Future of Credit

A European perspective

Second Edition, Q4 2023

Contents

Methodology

Future of Credit provides our view on trends in Consumer Credit & Pay Later industry in Europe. This report has been completed in partnership with LSE & Mastercard Economics Institute

As an important input to this report we interviewed 17 senior market experts across banks and fintech's across Europe:

Leading international retail bank France-based

Leading digital bank (Netherlands branch)

Leading digital bank (Poland branch)

European Paytech issuing & acquiring solutions provider Italy-based

Leading international retail bank Spain-based

Leading retail bank Scandinavian-region based

We thank all our interviewees for their generous and candid contributions and special thanks who consented to display their brand logo.

Executive summary

In this report we looked at historic patterns, market-shifting innovation and exciting product propositions that we expect to prevail and scale.

Covid-19 pandemic and subsequent government interventions led to macro-economic shifts that we have not seen since the financial crisis in 2008. In response to high inflation, Central Banks across Europe embarked on an aggressive rate-tightening program in late 2021. However, low unemployment rates combined with unexpected economic growth reinforces the need for consumer credit in-spite of its higher cost.

Consumer credit markets are not uniform across Europe and have a different product mix. Personal loans remain the key consumer credit product in most of the markets, followed by credit cards. Europe is a predominantly debit card market, followed by credit cards. Credit card use remains unchanged, being primarily used for large-ticket purchases, travel and online shopping.

Buy Now Pay Later (BNPL) players have been growing and addressing these needs, especially in the online space. They have been hit by high cost of capital, low profitability, and regulation catch-up. This gives time for incumbents to sharpen their pencils and review their pay-later propositions.

We have summarised our findings into seven main market trends that are impacting consumer credit:

1. **E-commerce Remaining a Key Driver**: E-commerce has been the wave BNPL players have been riding. While it may have not be as strong as it was during Covid-19, this source of growth is not going away.
2. **The Rise of Contactless and Digital Wallets**: Consumers continue to change and adopt the most convenient payment behaviour. Successful pay later options need to respect that.
3. **Better and Faster Ways of Providing Credit**: There are still many hurdles in accessing credit. Open Banking and new technical solutions are reducing or taking away some of them.
4. **Unlocking Pay Later Flexibility**: Consumers need choice. Between Debit and Credit there are many colours and flavours of Pay Later Flexibility that opened new space for innovation.
5. **Providing Credit in High Interest Environment**: Consumer credit providers have seen their profitability impacted by the high interest rates. Consumers are more conscious about cost of money and late payment costs.
6. **From Rewarding to Sustainability**: Consumers have always loved cashback and miles. Is this still the future, as rising ESG awareness calls for sustainable consumption?
7. **Navigating Credit Consumer Regulations:** Central banks and regulators are on watch to protect consumers. There is uncertainty on future consumer credit regulation and it is not likely to get any less stringent.

So, who wins the Future of Credit?

In the last chapter of this report, we tried to digest the true essence of what is advisable for any existing and new player in the Pay-Later space, and what is key to any successful consumer credit value proposition:

- **Pay Later with greater flexibility**: Providing choice to customers and how they prefer to pay later, while staying in control of their finances within their banking app gives them full transparency.
- **Safer and faster access to credit**: Simplify customer onboarding and make credit decisioning fast and smarter, truly unlocking the full potential of new technologies such as Open Banking.
- **ESG as a driver of innovation and customer value:** Integrate your ESG DNA into consumer products, empower customers to act on causes close to their hearts and equip customers to improve their financial health.

A note from the authors

Welcome to our Second Edition of the Future of Credit!

Following the issue of our first report in 2019, many things have changed. Advancement in technology has brought about new innovations, everything is becoming digital, and with that consumer awareness and preferences are also changing. The Covid-19 pandemic accelerated some of these changes. We continue to digest the macro-economic impact of this which has influenced the use of Credit. To navigate this rapidly changing situation, it is important to have a comprehensive view of the latest market trends and drivers of changes to come. With that intent, we present the Second Edition of our paper, the "Future of Credit – A European perspective".

This report attempts to stimulate a strategic discussion about the future of credit and paying later in general; what it means for different stakeholders, and where the potential opportunities and threats lie. Considering the varied nature of consumer credit markets across Europe, we are not trying to find one correct answer. Instead, we hope to provide insights and inspiration to market participants, that will need to apply them to their market context and decide on their direction of travel.

