</td>
</tr>
</tbody>
</table>

Source: The Nilson Report as of 2015
As we can see, the US market became more and more concentrated, and top-10 acquires combined market share grew significantly in the last 25 years. This is exactly what consolidation is about.

If we compare these results with those for Europe, we can also get another evidence of the lag between the two areas in terms of consolidation. Unfortunately, we do not have data for the whole European merchant acquiring transaction volume pool, but only for the 40 largest European merchant acquirers in 2015\(^{38}\). However, the combined volume of European top-10 merchant acquirers was 63\% of the combined volume for the top-40 largest ones. This value, compared with the 80\% market share of US merchant acquirers in terms of transaction volume, based on the whole sector, clearly shows the gap between Europe and USA.

Another way to see this feature is to look at figure 27 below, that shows the combined volume, in Euro billion, of the top-10 merchant acquirers in Europe and in the USA in 2015.

![Figure 27: Top-10 merchant acquirers volumes (Ebn)](image)

As we can see, the US market is far more concentrated than the European one, with 2.6 times higher volume generated by top-10 acquirers. Of course, this figure shows absolute values and does not take into account size differences between the two geographical areas, therefore it is less relevant than the above evidence based on market shares that overcomes this problem. However, it can be interesting nevertheless as the difference between Europe and USA is too high to be related only to size.

\(^{38}\) According to the Nilson Report as of May 2016
In addition to what described so far, another interesting feature to mention is that, if we look at the rank of the largest merchant acquirers in the USA (i.e. figure 25 above), we can see that the only European-based player within the chart is Worldpay. If we consider, instead, the ranking of largest merchant acquirers in Europe (as shown by figure 5 earlier in this paper), we can find within the top-10 both Global Payments and Elavon, along with Cardnet that as we said is partially owned by the US company First Data. This also shows us how US payments players are not only generally larger than the European ones and more developed in their home country, but they are also way more integrated cross-border and many of them can enjoy a global reach. This is not the case for European peers, as the mentioned Worldpay and the POS terminal manufacturer Ingenico are the only two players that enjoy a strong global footprint.

As we already saw in Chapter One by looking at payments key performance indicators, this paragraph gave us further evidence of how the US payments market is better developed and more mature than the European one, also providing some important practical references. On the back of this, we can try to analyze the route the European payments sector is expected to undertake in the next years, which will be the purpose of next section.

2.2.2 Recent trends and expected next steps for the European payments market

Based on what we saw up to this point, and especially given all the practical references of recent M&A deals, their drivers and the rationale behind them that we analyzed earlier in this chapter, we can try to summarize the most important trends observed in the European payments sector in the last few years. Overall, we can indicate four major trends that are re-shaping this industry.

1. Even though they have historically been the most important players in this sector and covered the whole payments value chain, banks are increasingly starting to exit this business by outsourcing some of their front-end and back-end payment activities to specialized players, through asset sales, set up of joint ventures or strategic partnerships. They are doing so as payments activities are considered non-core for banks, that hence prefer to outsource them to redeploy capital on their core businesses. The observed trend is for banks to retain the issuing business in house, while being open to outsource processing and merchant acquiring activities. Indeed, card issuing involves synergies to be exploited with other banking activities such as consumer deposits collection, as the bank can provide cardholders with a single bank account for all its bank-related activities and link it to the credit and debit cards issued for them.
2. Specialized PSP, especially mono-line merchant acquirers and processors, are pursuing economies of scale and geographical expansion through acquisitions. Indeed, both businesses have high fixed costs, and scale is critical to long-term competitiveness. The growing ambitions of these players are a good match with banks’ desire to divest non-core payment businesses to raise capital, and therefore they usually find ideal targets in banks subsidiaries or business divisions up for sale.

3. Diversified PSPs are leveraging on M&As to broaden their product capabilities and to improve their technological expertise, which is a crucial competitive factor in the sector in the medium-long term. Indeed, many payments players integrated along the payments value chain have been aggressively adding product capabilities via acquisitions, particularly in the areas of e-commerce, mobile, and gateway services.

4. Private equity buyers started to massively target the industry and are exploiting strong value creation opportunities. The appetites of financial buyers vary, but typically they are looking for strong franchises with stable core businesses that also offer strong growth or operational improvement opportunities. Businesses such as card payment processing, merchant acquiring or e-payments, characterized by recurring revenues and benefiting from the extraordinary growth of the payments sector as a whole, hence make payments companies the perfect targets for this kind of buyers.

All these trends are very interesting as they clearly show us how the European payments sector is undergoing profound changes and all of them are driving consolidation in the market. However, they are interesting for another reason also, that is the fact that the same trends were observable (and some of them still are nowadays) in the US payments market some years ago and contributed to give to that market the shape we analyzed earlier in this chapter. Moreover, if we add the recent movements towards an homogenous regulation that is creating a borderless market such as the US one, we can say that the European payments ecosystem is increasingly mirroring US market patterns, and is therefore expected to become more and more similar to it in the next years.

Therefore, we can summarize the expected developments for the European payments market in the three following aspects.

1. **Listing of large PSPs to seize market opportunities.**

   As we will see in more details in the next chapter, this has actually already started in Europe, with three IPOs in the last three years (i.e. Worldline in 2014, Worldpay in 2015 and Nets in 2016). However, many more domestic payments champions are expected to go public in the
next few years, with ICBPI’s IPO in Italy that can be considered already in the pipeline given the observed track record of its private equity shareholders. Moreover, there have been some rumors recently for a potential listing of SIA and SIX, in Italy and Switzerland respectively.

2. **Cross-border expansion of specialized payment players.**

   Indeed, most European payment companies could operate on a pan-European base, however the majority is still largely focused on the home market. All major US players, instead, enjoy a well developed international presence with strong footprints in Europe and Asia, as we saw earlier in this chapter. Therefore, more and more European domestic market leaders within their home countries are expected to pursue cross-border M&As in the next years, following the example of Worldline and Equens that paved the way.

3. **Smaller players inability to compete with international champions driving further consolidation.**

   As we said several times, scale is a crucial success factor within the payment business. Therefore large PSPs, as increasingly extend their size and benefit more and more from economies of scale, are expected to set market conditions that small, local player will be unable to meet. This will thus be in the next years a further trigger to the wave of consolidation that has recently taken off in Europe.

This concludes our roadmap towards the recent key milestones of the European payments market in terms of M&A activity. As we saw, this aspect is very interesting not only for the analyzed transactions per se, but because these deals include some important features that affect the sector as a whole and not only the parties directly involved. Furthermore, they can let us derive some common trends whose relevance goes beyond the transaction itself.

Anyway, we must specify that, while the recent trends indicated in this chapter are a matter of fact, given the several practical references of them we found in the market, the next steps we stated are obviously only expectations. We cannot know with certainty what will happen in the European payments market in the future, however the analysis of the US environment gives us great support to believe, with a good level of confidence, that these developments will actually take place.

What we can certainly say is that the European payments market is undergoing a period of intense M&A activity as never in the past and, even if it is way too early to analyze the final outcome of this process, we can say that the first results seem to be very positive and to bring benefits to the whole sector and the parties involved.
Chapter three: Payments within the Equity Capital Markets

As we mentioned in the previous chapters, one of the expected next stages of development for the European payments market is the increasing listing of large PSPs and of national market-leading payment companies. However, it is worth analyzing this aspect more in the depth, as the European payments equity capital market (“ECM”) showed some very interesting features in the past few years.

This chapter will try to the analyze the current shape of the European ECM environment, by focusing on listed payments companies. We will do so by first looking at the three key IPOs that took place in Europe in the last three years, i.e. Worldline in 2014, Worldpay in 2015 and Nets in 2016. With regards to these transactions, we will try to describe the main highlights of each offering, along with the rationale behind it. Then, as we already did several times earlier in this paper, we will compare the European ECM environment with the US one, as this proved useful, given the more advanced stage of development that this geographical area enjoys with respect to payments, in providing us an idea of the expected next steps for Europe. Finally, we will try to give an overview of how the market tends to respond to payments companies’ initiatives, by analyzing the 2015 Worldline / Equens deal described in the last chapter through an event-study methodology.
3.1 European payments equity market snapshot

No later than 3 years ago, only a very limited number of listed payments companies could be found in Europe. Indeed, the only European payment player that went public before the 2000s is the French POS manufacturer Ingenico, listed since 1985. Apart from that, in 2004 there was the IPO of the UK convenience payments operator Paypoint and in 2005 the one of Wirecard, German payment processor and e-payments solutions provider. As we can see, the European equity market for payments companies used to be (and still is) quite under-developed.

Anyway, as we already said in the chapters above, in 2014 this situation begun to change, and further developments are expected within the next years. Indeed, 3 payment companies went public in Europe within the last 3 years through very large IPOs, i.e. Worldline in 2014, Worldpay in 2015 and Nets in 2016. These transactions are expected to pave the way for the listing of more and more PSPs in the next few years.

This paragraph aims to describe the shape of the European ECM for payments, and to show why it currently must be defined as under-developed. In doing so, we will first analyze the 3 very important IPOs of Wordline, Worldpay and Nets since 2014.

3.1.1 Key recent IPOs

Before going into details of the three IPOs that represent the core topic of this section, it is worth to make a small introduction and try to understand at what stage of business development payment companies tend to go public and why. This usually happens when a firm reaches a certain maturity in terms of size, and of course the usual measures such as revenues and EBITDA are very important. Indeed, Worldline, Worldpay and Nets all reported revenues of approximately €1 billion when they decided to go public. However, another indicator is probably more important for players in this business, in order to understand a company’s size and maturity: the number of payment transactions managed. Obviously, this depends on the company’s positioning along the value chain, as for merchant acquirers this indicator is related to the number of transactions managed on behalf of their merchant clients while for processors this stands for the number of transactions processed on behalf of banks, but it is a key indicator for all payment companies in general. Not surprisingly, all large PSPs make great disclosure of the number of transactions they manage and process, as the market looks with great attention to this aspect. From an IPO viewpoint, there is no stated threshold in terms of transactions managed above which a company automatically goes public, however it is very unlikely that a company does so if this parameter is below 3.5-4 billion transactions per year. For the companies
considered in this section, for instance, we have the following data at the time of the listing: Worldpay, pure merchant acquirer, managed 6.85 billion transactions\textsuperscript{39} for a total value of $400bn; Nets, managed a total of 7.2 billion transactions, of which approximately 4 billion were merchant acquiring transactions and the remaining processing transactions\textsuperscript{40}; Wordline, finally, processed around 2.2 billion transactions in its core processing business, along with \approx 1.5 billion in merchant acquiring\textsuperscript{41}. Therefore, we can say that in order to assess whether a company is ready to go public or not, the market mainly looks at two parameters: a financial one (usually revenues, around €1bn) and a business metric (number of transactions processed, above 3.5-4bn). These numbers are also in line with those of another company, which is not yet listed but expected to do so in the very early future, that is the Italian ICBPI. Indeed, in 2015 ICBPI reported revenues of around €700 million, and managed 2.4bn merchant acquiring transactions\textsuperscript{42}, therefore is not yet fully mature for an IPO. However, we should consider that these data are stand-alone figures for ICBPI, while we know that the company announced the acquisition of Bassilichi in December 2016 and it is expected to acquire the merchant acquiring portfolio of MPS also. Moreover, ICBPI’s private equity shareholders also took over the Italian processor Setefi, and are expected to merge the two companies in the early future, as explained in the previous chapter. Only including Setefi’s pro-forma figures, ICBPI would get additional \approx 1.3bn revenues and \approx 1bn transactions, which would give to the company a size very close to those of Worldpay, Nets and Worldline pre listing, for both the key parameters considered.