Over the past five months we have engaged with industry experts and market participants from ten markets across Europe via more than fifteen interviews supported by extensive desk-based research to refine our hypotheses about the future of credit. Mastercard Economics Institute and the student team from the London School of Economics have supported us on this journey. Although each market has its own distinct features, we have found unifying views and opinions that resonate across all geographies. We have common ground and strategic suggestions that are applicable across Europe.

It is up to every reader to digest how the findings of our report apply to your product, company and market context and how you can leverage this to ensure your Pay-Later solution stands the test of time.

We look forward to continuing this discussion with many of you.

Kind Regards,

The Authors

CHAPTER 1

European credit market

Navigating the turbulent economic situation

In this chapter, we explore the impacts on the consumer credit market stemming from the current economic situation, triggered by the Covid-19 pandemic and the ensuing post-Covid-19 economic situation.

This intricate journey delves into the multifaceted consequences such as the escalation of interest rates, the specter of inflation and the impacts on consumer credit demand.

Trying to unpack all the fundamental drivers impacting consumers and their pay later behaviour, we have selected six European markets for our deep dive: France, Germany, Italy, Poland, Sweden and the UK.

The consumer credit market in Europe is being shaped by five fundamental drivers:

Consumer credit is countercyclical to the unemployment rate. Unemployment levels remain low, reaching the lowest level ever in June 2023 with 5.9%. The future levels of unemployment will determine the sustainability of the recovery in demand for unsecured credit.

Inflation is gradually easing mainly driven by food and energy but remains above the ECB target of 2% and has critical impact on consumer spending decisions.

Credit is becoming more expensive with the increase in interest rates by Central Banks across the region, which makes consumers pay higher interest to cover their pay-later needs.

Consumers have not reduced demand for spending despite the rising costs mainly due to the high employment rate, inflationary salary adjustments across the region and pent-up demand post Covid-19 consumption growth.

Credit cards continue to be used mainly for ecommerce, travel and large purchases. Revolving credit has been decreasing in the past years, but overall credit card spend keeps growing in Europe.

Central Banks policy rates and impacts in Europe

In response to high inflation, the European Central Bank (ECB) and other independent Central Banks across Europe embarked on an aggressive rate tightening program in late 2021. Countries like Poland and the UK registered steeper rate hikes, reflecting their higher and stickier inflation. The interest rate set by a Central Bank curbs demand by affecting the cost of borrowing, with higher rates making it more expensive to take out credit and relatively more attractive to save money. However, the impact of an interest rate hike depends on the composition of credit products within the economy, such as the structure of mortgages or usage of unsecured consumer credit. The housing market is an important transmission mechanism through which monetary policy affects consumer demand. The UK, for example, has a relatively low proportion of mortgage-holding homeowners. A small proportion of these mortgages are variable-rate, meaning that interest rate adjustments by the Central Bank instantly feed through to a small group of consumers in the UK. As such, the interest rate has a muted effect, through the housing market channel.

"High and rising interest rates could present a headwind to credit demand, but so far the tailwind from low unemployment has proved to be a stronger force in driving credit growth."