Of course, this analysis is not an empirical one, and it is just based on the observation of what so far happened in the European payments market. However, it seems quite in line with what market participants believe in practice, as in general size is a crucial factor for a company to go public, and size in the payments business is mainly measured in terms of the two parameters considered.

After this due introduction, we can move to more practical issues and analyze the three IPOs we mentioned several times, in chronological order. On June 16 2014, Wordline announced the launch of its initial public offering expected to lead to the listing of its shares on the regulated market of Euronext Paris. Until then, Wordline used to be a fully owned subsidiary of the French-based Atos, one of the world’s largest IT services corporation specialized in hi-tech transactional services, unified communications, cloud, big data and cyber security services. The offering was completed on June 26 2014, when Atos sold \approx 30% of its stake at the IPO,

\textsuperscript{39} According to the Nilson Report as of May 2016
\textsuperscript{40} According to the Nilson Report and Nets IPO prospectus
\textsuperscript{41} According to the Nilson Report and Nets IPO prospectus
\textsuperscript{42} As of ICBPI website, https://www.icbpi.it/dati-di-sintesi/
remaining Worldline controlling shareholder also post-listing. Sale of existing shares by Atos amounted to approximately 320 million Euro\footnote{43}, and Worldline raised approximately additional 255 million Euro through the sale of newly-issued shares. Total size of the global offering was then \textasciitilde{\texteuro}660m, corresponding to a market capitalization for Worldline at the time of approximately \texteuro}2.1bn. Worldline’s shares begun to float of the Paris stock exchange at a price of \texteuro}16.4 per share, and their value increased consistently ever since, reaching \textasciitilde{\texteuro}26 in January 2017\footnote{44}. We can look at figure 28 below to better understand how the market value of Worldline’s stock moved since the IPO, as it shows us the time series of the price of a Worldline’s share since the listing.

**Figure 28: Worldline share price (€)**

![Graph showing Worldline share price from June 2014 to January 2017](source: Bloomberg as of January 2017)

As we can see, Worldline share price increased significantly and quite constantly with respect to its IPO value. As we will see below, part of this good market valuation is given by the deal with Equens announced in November 2015. However, two and half year later, we can affirm with good confidence that the IPO of Worldline was a successful one, at least according to the way the equity market sees the company.

With regard to the strategic rationale behind this listing, we can take as a reference the comments of Gilles Grapinet, CEO of Worldline. On 16 June 2014, the initial public offering announcement date, he stated\footnote{45}: “The IPO marks a new chapter in Worldline’s history and will open exciting opportunities for the group, its clients and its employees. It comes at a unique

\footnote{43} Including full exercise of the overallotment option
\footnote{44} Closing price as of 11 January 2017 of \texteuro}25.46
moment of opportunity for growth, thanks to the convergence of three phenomena: the digital and mobile revolution, the changes in the regulatory framework for the European payments sector and the shift in strategy by many banks following the financial crisis. As an innovative high-tech market leader in the European e-payments market, our IPO will help us take advantage of the forthcoming consolidation and future growth of the sector”. Moreover, commenting on the completion of the offering, Mr. Grapinet added46: “I am very proud of the success of Worldline's IPO. Our new shareholders have given a clear signal of approval for our strategy and for the growth potential of the European and global payments sector. The IPO will help us to accelerate our development and to play a key role in the consolidation of the European payments market”.

As we can see, Worldline CEO’s words perfectly summarize what we identified in the previous chapters as the main features characterizing the European payments sector recently. In particular, it emphasizes more than once the sector consolidation issue, that can therefore be identified as a key rationale behind IPO strategies as well as M&A ones.

We can now move to the already mentioned Worldpay IPO, that took place in October 2015. This is a bit different from the Worldline’s case, since as we know Worldpay shareholders were private equity funds that listed the companies to generate high returns rather than a strategic player willing to keep a majority stake in the company. Therefore, this offer is significantly larger than Worldline’s, as an higher stake of the company was sold to the public. Indeed, the offer raised total gross proceeds of approximately £2,160 million before the exercise of the over-allotment option, split between £1,212.2 million received by the selling private equity shareholders and £947.8 million received by the company through the sale of newly issued shares. Including full exercise of the over-allotment option, total offer size reached £2,484 million, resulting in one of the largest IPOs in UK of the last decade. Worldpay shares were admitted to trading on the London Stock Exchange on 16 October 2015 through a placing of 1,035,000,000 ordinary shares at 240p per share. With a total of two billion shares in issue, Worldpay finished its first day of trading with a market capitalization of £5.3bn. Following the offer, the selling shareholders held approximately 49% of Wordplay, but then progressively reduced their stake in the last years through subsequent sales.

As per the IPO strategic rationale, Sir Michael Rake, Chairman of Worldpay, commenting on the offer announcement said39: “Worldpay aims to lead the way in expanding global reach, data analytics and optimization, and the emerging field of integrated payments. I believe Worldpay is

---

very well positioned to continue its leadership in the ever-evolving global payments landscape. I look forward to contributing to this next exciting stage and helping Worldpay to achieve its vision to be the world’s most progressive and reliable payments partner, sharing insights and helping customers prosper”. On the same day, Philip Jansen, CEO of Worldpay said the following 47: “The IPO is an exciting and logical next step as we seek to continue this momentum. It will enable us to access new capital for growth, augment our global proposition and further enhance our ability to serve customers across the world.” Moreover, commenting on the successful launch of the offer, he added 48: “Today’s announcement is a significant milestone for Worldpay. We are proud to be a leader in global payments with a clear strategy for continued growth as a listed company. We have already invested over £1 billion in our technology, people and capabilities, helping us to become an advanced and sophisticated technology-led organization with great potential. We welcome our new investors and thank them for the strong interest they have shown in the offer. We look forward to developing as a public company and all the opportunities this will bring”.

Again, these comments give us important insights on why payments companies are more and more looking at the public for their funding. Indeed, the listed status opens greater opportunities to the company, in terms of access to new capital markets and customers, and enhances the company’s international credibility.

Finally, as we did above for Worldline, we can look at how Worldpay’s IPO performed in the aftermarket. Figure 29 shows us the evolution of the price of a Worldpay’s share since the listing in October 2015.

![Figure 29: Worldpay share price (£)](image)

Source: Bloomberg as of January 2017


As we can see, Worldpay’s post-IPO performance is surely not as positive as Worldline’s. However, we should first consider that this time series covers a shorter time frame than Worldline’s case, as Worldpay went public more than one year after the French company, therefore it is in a sense less “mature” from an equity market perspective. Moreover, the bad performance in the second half of 2016 is surely influenced also by the outcome of the Brexit referendum. Indeed, almost every UK stock suffered drops in value after this event, and also Worldpay was affected.

Finally, on 1 September 2016 Nets announced its intention to launch an IPO of its shares and to list on Nasdaq Copenhagen. As we already said, this transaction is very similar to Worldpay’s as the two companies shared the same major shareholders (i.e. Advent International and Bain Capital). The first day of trading and official listing on Nasdaq Copenhagen took place on the 23 September 2016. Offer price was set at DKK 150 per share, giving Nets a market capitalization of DKK 30 billion (~€4bn\textsuperscript{49}). The Offering amounted to DKK 15.75bn, corresponding to 105,000,000 shares sold in the Offering. DKK 5.5bn out of the total gross proceeds (or 35% of the offer size) were received by Nets through the sale of newly issued shares, while the remaining was collected by the selling private equity shareholders. Immediately following the settlement of the Offering, Advent International and Bain Capital held a combined, equally split, 40% stake in Nets.

We can consider also for Nets the stock’s post IPO performance, as shown by figure 30 below (figures are in DKK as Nets is listed on the Copenhagen stock exchange).

![Figure 30: Nets share price (DKK)](image)

Source: Bloomberg as of January 2017

\textsuperscript{49} Based on a EUR/DKK exchange rate of 7.3 as of September 2016
As we can see, some four months after the listing, Nets’ ECM performance has up to this point been quite poor, with the share price basically always below its IPO level. However, this is a too short time frame to already consider Nets’ IPO as a failure. Indeed, this outcome must also be put in the broader context of the European equity market as a whole, that in 2016 faced a significant slowdown compared to the previous years. At the time of Nets’ IPO, companies in Europe had raised about $22 billion\(^{50}\) from IPOs in the year to date, about half the amount they obtained in a similar period in 2015, as political uncertainty in key markets affected investor appetite. Rather than a failure given by the fact that the company was not ready for listing, this bad outcome is probably related to the fact that the share price set at IPO was over-rated, and possibly influenced by the very high valuations that payments companies tend to get, as we explained in the previous chapter.

Then, regarding the IPO rationale, it is interesting to consider the comments of Robin Marshall, a Managing Director at Bain Capital Private Equity and member of the Nets Board of Directors, to get an understanding of what drives payments companies IPOs from a shareholder’s point of view rather than from the company’s perspective. Commenting on the launch of the offering, Mr. Marshall said\(^{51}\): “Our ambition when we invested in 2014 was to help build the Nordics Payments Champion and it’s clear that Nets is now not only that but one of the best payments companies in the world. Reliability and security have been our top priorities, but we’ve also helped management to build an efficient business with a scalable platform and relentless focus on innovation and customers. These are hugely valuable qualities that have accelerated the company’s growth in an increasingly regulated, competitive and consolidating global payments industry.” Moreover, on the same day, Bo Nilsson, CEO of Nets, said\(^{42}\): “The IPO of Nets is the next step in the development of the Nets group following a period of rapid growth and considerable investment, during which the business has been transformed. Nets is now a highly commercial, customer-centric, innovative leader in the fast-growing digital payments space. We believe these changes, combined with our unique business model and the exceptional efforts from our employees, make us a company well placed for long-term future growth and a compelling story for potential investors.” Finally, Inge K. Hansen, Chairman of Nets, added\(^{42}\): “We are excited about the opportunity for new investors to participate in Nets’ future journey and would like to thank our customers for their continued support. We are proud to be a Nordic market leader in digital payments, and our planned IPO is the next step in our development to create a Nordic champion.”

\(^{50}\) According to Bloomberg

As we can see, common features as consolidation and scale were identified by Nets’ key stakeholders also, once again highlighting the fact that these are the top priorities for the players competing in this business.

This concludes our deep-dive in the recent IPOs of payment companies in Europe. These deals show us very interesting features, from different viewpoints. First, they clearly tell us how the seeking of public fund is increasingly becoming a priority for large PSP, as Europe experienced with regard to payment companies in the last 3 years the same number of IPOs as in the 30 previous years. Moreover, according to the key market participants such as payment companies’ CEOs, chairmen and shareholders, the rationales behind them are perfectly in line with the features we identified as those that are re-shaping the overall European payments market. Indeed, especially the three phenomena identified by Worldline’s CEO, i.e. the digital revolution, the changes in the regulatory framework for the European payments sector and the shift in strategy by many banks following the financial crisis, are perfectly in line with the features we analyzed in the above chapters.

Furthermore, as highlighted by Worldpay CEO; we get an important, practical evidence of how investments in technology are crucial success factors for payments companies, as he underlines the fact that the company invested over £1bn in technology in the years before the listing. Once again, this in one of the features that we highlighted in the previous chapters as key differentiating factor in the business and as the bulk of R&S spending in this sector.

Therefore, not only M&As are reshaping the European payments market, but also IPOs are playing are very important role, with all these drivers leading to the same common ground: a significant sector consolidation.

3.1.2 European and US equity markets comparison

In line with what we saw in the previous chapters, both in terms of key performance indicators and M&A activity, the US equity market for payment companies is significantly better developed than the European one.

We can already get an idea of this feature by considering the fact that the 3 largest listed payment companies in terms of market capitalization globally are US companies. These three corporations are also the most commonly known brands in the industry, i.e. Visa with a market cap of $181bn, MasterCard with $114bn and American Express with $68bn\(^2\). However, these three companies are the world’s market leading card networks that enjoy a global reach and whose business activities go well beyond the US national boundaries. Therefore, we can exclude

\(^{52}\) Market caps as of Bloomberg on the 20 December 2016
them from our analysis and consider only listed payment companies that compete in more dynamic segments of the payments value chain.

In doing so, a good starting point to compare the European and US payments market from an ECM perspective is given by figure 31 below, that shows us the cumulated market capitalization (in €bn), of payment companies in the two geographical areas.

Figure 31: Payment players’ cumulated market cap (€bn)

![Figure 31: Payment players’ cumulated market cap (€bn)](image)

Source: Bloomberg as of December 2016

Figure 28 has been derived in the following way: we considered all the European listed PSPs that we mentioned in the previous chapter, i.e. Ingenico, Paypoint, Wirecard, Worldpay, Worldline, Nets and selected for each of them one US player, the most comparable peer in terms of positioning along the payments value chain. Then, we simply added the market cap of all six European companies and of their US competitors.53

The comparable companies we choose are the following: Verifone for Ingenico, as the two companies have the exact same kind of business model, being the two global market leading POS manufacturers; First Data for Worldline, as the core business for the two is payment processing, but both are well integrated along the payments value chain; Vantiv for Worldpay, as both companies’ core business is merchant acquiring; TSYS for Wirecard, as they are both pure card processors, even though TSYS, as we said in the previous chapters, is becoming more and more integrated along the value chain; Global Payments for Nets, as both represent the greatest example in the two geographical areas of a payment company that covers all segments of the

53 EUR/GBP: 0.84, EUR/USD: 1.04, EUR/DKK: 7.43 exchange rates as of 20 December 2016
value chain; and finally, Euronet for Paypoint, as both companies are convenience payment solutions providers. As we said above, card networks have been excluded as they are too big in size to be compared with these other peers. Moreover, no listed card network company can be found in the European payments space.

What figure 31 tells us is that the main participants in the US payments ECM are, in terms of market valuation, two times more valuable than the largest European payment companies. Moreover, not all US listed payment companies are included in that figure, as we limited the analysis only to six selected peers as to make the comparison with the European market. Indeed, not only US card network are excluded by figure 31, but some other important players are not considered, as for example the payment processors FIS and Fiserv and other important convenience payments operators such as Western Union and Moneygram.

Therefore, we can conclude that not only in Europe there are far less publicly listed PSPs, but also on a like-for-like basis, US companies are better valued by the equity market. In it strikingly clear that the European payment ECM is at a lower stage of development compared to the US one, as it is the case for the overall sector.

Anyway, as it was the case for the analysis of the payments sector M&A activity, the US market can be a good reference for us to predict what is likely to happen in Europe within the next few years. Indeed, apart from the case of TSYS, whose IPO took place back in 1983, most of the companies analyzed above went public in a time frame that goes from the late 1990s to the early 2000s (e.g. Euronet in 1997, Global Payments in 2001, Verifone in 2005). Hence, we can conclude that once again the US market anticipated some years in advance what is currently happening in Europe, resulting in a more mature equity market for payment companies in addition to a more penetrated and consolidated business environment.

However, as it was the case for M&As, where we analyzed references of two large deals that were completed recently, very important from a consolidation point of view, also the US payments ECM cannot be considered fully saturated. Indeed, we do not need to go 10 years back to find the latest reference of a US payment company IPO. As we already mentioned in the previous chapters, in 2012 there was the IPO of Vantiv, representing the exit strategy of its private equity major shareholder Advent International, the same player behind the IPOs of Worldpay and Nets in Europe. Moreover, First Data went public in October 2015 in the largest US IPO of the year\textsuperscript{54}. Even in this case there was a private equity investor behind the listing, that is KKR, who acquired the company in 2007 and still holds a majority stake in it.

These two transactions show us some interesting trends. First, the appetite of private equity investors for payment companies that we observed for Europe characterizes the US market as well, and the exit strategy of choice for these investors is the same in the two geographical areas, that is the listing on the stock exchange. Then, they also give evidence of how, even though the US payments ECM is at a more advanced stage of development compared to the European one, it cannot be considered fully mature. Indeed, payment companies still seek public funding even if the main wave of IPOs took place some years ago.

With regard to Europe, as we said several times, an IPO wave is currently ongoing, and the expectation is that it will last for some time as some payment companies IPOs are in the pipeline (e.g. ICBPI and SIA in Italy, SIX in Switzerland). These transactions are therefore expected to partially close the gap highlighted by figure 28 between Europe and USA in terms of payments ECM development.

In concluding this section, we must anyway recall that these differences between European and US ECM with regard to payment companies are in part related to differences of the two geographical areas equity markets in general. Specifically, we can identify two main differences among the two that make the competitive environment for US and European players quite dissimilar.

First, the USA are one single country, with one equity capital market and uniform regulation (along with other ancillary features that still tend to influence investments, such as for instance habits and language). Europe, instead, notwithstanding all the efforts at European Union level to establish a “Capital Market Union” and eliminate boundaries among member states, still is a group of several national entities rather than a single nation. By consequence, European citizens may be in some cases reluctant to make investments outside their home country, due to the phenomenon known as “Home Country Bias”, according to which investors tend to focus more on their home markets and the companies that do business within these markets, because they are familiar with them. As a result, the European equity capital market is surely more fragmented and less integrated among different countries than the US one, and this feature is true not only for payment companies but it can be identified in all business segments.

Then, another key feature that marks a difference between Europe and USA at ECM level is the reliance of corporate companies on bank financing. The fundamental difference in corporate funding between the USA and Europe is that European companies rely far more heavily on bank lending. Overall, some 80 percent of corporate debt in Europe is in the form of bank lending,

with just 20 percent coming from the corporate bond markets and private investments\textsuperscript{56} – almost the inverse of the US. This is due to several reasons. First, many companies and individuals in Europe have a cultural suspicion of risk-taking, entrepreneurialism and capital markets. This is also reflected in their savings habits: while Europeans save more than people in the US, far less of these savings are invested. Moreover, the structure of the European banking system, with a series of national champion banks traditionally operating within their own borders, allied with a strong local network of regional banks has historically made bank lending the default option for most companies. Alternative sources of funding such as capital markets in Europe have only in the past few decades begun to catch up with the US, also because as we’ve already recalled they have historically been fragmented across national borders (and in some sense still are). This is reflected in the significant gap in depth between Europe and the USA in most sectors of the equity capital markets.

Therefore, not surprisingly the overall European equity capital market is less developed than the US one, with less companies seeking public funding and a general lower propensity towards investments of this kind. This obviously also affects the payment sector, and contributes to the lag between European and US ECM with regard to payments. However, notwithstanding these specific differences at a broader, general level, the features that we identified in this section specifically related to the payments industry are important nevertheless, with an IPO wave already undergoing that is expected to narrow this gap. Moreover, the overall European countries domestic financial markets are increasingly becoming more and more integrated among themselves, with the already mentioned Capital Market Union that does not seem anymore so unlikely. This may effectively abolish some of the obstacles we stated above to the further development of the European ECM, such as the Home Country Bias. Therefore, the general expectation is that this gap in terms of ECM development will be reduced in the next few years, not only at payments industry level.

\textsuperscript{56} http://openmarkets.cmegroup.com/10431/how-u-s-and-eu-capital-markets-are-different
3.2 Market reactions to payment companies’ initiatives

Another feature that is worth analyzing when discussing the payments sector from an ECM perspective, is how the market tends to respond to payment companies’ initiatives. Specifically, it is interesting to notice how the equity market sees the consolidation process that is currently undergoing in Europe.