Mastercard Economics Institute

Policy rates in Europe from 2015 to 2023

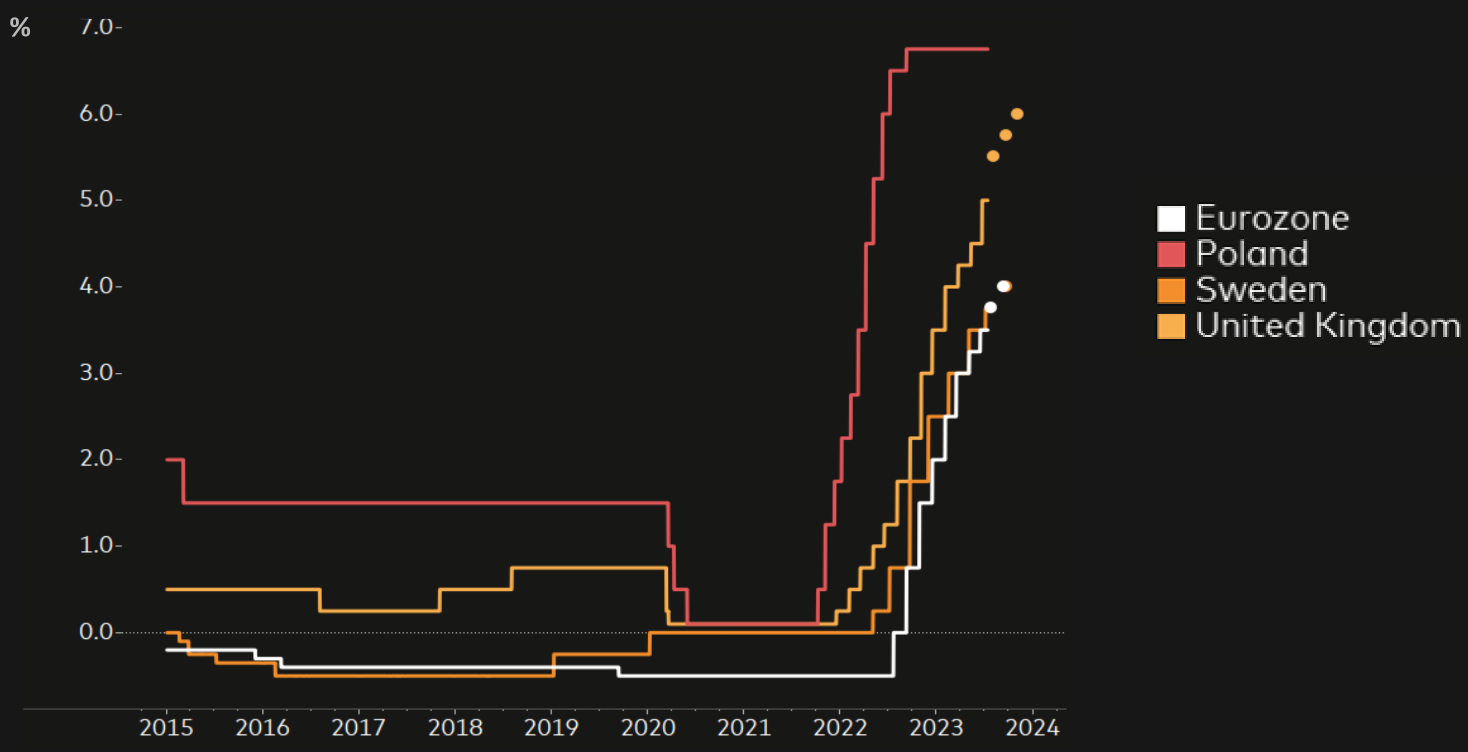


Figure 1 – Policy rates from 2015 to 2023 in Europe. Source Mastercard Economics Institute

Sources: Mastercard Economics Institute, Policy rates in Europe from 2015 to 2023

Consumer credit and unemployment rate growth

The effect of rising inflation and the subsequent interest rate hikes have cut into discretionary incomes across the EU and UK. However, strong household balance sheets (driven by government income support and rising house prices) during the Covid-19 pandemic, alongside low unemployment created a springboard for spending during the recovery. Households in countries where unsecured credit is widespread have continued the trend of extending credit in periods of low unemployment, despite rising interest rates. Consumer credit is usually countercyclical to the unemployment rate, suggesting that households are content with financing credit card bills on a monthly basis if they are employed. The future levels of unemployment will determine the sustainability of the recovery in demand for unsecured credit.

According to the European Commission, unemployment has reached the lowest level ever in June 2023, with 5.9% of unemployment in the union.

Low unemployment rates combined with an unexpected economic growth from spending is an optimistic sign of economic recovery which reinforces the position of consumer credit for the rest of the year.