Unfortunately, this is not always an easy task, as up to this point most of the M&A transactions that are reshaping the European payments landscape involved private companies. The majority of the listed players that undertook such deals are in fact banks, and given the fact that usually payments activities are very marginal for them, both in terms of size and business relevance, not always their stock price captures the effects of these transactions.

Anyway, a first reference of this kind can be given by the acquisition of a 15% stake in the Italian market leading processor SIA by Poste Italiane, that, as we already recalled, enjoys a leading domestic positioning in the Italian debit and pre-paid card markets. Poste Italiane is in fact listed on the Italian stock exchange, and the deal was very well welcomed by several equity investment analysts.

However, the key and most relevant reference of this kind that we have is given by the most important consolidation deal observed so far in Europe, that was portrayed by a listed PSP: the Worldline / Equens transaction.

This paragraph hence tries to analyze this deal from a different perspective than the one adopted in chapter two, that is from an ECM rather than an M&A point of view. As we can see, even if it is the only reference of such we can have, this deal shows some clear tendencies and very interesting features that can still help us get an idea of how the market reacts to payment companies’ initiatives.

3.2.1 Worldline / Equens transaction event study analysis

As we already said several times, the transaction announced in November 2015 and completed in September 2016 that involved Worldline and Equens represents the biggest step towards consolidation in the European payments sector.

Therefore, what we did is to analyze the performance of Worldline’s share price through an event-study methodology, in order to analyze how this M&A event affected the stock’s performance. Figure 32 below hence shows the performance of Worldline stock in a 30-day time frame, that goes from the 28 October 2015 (one week before the deal announcement) to the 27 November 2015. To better evaluate this performance, the reference index for Worldline (i.e. the
French CAC40) has been included, along with an ad-hoc index composed of some of the key Worldline’s peers, weighted in terms of market cap (i.e. TSYS, First Data, Worldpay and Wirecard). For comparison purposes, the values for these indices have been rebased to the Worldline’s stock price level as on the 28 October 2015.

As we can see from the figure, post deal announcement, Worldline significantly outperformed both its peers and its reference index. Indeed, Worldline posted a +10% increase over the time frame considered by figure 32, while the peers’ payments index went up by 5% only and the CAC40 posted a mere 1% increase. Given the short time frame, and the fact that this performance is higher than both the one of the reference market and of its competitors, it can be inferred with good confidence that the rally of Worldline’s stock price as shown by the figure was driven by the deal with Equens. This is a first, clear evidence of how the equity market actually responded very well to this movement towards consolidation within the payments sector.

Moreover, another evidence of such can be found by looking at investment analysts consensus over Worldline. As a matter of fact, the target next twelve months EV / EBITDA for Worldline
went up from 10.6x on the 28 October to 11.7x on the 27 November 2015\textsuperscript{57}. Again, such jump in a so short time-frame is surely correlated with the deal announcement, given also the fact that no revisions of earnings estimates were released by Worldline over that period.

Furthermore, the average investment analysts’ consensus target price\textsuperscript{58} for a Worldline share went up from €22.08 at the end of October (i.e. right before the deal announcement) to €24.36 one month later. Even in this case, this 10% jump is surely related to the transaction.

As we can see, there is a strong evidence that the equity market reacted in a very positive way to the deal between Worldline and Equens. Indeed, +10% in share price, an increase in the expected EV / EBITDA multiple and an higher target share price all point in the direction that the market welcomed this deal very well. Of course, part of this positive reaction is to be attributed to some of Worldline’s peculiar characteristics and to the deal’s peculiar features, but we can also derive that it is driven by a general propensity of market participants in favor of consolidation in the payments sector. Indeed, as we also noted when we analyzed Worldline CEO’s comments on the transaction, consolidation was the main strategic rationale behind the transaction, and therefore a market reaction to the deal can be seen as a market reaction to payments sector consolidation as well.

This concludes our analysis of the European payments sector from an equity market perspective. As we saw above, two are the main takeaways of this chapter: (i) the fact that the European payments ECM is currently under-developed, especially compared to another market such as the USA, but a wave of IPOs of large payment companies recently started and (ii) the evidence, as suggested by the Worldline / Equens case, that the equity market seems to respond well to payment companies’ initiatives, especially if they represent moves towards consolidation in the sector.

Along with chapter two, this chapter is very important as it gives us practical references of the current shape of the European payments industry, and helps us support the expected next developments for the sector that we identified earlier. Indeed, as it was the case for the M&As, the US equity market gives us a good proxy of how the European ECM may be in 5-10 years from now. It is true that most of the findings of the study on IPOs and the strategic rationales behind these deals are basically the same as those identified for M&A transactions in chapter

\textsuperscript{57} As of Bloomberg
\textsuperscript{58} As of Bloomberg
two, but an analysis of the equity market is very interesting nonetheless, as listing is a crucial step that all large PSPs will have to take eventually.

In conclusion, we can say that an analysis of the European payments ECM gives further evidence to some of the key features of the overall payments sector that we already pointed out in the previous chapters: (i) the fact that a consolidation process is undergoing, (ii) the fact that scale and dimension are a crucial success factor in this business and (iii) the fact that, at a certain point, international expansion is key for a PSP to grow the business. IPOs and the seeking of public funds seem to represent a very good way to achieve these goals.
Chapter four: Risks and threats of FinTech and of the rise of payments

In the first three chapters of this paper, we focused on the payments industry only and analyzed it in depth from different viewpoints to get an understanding of the current shape of that market and the main trends characterizing the activity of payment companies. We mainly focused on the European payments market, as that is the core topic of this work, but gave also important references of trends ongoing in another geographical area, the USA.

In this concluding chapter, we will once again broaden our discussion as we did in the Introduction of the paper and go beyond the boundaries of the payment industry, by focusing on the broader FinTech environment. We will therefore consider some important aspects related to the recent rise of FinTech, that are relevant for payment companies nevertheless: the main potential risks, threats and costs that traditional players have to face due to the digital disruption that is taking place in the financial services industry as a whole.

In order to get a first, preliminary understanding of this aspect and of why it is relevant for the payments industry, we can look at figure 33 below.

**Figure 33: Estimated share of business at risk due to the rise of FinTech**

![Bar chart showing estimated share of business at risk due to the rise of FinTech]

Figure 33 shows the results of a survey that includes feedback from 544 respondents, representing players from the world’s top financial institutions (e.g. CEOs, CIOs, Heads of Innovation). The people surveyed have been asked the following question: “What percentage of your business is at risk of being lost to standalone FinTech companies within 5 years?”. The percentages above represent the average of the results of the survey, in the sense that each respondent indicated for each business in which it works the part of traditional business (in terms of revenues) that, in his / her opinion, is at risk. Therefore, market participants believe that, on average, will be at risk 28% of payment companies’ revenues, 24% of banks’, 22% of asset and wealth management companies’ and 21% of insurance companies’.

As we can see, among the financial services considered, the business which is likely to face greatest disruption according to the respondents is the payments business. Therefore, it is worth to consider the main potential risks related to the rise of FinTech in general, as they automatically apply, in most of the cases, to the payments industry also.

Moreover, other digital disruptions that characterized other businesses in the recent years give us the evidence that it is worth to analyze these potential risks, as they are consistently likely to affect traditional players in the market. Airbnb for the hotel and accommodation industry, Netflix and streaming videos on the video rental market, Uber for taxis and transportation are just some examples of recent disruptions that provide us with useful insight on how new technologies may result in loss of revenues for traditional players. Of course, the overall financial services environment and the payments industry show some peculiar features that are not shared by the markets mentioned above, however these potential risks should not be completely ignored. Indeed, the potential risks of FinTech share many common features with the usual “tech risk” that characterized many other businesses in the past (such as the development of computers, cars, jets and so forth), that is the fact that a flow in a part of the automated processes may cause serious troubles and negatively affect the business, hence the tech innovation needs to be flawless and perfectly efficient. However, the tech risk in the financial services sector goes in a sense beyond that, given the very important thing that is traded and managed in this market: people’s money and savings. Therefore, financial innovations need to be not only perfectly efficient and sound, but also customer-friendly and “trustworthy”. This is something that adds up to the usual tech risk that innovations imply in every business.

This chapter aims to describe different potential sources of risk for payments companies, by analyzing those at the broader FinTech level. It also highlights some of the main threats that

---

traditional players are likely to face in the next few years due to the rise of FinTech and the development of new technologies.

In doing so, we will mainly distinguish among two different kinds of risks: (i) “micro risks”, i.e. risks that arise at single company’s level, and that depend on the firm’s size, business model, technological development and flexibility, especially in relation to the capacity of adapting and reacting to changes; and (ii) “macro risks”, i.e. the risks that the overall competitive environment for traditional companies may be reshaped, in terms of new minimum business standards, different regulation and changes in the sector’s overall riskiness.

Moreover, there is another threat that is worth mentioning, that is the risk that innovation and new technologies, that are generally good and very well welcomed by the overall financial market, may be used for different purposes than the seeking of efficiency and the fight against black economy that we mentioned earlier in this paper. Indeed, some of them may trigger speculative, anti-competitive and in some case illegal behaviours that damage the industry rather than benefiting it. With this respect, it is necessary to mention the example given by Bitcoins, the crypto currency that boosted the online black market consistently over the last years. Therefore, at the end of the chapter, we will also analyze separately the practical reference of this kind of risk given by Bitcoins.
4.1 Risks and threats at micro level

As we said above, when analyzing the risks that a sector is likely to face it is better to distinguish among risks at micro and macro level. In describing the former, we can once again take as a reference the Global FinTech Survey 2016 that we mentioned earlier and look at figure 34 below:

![Figure 34: Top threats related to the rise of FinTech](image)

In relation to figure 34, the question that market participants were asked to answer was the following: “What are the threats related to the rise of FinTech within your industry?”. The percentages shown by the figure stand for how many, out of the total of people surveyed, identified the threat in question as one that his / her industry is likely to face. Only the main threats are therefore indicated here, such as those that at least 50% plus one of the respondents identified as real. Therefore, the four key threats for traditional payments and financial services companies, as identified by market participants are the following: (i) pressure on margins, (ii) loss of market share, (iii) threats related to privacy information security and (iv) increase of customer churn. All these issues are very interesting, and surely related to the payments industry.

---


---

even though they are identified at FinTech industry level, as some were already pointed out earlier in the paper. Anyway, it may be worth to describe each of these features separately.

According to the survey, two-thirds (or 67%) of the respondents ranked pressure on margins as the top FinTech-related threat for their company. Even if it is not necessarily clear at a first glance, this is directly related to some of the features of payment companies that we described in the previous chapters. As we said, in fact, the payment business is currently being characterized by strong innovation, and great technological developments are changing the way traditional players compete. One of the key ways in which FinTech supports the pressure on margins issue is the fact that innovation leads to improvements in operating costs. For instance, the movement towards standardized and highly technological infrastructures and payment platforms not only decreases up-front costs for companies, but also recurring ones. Hence, industry players are expected to deliver increasingly high margins, and those who are not able to do so are considered as not efficient by the market. Not surprisingly, all the main payment players analyzed in chapters two and three show EBITDA margins\(^{61}\) consistently above 20% (e.g., Wirecard 30%, Worldpay 39%, Nets 30% in Europe, TSYS 34%, First Data 25%, Vantiv 48% in the USA). This is surely a problem for smaller players, that in many cases struggle to deliver such strong performance, but it is a threat for big players also as they are in some sense forced to deliver always increasing margins year after year, as a change downwards in those is seen as a very bad signal by the market. About this aspect, we can also clarify why the EBITDA of the companies mentioned above tend to differ. This surely depends on specific characteristics of each company, such as the efficiency of its IT infrastructure, but it is also related to the company’s positioning along the payments value chain. Indeed, pure merchant acquirers such Vantiv and Worldpay tend to show the highest EBITDA. Processors, such as TSYS, tend instead to be one step below. Then, there is a tendency that shows that EBITDA margins slightly decline the more a company is fully integrated along the value chain. The other players indicated above all compete in basically all segments of the card payments value chain. This is surely related to the fact that, by focusing on one business only, a company can better exploit economies of scope and increase efficiency for this reason.

Then, with regard to the second aspect, that is loss of market share, we can say that it is totally in line with what we observed as the trends and expected developments characterizing the payments sector. Indeed, a consolidation process is undergoing, and more and more companies are facing an erosion of their market shares as large, international players become more and more powerful. This is surely due to the fact that the largest players in the market are also those

---

\(^{61}\) EBITDA margin considered as the most relevant for the payments business
who can place more resources and make more investments in new technologies, therefore benefiting from the rise of FinTech rather than being challenged by it. It is less likely, instead, that we will see within the payments industry a ground-breaking disruption as it happened in some different sectors, as for example those mentioned above (accommodation, transportation, television). It cannot be a priori excluded that something like this will ever happen in the future, however is seems quite unlikely. It is more probable, instead, in some other segments of the financial services industry where the FinTech revolution is expected to bring more revolutionary changes, for instance in the trading and capital markets with innovations as the robo-advisors.

The two remaining aspects, instead, are more oriented to the area of gaining and maintaining relationships with customers rather than related to efficiency and business results. The first one, the issue of privacy and information security, is connected to the fact that the financial services market as a whole is moving towards simplicity and full transparency as a tool to fight anti-competitive behaviours and the black economy. This leads to the fact that many innovations, also in relation to payments, ask the customers to provide financial institutions or PSPs with lots of details, for example related to their bank account or credit cards. This is not always very well welcomed by customers, especially those that have traditionally been far from technology and innovative financial products. A very simple example of this aspect is given by an online purchase, in which the customers is required to provide personal details and all its credit / debit cards credentials. Many customers are reluctant to do so. Therefore, increase in FinTech innovation goes hand to hand with an increase of measures and provisions that firms have to undertake in relation to customer protection, privacy and security. This can be in many cases challenging for financial services companies in general, and payments companies in particular, that tend to deploy many resources to the development of fraud detection techniques and customer authorization methods. Customers want their privacy, also when dealing with financial services and they always seek protection when performing payments, therefore they tend not to adapt so easily to innovative products for security reasons. With the extraordinary growth of FinTech in the latest years, this represent a challenge that many financial services providers have to face in their everyday business. However, we must say that financial services companies already deal with this issue in their everyday business. Payment companies in particular always have a business division whose only task is to grant customer protection and security and to cooperate with competition authorities to detect and fight frauds. With regard to e-payments online, this issue has been partially solved by the implementation of unique and standardized authorization measures, that are always the same regardless of the PSP that provides the service and the type of card used for the purchase. However, this still represents a cost in the sense that,
when they are proposing an innovation to the market, FinTech companies have to think of how to solve this issue a priori and how to gain customers’ trust, otherwise it is very unlikely for the innovation to be successful.

Finally, the last threat identified by the survey is an increase in customer churn. Churn is an indicator of customer loyalty, as it represents the customers that cut ties with the company providing a given, recurring service to go to a competitor. Indeed, the “churn rate” is an extremely important measure for some kinds of business, such as the mobile phone or pay TV industries, where customers tend to change a lot among service providers to get better terms and cheaper contracts. For the financial services providers, instead, customers’ churn has not historically been a great issue, as these businesses tend to be characterized by quite low churn rates. Payment companies, in particular, do not really take it as a great issue, as for cardholders and merchants it is usually quite costly to change partners several times, and the conditions set by different providers do not change much, as in some cases they are also imposed by regulatory constrains (i.e. the Interchange Fees regulation analyzed in chapter one). However, financial innovations and the rise of FinTech partially changed this aspect, and it is expected to change even more in the future. Just to mention a simple example, many merchants recently switched from physical to mobile POS, that are in many cases provided by specialized FinTech companies and not always by the traditional POS providers. As 53% of the survey respondents indicated this aspect as a potential threat, this is surely a real issue that may affect financial services providers and payment companies in the upcoming years.

These are the core threats and “micro risks” related to payments and the rise of FinTech. The main impact for traditional financial service providers will be the surge of new business models, in most of the cases highly tech-related, that will create challenges for market participants. This can be in some respects associated with what started some years ago and is currently undergoing in the banking industry with relation to payments, where banks see more and more clearly that the best course of action for them is to turn away from trying to control all parts of their value chain and customer experience through traditional business models, and to seek efficiency through partnerships with specialized players, that grant their customers the same, high level of service.
4.2 Risks and threats at macro level

In the last paragraph we identified the core risks and threats for traditional financial services providers at company level. Now, we will try to point out those at a broader, macroeconomic level, that are risks affecting the financial sector as a whole and threatening to massively reshape the overall competitive environment. With regard to this aspect, we must say that these risks are mostly related to regulatory issues. Indeed, a common challenge that traditional financial companies face with regard to FinTech is regulatory uncertainty. FinTech represents a challenge to regulators, as there may be a risk of an uneven playing field between the traditional financial services providers and FinTech companies. However, the problems do not correspond to specific regulations, but rather to ambiguity and confusion. Again, based on the results of the already mentioned Global FinTech Survey 2016\textsuperscript{62}, traditional industry players are concerned as it is not clear which regulatory agencies govern FinTech companies, which rules apply to them and, specifically, which FinTech companies have to adhere to which regulations.

As a matter of fact, innovations are at first necessarily deregulated, as the legislative process always takes time. This is true for innovations in every field, but for financial innovations in particular, as the financial market is very dynamic and fast-changing and financial regulation is in most of the cases slow to react. We observed this feature several times in the past when innovative financial products were created, such as derivatives or securitized products. Now, it is in a sense happening for FinTech innovations also, as some of them were not available in the market in the past in any form. The risk for traditional players related to this aspect is the fact that this may result in over-regulation, that may trigger higher costs for them and reduce efficiency in the overall market. In fact, some regulatory initiatives (such as the mentioned Interchange Fees regulation or the SEPA initiative) are indeed good for competition, as they reduce barriers and create a level playing field among market participants, but in other cases they may damage traditional industry players in order to grant more stability to the system. In particular, small players struggle to navigate a complex, ever-increasing regulatory compliance environment as they strive to define their compliance model.

Then, we can identify another potential “macro risk” of FinTech, related to this issue but in a sense broader. This is also the core risk that the overall financial services sector will face in the next years, and the reason why there is a still quite high number of market participants that look reluctantly at the FinTech revolution: the risk that the success of FinTech is not based on market fundamentals but rather on short-term euphoria. Many industry players and economists believe

that this is a financial bubble, and therefore will not last long. Indeed, all bubbles eventually
burst, and when they do, the consequences for all the players that fostered the bubble are
dramatic.
At the current stage of development, it is not possible to state with certainty whether this risk is
real or not. However, it is true that the rise of FinTech shows some typical features that usually
all financial bubbles share. First, there is the deregulation issue that we’ve just stated. In fact, all
bubbles are usually triggered by innovations that create disruption in a given market. Since, as
we said, innovations are by definition deregulated, many players usually undertake “moral
hazard” and risky behaviours when approaching to them, that feed the bubble. Then, during a
financial bubble there always is a very intense market activity in the disrupted sector, usually
accompanied by very high valuations and attractive investments. Again, this can be associated
with what is happening in the FinTech industry in general and the payments sector in particular,
with the large M&A deals and IPOs that we described in the previous chapters. If FinTech’s
success actually hides a bubble, these valuations will in few years show as overrated, highly
damaging the companies that undertook these investments.
Anyway, especially in relation to the payments industry, this financial bubble issue does not
seem very likely nowadays. It is true that recent valuations of payments companies are in many
cases very optimistic, as basically all companies in the industry are valued within a very high
range of 10x-13x the EBITDA on average, but most of the industry participants do not anticipate
any cliffs or bursting of bubbles in the near-term. Rather, a reasonable expectation is for some
rationalization of valuations and for some trail-off in liquidity and a lower availability of
attractive targets as consolidation starts to become more visible.
This issue seems instead more likely in other FinTech segments, as there appear to be some
-cracks developing in specific sectors like peer to peer lending and robo advisors. For instance,
the lending industry is under intense scrutiny by investors and regulators and many industry
players are struggling. To give a practical reference, the stocks of Lending Club, a US leader in
peer to peer lending that went public at the end of 2014 have plummeted and are trading at all
time lows. The share price of the company went in fact down 77% from the IPO price of $24.69
to $5.66 in January 2017\textsuperscript{63}.
However, in conclusion we can say that, even though some FinTech related deals that took place
in these years were surely over valued and driven by the general market euphoria towards
FinTech, the fact that all this represents a bubble that will burst and trigger a potential crises for

\textsuperscript{63} Source Bloomberg, closing price as of 9 January 2017
the financial services sector seems quite unlikely. Nevertheless, this risk should not be completely ignored, as many market participants constantly tend to recall. These are the main risks that can be associated to the rise of FinTech at macro level. Both of them can potentially bring very bad consequences for traditional financial companies: on the one hand they may determine an high increase in costs for them in case of over-regulation; on the other hand, the consequence may be a collapse of the FinTech environment as a whole, which could lead to huge losses suffered by the players that invested in it. As we said, the latter is actually a quite remote circumstance, while it is more likely that the regulatory framework for FinTech players will become more tight in the next few years, affecting not only newly born FinTech companies but also more traditional and mature players.

Now, after this discussion at FinTech level, we can try to focus more on the European payments sector that is the topic of this work and try to identify some key macro risks that it is likely to face. As we said several times, especially in chapter one, one of the key aspects that determined the extraordinary growth of this sector in the last few years is the fact that the competitive environment for payment companies is becoming more and more integrated at European level. Indeed, on the back of several regulatory initiatives that we described, Europe is becoming more and more a large, single nation for payments with no national boundaries rather than a conglomerate of states. This created lots of new opportunities for companies in this sector, and boosted card payment and e-commerce penetration in many key European countries.

The risk that can be associated with this aspect is that a slowdown in this European integration would have negative effects on the European payments sector and would once again create obstacles to payment companies’ businesses that in recent years were removed. Therefore, the risk that the sector is facing is political, and it is related to the fact that the European Union is facing the most troublesome years since its establishment. European Union and the Euro always had their detractors and have always been seen reluctantly by some European citizens, but the overall attitude towards them has historically been positive for the great majority of European citizens. However, maybe also on the back of the several crises that Europe had to face in the last decade, in the last years these bad feelings towards the idea of an integrated European financial market and a single currency spread consistently. In many countries, the “out of Euro” idea is at the centre of the agendas of political parties that get lots of consensus from citizens. The peak, up to this point, of this anti-European attitude has been reached in June 2016 with the outcome of the Brexit referendum in the UK, where the majority of people voted in favour of leaving the European Union. At the current stage, it is way too early to assess whether there will be in the future some similar choices of other countries, and whether this will seriously damage the
European Union and mine all the efforts that were done in the past to develop that idea. What is clear is that Brexit referendum’s results fostered consistently the anti-Euro believes of many individuals and political parties that we mentioned above, and some developments related to this issue are to be surely expected in the early future. It remains to be seen in which direction these developments will point.

As we said, given the great benefits that European integration brought to the payments sector, it is strikingly clear why this issue represents a crucial risk for payment companies. It is too early to say whether it will determine a slowdown in the development of the overall sector, but it is surely something that market participants cannot ignore.

In conclusion, we can say that the macro risks identified at FinTech level are surely relevant for payment companies, as they represent maybe the largest segment of FinTech and are then by consequence affected. However, the “anti-Euro” risk that we identified is surely the most relevant for companies competing in this business, as it may directly affect their activity and create obstacles to their growth.
4.2.1 *The Bitcoin case*

To conclude this chapter on risks and threats related to FinTech, we can mention a peculiar kind of risk that is related to financial innovations: the possibility that they are used to circumvent financial regulation with purposes far from efficiency seeking and cost reduction, but in order to give rise to moral hazard behaviors that, in extreme cases, may lead to financial crimes and illegal actions. In analyzing this issue, it is worth to consider a circumstance that gives us a practical reference of this, that is the rise of Bitcoin.

Bitcoin is a virtual currency independent of any central authority, capable of being transferred electronically at very low transaction fees. This currency is based on a ground-breaking FinTech innovation, that is expected to mark revolutionary changes in the future payments sector, that is the so called “Blockchain” technology, that we already mentioned earlier in this paper. Blockchain is a distributed ledger which takes the form of a tamper-proof database that can verify the validity of all transactions. This operates in parallel to a set of monetary incentives (the Bitcoin currency) to encourage the network’s owners to keep the ledger updated. Indeed, Bitcoin supply does not work as currency supply in a centralized economy where currency is issued by a central bank at a rate that is supposed to match the growth of the amount of goods that are exchanged so that these goods can be traded with stable prices, and the monetary base is controlled by a central bank. Bitcoin system can be defined as a “fully decentralized” monetary system, where there is no central authority that regulates the monetary base. Instead, currency is created by the nodes of a peer-to-peer network. The Bitcoin generation algorithm defines, in advance, how currency will be created and at what rate. Any currency that is generated by a malicious user that does not follow the rules will be rejected by the network and thus is worthless. Indeed, Bitcoin is controlled by all Bitcoin users around the world. In order to stay compatible with each other, all users need to use software complying with the same rules. Bitcoin can only work correctly with a complete consensus among all users. Therefore, all users and developers have a strong incentive to protect this consensus.

Bitcoin notably took off in 2013 as more websites started to accept the virtual currency, but it shortly became popular as a crypto-currency, used to perform illegal purchases over the internet rather than a virtual currency that grants fast and secure cashless transactions, which is the original goal of the Blockchain technology.

Therefore, up to this point, the consequences of the innovative Blockchain technology have been not so positive, as it indirectly boosted the black economy rather than benefiting the financial services market. However, it must be highlighted that Bitcoin is just one special use of Blockchain, and many will be the benefits of the adoption of the Blockchain technology by the
traditional financial services providers when it will be mature (that is, not earlier than 2025 according to market participants estimates). Infrastructure costs reduced in data management and transactions settlement, faster processes, lower capital requirements and greater security are indeed just some of the expected benefits of Blockchain. Not surprisingly, financial services companies are increasingly investing in Blockchain technology: MasterCard, Santander, UniCredit, Visa, American Express, Goldman Sachs, BBVA, Citi, Fiserv, Capital One are in fact just some of the most popular companies that are deploying R&D resources to the development and implementation of Blockchain in their traditional infrastructures.

The Bitcoin case works very well in providing us a practical reference of how a FinTech innovation, that has the potential to bring extraordinary benefits to the overall financial system, may in practice imply some costs also, as it may be used in anti-competitive and speculative ways by some market players. However, the Bitcoin currency is interesting from another viewpoint also, that is in helping us get an idea of how FinTech products can in practice be very volatile, and therefore the “bubble” scenario that we described above, even though very unlikely, should not be a priori excluded. We can do so by looking at figure 35 below, that shows us the historical time series, in US dollars, of the market price of Bitcoin in the time frame January 2012 – January 2017.

**Figure 35: market price of Bitcoin ($)**

![Graph showing the historical price of Bitcoin in US dollars from January 2012 to January 2017.](image)

*Source: Bloomberg. Ticker: XBT Currency. As of January 2017*
As we can see, several interesting features emerge from figure 35. First, we can see how Bitcoins, that were originally developed back in 2008, were essentially worthless until the beginning of 2013, when their value in few month rocketed, with a nearly 200% increase. Then, we can see how, in less than one year the market price for Bitcoin halved from its November 2013 peak of $1,137. Currently we are once again facing increasing trends, with the value of a Bitcoin around $900, but in general the graph clearly shows us how the value of the virtual currency demonstrated to be extremely volatile. The behavior of this market value over the July 2013 – July 2014 timeframe clearly reflects what usually happens to the price of a given financial product during a bubble, and after the bubble bursts. Obviously, it is not enough to derive that this will happen to every FinTech related products or company, but this feature is surely interesting and gives some support to the thesis of who identifies a financial bubble going on in the FinTech ecosystem.

This concludes our overview of the key risks and threats related to the FinTech world in general, and to the payments industry in particular. For the purpose of this work, we believed it was better suited an approach at the broader FinTech level, rather than a focus on the payments segment only, as some risks (especially those at macro level) can be better identified in this way, and may still affect the payment companies if they should proved real. Indeed, some of them seem very remote and unlikely, but it is worth mentioning them nevertheless, especially given the fact that they were identified by the players that actually compete in the industry.

In conclusion, we can say that the issues identified at “micro” level can be seen more as threats or additional costs for traditional companies, rather than risks that may result in their failure or bankruptcy. The most relevant risk, that could really put many financial services providers in troubles should it prove real, is the “financial bubble” issue. However, this is also the one that seems the most unlikely to happen, especially in the payments sector that is the core topic of this paper.
Conclusion

The purpose of this work has been to give a complete overview of the European payments sector, from different viewpoints: industry players, historical and expected growth, M&A activity, shape of the equity capital market and main risks and threats related to it. Through the observation of this sector’s key trends and tendencies, we then tried to predict what will most likely be the future developments for this industry and its participants. In doing so, the comparison of the European payments ecosystem with a more mature and better developed environment such as the US one has been of great help.

We decided to focus on the payments sector as we believe it is a very dynamic business environment that shows some very interesting features that are not immediately clear if one looks at this industry superficially. Therefore, we tried to make an in-depth analysis of this sector to give support to the arguments we derived. The main results of this analysis can be divided in two groups, i.e. the key recent trends characterizing the European payments sector and the expected next steps of development for it.

In terms of trends, we identified the following ones:

1. The European payments sector experienced, in the recent years, a very strong growth, both in terms of increase of traditional key performance indicators and of development of new, innovative products. This was achieved also on the back of the rise of the broader FinTech sector, that boomed in the last years.

2. Governments are more and more willing to adopt initiatives to spur electronic payments and reduce the usage of cash, as a tool to fight black economy. Very recently, this translated in a number of regulatory initiatives undertaken at European Union level to create a single, integrated market for payments in Europe and make it faster and easier for a European citizen to perform payments in other countries, by abolishing national boundaries and differences in regulation among states.

3. The payments sector in Europe is currently experiencing a period of very intense M&A activity as never in the past. These deals are usually driven by the same rationales, and we identified three core drivers shared by most of these acquisitions: (i) banks’ outsourcing large parts of their payments businesses to specialized players; (ii) large payments companies willing to gain scale and international exposure through the acquisition of smaller players and (iii) private equity investors massively targeting the industry.
4. Large PSPs are more and more willing to seek public funding and are becoming listed on stock exchanges. A wave of IPOs of payment companies started very recently in Europe, even though it is now at a very early stage.

These are the core trends ongoing in the European payments sector. However, we must recall that, notwithstanding the extraordinary growth this industry experienced recently, it still lags consistently behind a more mature market as the USA, in terms of payments sector development. Therefore, even through the observation of the current shape of that industry, we derived the following conclusions, that represent our expectation for the next stages of development of the European payments industry.

1. Massive sector consolidation, as the payments one is a scalable business and dimensions are a crucial differentiating factor for companies competing in the industry. Large PSPs are expected to keep on buying smaller competitors, also out of their national boundaries. Private equity-backed payment companies especially are expected to act as industry consolidators in many European countries.

2. The wave of IPOs is expected to continue, with some IPOs already in the pipeline for the very next future and some of them likely to happen shortly.

3. Mergers of large payment companies, potentially leaders in different segments of the value chain, to create pan-European champions, on the back of the examples shown by several US players.

As we can see by looking at the expected next steps above, the expectation for the development of the European payments sector in the next years can be actually summarized by one single word: consolidation. Indeed, this is the direction towards which most of the deals and strategies undertaken by European PSPs point, as highlighted also by the comments of key market participants. Moreover, the already mentioned regulatory framework, that created the basis for an integrated, pan-European competitive environment for payments companies, is expected to further pave the way in this sense. Moreover, we must say that, while the first two features identified above are already happening in Europe and very likely to continue in the early future, the third one seems still a bit far. The Worldline / Equens deal described in great detail in this paper represents so far the only, true example of a transaction of this kind. Another reference of such is not easily seen as likely to happen in the imminent future. However, as the deals that took place in the USA in 2016 that we described in chapter two show, we believe some transaction of such will take place in Europe as well within the next 3-5 years.
We can now make a concluding remark on all this work, and state whether we believe that the European payments sector, so deeply analyzed, represents a good investment or not. In doing so, we can use the usual tool used in evaluating an investment, that is the risk-return matrix. Indeed, all investments are characterized by a strong correlation between these two parameters: highly risky investments tend to generate very high returns, if successful. We saw in chapter two and three how investments in European payment companies proved often to be highly remunerative, for private equity investors especially. Then, we also considered in chapter four the risks that can be associated with investments of this kind, and stated how these are expected to increase in the future as the business becomes more and more tech-related. Based on these features, our opinion is that the risk-return balance of an investment in payment companies is, nowadays, favourable. The returns secured by recent players who invested in this business more than compensate for the risks that we highlighted, in our opinion. However, we also believe that this will not last forever. As we said in Chapter Two, the internal rates of return secured by some private equity investments in the European payments sector were around 60%. Obviously, this level of returns is not long-term sustainable. Our expectation is that valuation of payment companies will rationalize in the upcoming futures, and as a consequence returns extracted by these investments will stabilize, in our opinion, on an average range of 20-30%. Indeed, in every market investments tend to happen in waves, and it is empirically proven that good deals tend to take place in the early stages of the wave. In the European payments sector, we believe that we still are at this early stage, as no revolutionary and industry changing transaction was seen up to this point. Anyway, as we anticipate that in the next years valuations of payment companies will be rationalized as the sector consolidates and matures, it will become more difficult for investors to extract high value from companies of this kind. Another consequence of this is that we might see in the future more “bad” investments, driven by market euphoria and believes that the wave could last forever that may fail to generate good returns. However, as the sector consolidates, we expect the overall risk of the sector to decline hand to hand with returns, even though maybe at a slower pace. Therefore, we believe that the risk-return profile of an investment in the European payments sector will not see dramatic changes in the next 10-15 years, as these two aspects are expected to move in line with each other. Hence, our concluding remark is that the European payment sector represents a good investment nowadays, but things might possibly change in the upcoming years.

This concludes our work. We tried to make the reasoning as deep and complete as possible, and to describe our thesis from all the possible viewpoints. Obliviously, some details may be missed,
as the topic is so broad and the analyzed business is so dynamic that is fairly impossible to capture every single aspect of it. However, for the purposes of our work, we believe that the practical references we brought and the trends considered are sufficient to get an understanding of the payments sector, and to get an idea of why this business is so attractive for different kinds of investors recently.
Bibliography

Literature:

- Malaguti & Guerrieri (2014), “Multilateral Interchange Fees: Competition and Regulation in light of Recent Legislative Developments”


General references

- Citi research, Sinatra Was Right: The Best is Yet to Come. Rolling Out Coverage of EMEA FinTech, 13 July 2016

- PwC global FinTech report, Blurred lines: How FinTech is shaping Financial Services, March 2016


- JP Morgan research, Blockchain: a revolutionary technology too important to ignore, 23 May 2016

- EPIF Business Models, Merchant acquiring

- Occasional discussion paper by the Competition Directorate – General of the European Commission, Competition policy brief “The Interchange Fees Regulation”, June 2015


- PwC research, PSD2 in a nutshell: An in-depth look at the new Directive, 2016

- First Annapolis Navigator, Payment Acceptance M&A in Europe is Booming, March 2016

Legislative acts


Summary

This work is entirely focused on one particular business in a specific geographical area: the European payments sector. It begins with a short introduction on payments in general, that already gives us an introductory idea of why the payments industry has many attractive characteristics from an investor’s perspective. In particular, before going more in depth with the discussion on this particular business, it states three core pillars of payments that justify such attractiveness:

4. Although payment methods changed over time, there has always been a need for payments. Payments never became obsolete.

5. When new payment methods arise, they tend to be additive. That is, new methods tend to increase the total number of payment transactions in the system rather than replace older payment methods. E-commerce and m-commerce solutions give great evidence of this, as they gave consumers a faster and easier way of making purchases and made them more willing and likely to transact.

6. Although some payment methods may experience a secular decline in usage, they rarely, if ever, go extinct. The popularity of cash in today digital society supports this point, as does the continued use of checks. Even barter cannot be considered obsolete as we all still use it in our everyday life when we exchange favours with our friends or relatives.

After that, the paper puts payments in the context of the broader “FinTech” sector. Fintech is defined as any technology that enhances the delivery of financial services or creates new markets for financial products. The paper states how this sector is definitely booming in the last 2-3 years and how payments represent a very big part of FinTech success. This feature is considered of great importance for two respects: first, it tells how the payment sector globally is growing recently on the back of the growth of the broader FinTech sector; then, it demonstrates how the payment business is expected to be, in the future, more and more tech-
related and technology is expected to be a crucial success and differentiating factor for payment companies.

After this short introduction, the paper moves to deliver its main purpose: to give a complete overview of the European payments sector and describe the key trends that characterized it in the latest years. From those, it tries then to derive what are the most likely developments and in which direction this business is expected to move in the upcoming years.

In order to do so, the paper first contextualizes this industry and gives a snapshot of the current stage of development of the European payments market. In doing so, it first describes how the payments value chain works and who are the key players in this industry, also by providing examples of some of the key companies competing in the European payments environment for each part of the value chain. Then, it gives an overview of the main industry key performance indicators and observes both how they evolved over time and their expected development in the next few years. It also compares, in terms of these key performance indicators, the European payments market with another, more mature ecosystem such as the USA. Finally, there is a roadmap towards the most important regulatory initiatives undertaken at European level within the payments sector, as they are expected to play a very important role in the development of the overall sector in the future.

Key market participants in the payments business in general are the players competing in the card payment industry, that involves all the aspects related to activity of managing payment with cards (credit, debit, pre-paid, etc.). These players are: (i) card issuers, typically the banks that provide cardholders with a credit, debit or pre-paid card and manage its balance account; (ii) merchant acquirers, the “distribution and sales” arm of the payments industry that hold a direct relationship with merchants and enable them to accept payments via cards both in-store and on-line; (iii) card networks, who set the rules all industry participants have to stand to and are the true backbone of the electronic payments system, connecting and switching transactions between merchant acquirers and issuers, enabling electronic payment authorization, clearing and settlement; (iv) issuing and acquiring processors, that provide the
infrastructure and services that facilitate and enable electronic payments, and are the key link between issuers / acquirers and the card networks. Apart from those, that are the most active players in the payments competitive environment, the paper also mentions some other market participants that are worth mentioning even though they play a less important role, i.e. terminal providers (designers and manufacturers of the devices and systems serving as the key infrastructure of the payments industry, mostly POS and ATMs) automated clearing houses (electronic networks that facilitate large financial transaction between financial institutions), convenience payments operators (that allow for payments of bills and utilities, top-ups of mobile phones, pre-paid cards, pay-TV cards and other payments of this kind) and on-line payment solutions providers (e-commerce and m-commerce platforms operators).

The paper then investigates the historical performance and expected future behaviour of the sector’s key performance indicators. In doing so, the European payments sector is analyzed hand to hand with the same business in another key geographical area, the USA, for comparison purposes. The key performance indicators considered are the following: financial cards in circulation, card transaction number and value, number of ATM, number of POS terminals and e-commerce volumes. These values are considered both in a nominal form at European level and per-capita for the largest 5 European countries as per payments business development (i.e. United Kingdom, Germany, France, Italy, Spain), in order to highlight some features that emerge at country rather than continental level. The main results derived from this analysis are the following:

1. Even though most of the sector’s key performance indicators faced an important growth over the last 10-15 years, Europe remains a largely non homogenous payment market with most of its countries still being underpenetrated both in terms of cards usage and on card transactions per capita.

2. Most of European countries lag significantly behind a more mature market such as the USA in terms of payments industry development. Card payment penetration rate in Europe was 36% in 2016, consistently lower than USA 44% level.
3. In terms of expected growth, however, forecasts for Europe are in-line with the ones for the USA, with some of the key European countries expected to outperform the USA in terms of card transactions and e-commerce volumes growth.

Then, with the regard to the payments business regulatory framework, the paper highlights how over the past few years, promoting electronic payments has been a key layer for Government action/tax recovery and the best tool to fight black economy, on the back of the empirical evidence that the level of development of electronic payments in a country shows a strong, negative correlation with the size of its black economy. In this context, the paper describes the three recent, most important regulatory initiatives undertaken at European level in the payments industry, that are meant to promote card usage and are expected to benefit the players competing in the industry and their clients, by creating a single and more integrated competitive environment at European level rather than several small markets at national level. The first of these initiatives analyzed is the EU 2015/751 “Multilateral Interchange Fees” Regulation, published on the 29th of April 2015 that, by imposing uniform rules especially in terms of fees to which market players must comply with is expected to create a level playing field that will allow more competition and spur innovation in the European payments industry. The second initiative considered is the so called “Single Euro Payments Area” (SEPA), an initiative of the European Banking Industry initiated in 2014 that aims at creating a pan-European, integrated market for electronic retail payments by abolishing national boundaries for payments in Euro, in order to consider the whole of the EU (plus some countries outside) as a single area with uniform rules and standards. The third and last legislative act described is the “Revised Payment Services Directive” (PSD2) scheduled to enter in force in January 2018 that is expected to enhance consumer protection, promote innovation and improve the security of payment services. All these regulatory initiatives have an important purpose in common, that is creating a more and more uniform and harmonized competitive environment at European level to make it easier for European payment companies to operate cross-border.
After this introduction that gives important guidelines on the sector analyzed, the paper moves on to more practical aspects and analyzes the European payments sector first from an M&A and then from an ECM point of view. Again, the European environment is often compared to the US one, to better understand sector dynamics.

With regard to M&A activity, the paper starts from two key features observed in the European payments market recently. First, it states that it has became increasingly evident that the payments business requires resources and commitment to make regular significant investments in IT and technological capabilities aimed at efficiency, scale and innovation. Then, it also says that it is more and more clear that ownership structures where banks (the players that historically dominated this business) act at the same time as owners and customers of the payments business is suboptimal. From these two features, it derives that a sector consolidation process in undergoing and it is expected to bring efficiency in the payments sector. The paper aims to analyze this consolidation trend started in the past few years, along with other tendencies observed within the European payments sector recently. It does so by looking at the most relevant M&A deals in the European payments space, analyzing both their drivers and the strategic rationale for the players involved. It also observes which parts of the payments value chain are the most active in terms of M&A and tries to depict common features for each of the key value chain segment. Finally, it tries to predict what the next steps for the European payments sector will be, by comparing it once again with the US market, that is more developed and mature as it already experienced a massive consolidation process. The paper considers a panel of 36 M&A transactions that took place in the European payments sector starting in 2008. The panel considers all of the key aspects of these kind of deals, such as kind of buyers and targets, stake acquired, enterprise value and implied EV / EBITDA multiple, for which the panel shows an interestingly high average of 11.8x. The paper specifically analyzes some groups of deals: (i) recent sale of payments processing assets by some of the leading European banks, especially in Italy; (ii) European banks’ outsourcing initiatives of merchant acquiring activities; (iii) transactions that involve private equity investors, that demonstrated to be highly attracted by
this industry. From the analysis of these aspects, the paper identifies the following as the key features of the European payment sector that emerge from the data of M&A deals:

5. Even though they have historically been the most important players in this sector and covered the whole payments value chain, banks are increasingly starting to exit this business by outsourcing some of their front-end and back-end payment activities to specialized players, through asset sales, set up of joint ventures or strategic partnerships. They are doing so as payments activities are considered non-core for banks, that hence prefer to outsource them to redeploy capital on their core businesses. The observed trend is for banks to retain the issuing business in house, while being open to outsource processing and merchant acquiring activities. Indeed, card issuing involves synergies to be exploited with other banking activities such as consumer deposits collection, as the bank can provide cardholders with a single bank account for all its bank-related activities and link it to the credit and debit cards issued for them.

6. Specialized payment services providers, especially mono-line merchant acquirers and processors, are pursuing economies of scale and geographical expansion through acquisitions. Indeed, both businesses have high fixed costs, and scale is critical to long-term competitiveness. The growing ambitions of these players are a good match with banks’ desire to divest non-core payment businesses to raise capital, and therefore they usually find ideal targets in banks subsidiaries or business divisions up for sale.

7. Diversified payment services providers are leveraging on M&As to broaden their product capabilities and to improve their technological expertise, which is a crucial competitive factor in the sector in the medium-long term. Indeed, many payments players integrated along the payments value chain have been aggressively adding product capabilities via acquisitions, particularly in the areas of e-commerce, mobile, and gateway services.

8. Private equity buyers started to massively target the industry and are exploiting strong value creation opportunities. The appetites of financial buyers vary, but typically they are looking for strong franchises with stable core businesses that also offer strong growth or
operational improvement opportunities. Businesses such as card payment processing, merchant acquiring or e-payments, characterized by recurring revenues and benefiting from the extraordinary growth of the payments sector as a whole, hence make payments companies the perfect targets for this kind of buyers.

As the paper states, these four features all point in the direction that the European payments sector is undergoing a period of massive consolidation. In order to better emphasize this aspect, that is crucial in the competitive dynamics of this sector recently, the paper focuses a lot on the description of a specific M&A deal, that represents the biggest step towards consolidation so far in the European payments landscape: the transaction between the French company Worldline and the Dutch company Equens, announced in November 2015 and completed in September 2016.

From an ECM viewpoint, instead, the paper tries to the analyze the current shape of the European ECM environment, by focusing on listed payments companies. It does so by first looking at the three key IPOs that took place in Europe in the last three years, (i.e. Worldline in 2014, Worldpay in 2015 and Nets in 2016). With regards to these transactions, it describes the main highlights of each offering, along with the rationale behind it.

The paper first gives an overview of the key recent IPOs that took place recently in the European payments sector. These deals are described as to provide interesting features: they show how the seeking of public fund is increasingly becoming a priority for large payment services providers, as Europe experienced with regard to payment companies in the last 3 years the same number of IPOs as in the 30 previous years. Moreover, according to the key market participants such as payment companies’ CEOs, chairmen and shareholders, the rationales behind them give another clear evidence of how payment companies want to take action towards market efficiency and, especially, consolidation. The paper says how a wave of payment companies IPOs is currently ongoing in Europe.

Then, the paper takes once again the reference given by the mentioned Worldline / Equens transaction. It investigates through an event-study methodology the movements of
Worldline’s share price around the deal announcement date to analyze how the market reacts to payment companies initiatives and how does it look at this undergoing consolidation process. The fact that Worldline share price posted a +10% increase in a 30-days time frame around the deal announcement date, consistently outperforming both its peers and its reference index highlights how the markets seem to welcome very well such initiatives.

In relation to both these aspects (M&A and ECM), as we said the paper makes an interesting comparison among the European and the US environment. What emerges in both cases, is that the USA are at a more advance stage of development with regard to the payment business, and the sector in that geographical area is way more mature and consolidated.

Finally, the paper makes a concluding remark about the key risks and threats that characterize the European payments environment. In doing so, the paper mainly distinguishes among two different kinds of risks: (i) “micro risks”, i.e. risks that arise at single company’s level, and that depend on the firm’s size, business model, technological development and flexibility, especially in relation to the capacity of adapting and reacting to changes; and (ii) “macro risks”, i.e. the risks that the overall competitive environment for traditional companies may be reshaped, in terms of new minimum business standards, different regulation and changes in the sector’s overall riskiness.

As per the former source of risk, the paper identifies the following threats, the main ones according to market participants: (i) pressure on margins, (ii) loss of market share, (iii) threats related to privacy information security and (iv) increase of customer churn. More in general, the main impact for traditional financial service providers will be the surge of new business models, in most of the cases highly tech-related, that will create challenges for market participants.

About macro risks, these are mostly related with regulatory uncertainty and the risk that the market euphoria, strong valuation and exceptional returns that are characterizing the European payments industry actually hide a financial bubble. However, the paper states that even though some payments deals that took place in these years were surely over valued and
driven by general market euphoria, the fact that all this represents a bubble that will burst and trigger a potential crises for the financial services sector seems quite unlikely. A threat that is instead seen as more realistic by the paper is the fact that the “out of Euro” ideologies at the heart of the agendas of several European political parties (peaked in the outcome of the Brexit referendum) may damage the development of a single, integrated and pan-European payments market that is a key competitive success factor for many large European payment companies. However, the paper clearly states how, notwithstanding these threats, investing in payment companies still seems a good idea nowadays from a risk-return perspective. Moreover, there is another threat that the paper mentions, that is the risk that innovation and new technologies, that are generally good and very well welcomed by the overall financial market, may be used for different purposes than the seeking of efficiency and the fight against black economy. Indeed, some of them may trigger speculative, anti-competitive and in some cases illegal behaviours that damage the industry rather than benefiting it. With this respect, the paper mentions the example given by Bitcoins, the crypto currency that boosted the online black market consistently over the last years.

From the analysis of all these contents, the paper then derives the conclusions that represent its main purpose: identify the most important trends that recently characterized the European payment sector and try to derive some expected next steps for the further development of this business in the upcoming future.

In terms of trends, the paper identifies the following:

5. The European payments sector experienced, in the recent years, a very strong growth, both in terms of increase of traditional key performance indicators and of development of new, innovative products. This was achieved also on the back of the rise of the broader FinTech sector, that boomed in the last years.

6. Governments are more and more willing to adopt initiatives to spur electronic payments and reduce the usage of cash, as a tool to fight black economy. Very recently, this translated in a number of regulatory initiatives undertaken at European Union level to
create a single, integrated market for payments in Europe and make it faster and easier for a European citizen to perform payments in other countries, by abolishing national boundaries and differences in regulation among states.

7. The payments sector in Europe is currently experiencing a period of very intense M&A activity as never in the past. These deals are usually driven by the same rationales, and we identified three core drivers shared by most of these acquisitions: (i) banks’ outsourcing large parts of their payments businesses to specialized players; (ii) large payments companies willing to gain scale and international exposure through the acquisition of smaller players and (iii) private equity investors massively targeting the industry.

8. Large PSPs are more and more willing to seek public funding and are becoming listed on stock exchanges. A wave of IPOs of payment companies started very recently in Europe, even though it is now at a very early stage.

However, the paper clearly recalls how, notwithstanding the extraordinary growth this industry experienced recently, it still lags consistently behind a more mature market as the USA, in terms of payments sector development. Therefore, even through the observation of the current shape of that industry, that gives a good proxy for how the European sector could be in the next few years, the paper derived the following conclusions, that represent expectation for the next stages of development of the European payments industry.

4. Massive sector consolidation, as the payments one is a scalable business and dimensions are a crucial differentiating factor for companies competing in the industry. Large PSPs are expected to keep on buying smaller competitors, also out of their national boundaries. Private equity-backed payment companies especially are expected to act as industry consolidators in many European countries.

5. The wave of IPOs is expected to continue, with some IPOs already in the pipeline for the very next future and some of them likely to happen shortly.
6. Mergers of large payment companies, potentially leaders in different segments of the value chain, to create pan-European champions.

The expectation for the development of the European payments sector in the next years are perfectly summarized by one single word: consolidation. The paper states that this is the direction towards most of the deals and strategies undertaken by European payment service providers point, as highlighted also by the comments of key market participants. Moreover, the already mentioned regulatory framework, that created the basis for an integrated, pan-European competitive environment for payments companies, is expected to further pave the way in this sense.

The paper then concludes with a remark on whether it is advisable or not to invest in the European payments sector. The remark is that the European payment sector represents a good investment nowadays, but things might possibly change in the upcoming years, given the risks and threats there were previously identified.