Consumer Credit Demand relationship with Unemployment, Europe

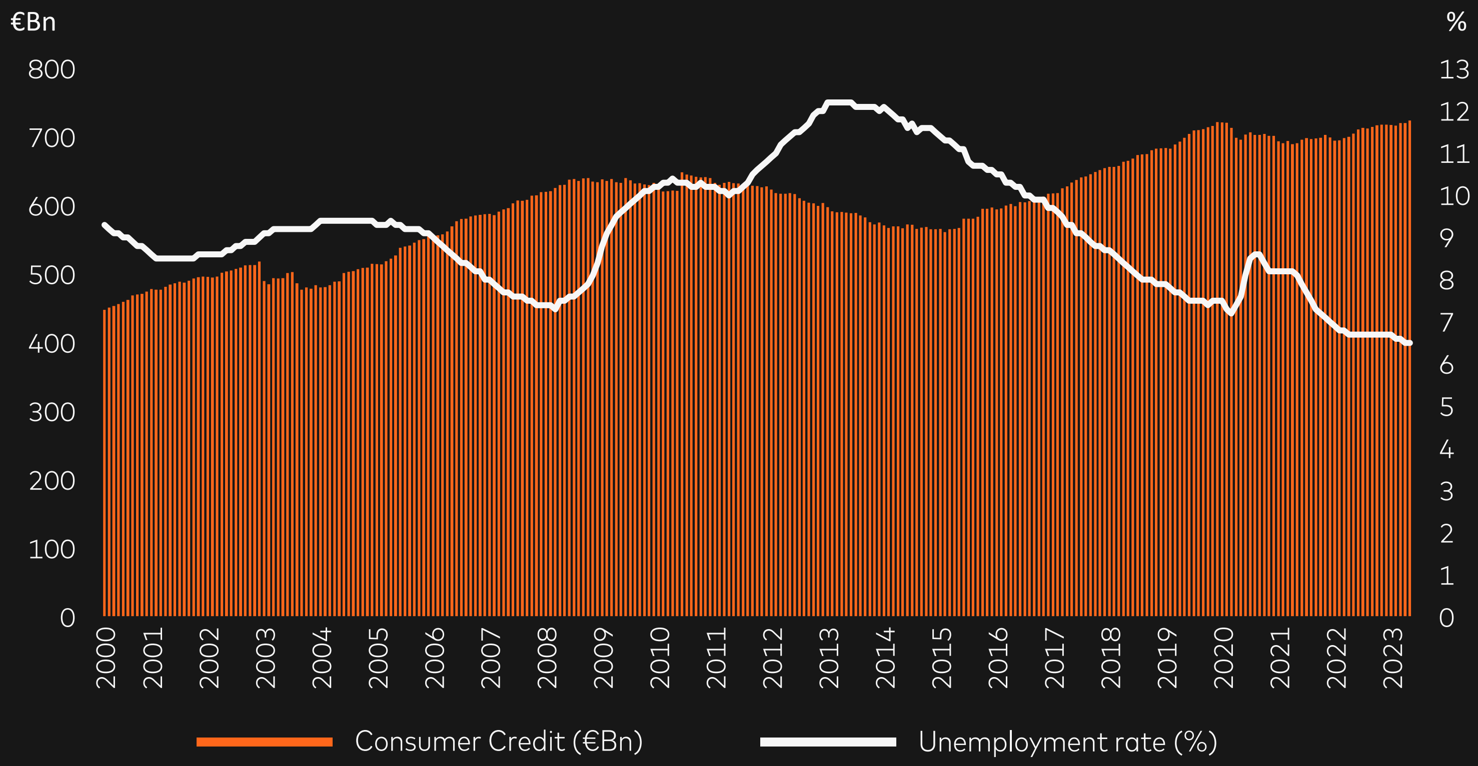


Figure 2 – Consumer Credit Demand and Unemployment rate from 2000 to 2023 in Europe. Source Mastercard Economics Institute.

> "We may review our interest free rates due to the current economic situation and impact in credit rates and consumer credit."
>
> Product Manager, Fintech

Sources: Mastercard Economics Institute, Consumer credit demand and Unemployment rates in Europe from 2000 to 2023

The European credit market

Consumer credit markets are not uniform across Europe. The UK, for example, is known for its large revolving balances on credit cards, while Sweden and Poland are card-averse markets. Among the consumer credit products, personal loans tend to be the highest value consumer credit product, based on loans volume in 2022. Each country below presents a different product mix due to the different characteristics that each market has. Personal loans, due to high volume remains the key product in most of the markets and overdraft remains a minor product across the region. Other loans, usually from non-bank institutions represent a small proportion of the product mix and have suffered a potential decrease due to the current economic situation.

It is expected that Point of sale (POS) financing will grow during the upcoming years, at least in markets where Buy Now Pay Later (BNPL) gained significance, which can also have a direct impact in credit card volumes due to its competition.

Overdrafts, from non-bank loans are not expected to change significantly and will continue as a tier 2 type product. This was confirmed during our interviews with credit experts. Personal loans , due to high volume, will continue to become the first or second most relevant consumer credit product across the region.

Product Mix by market (2022)

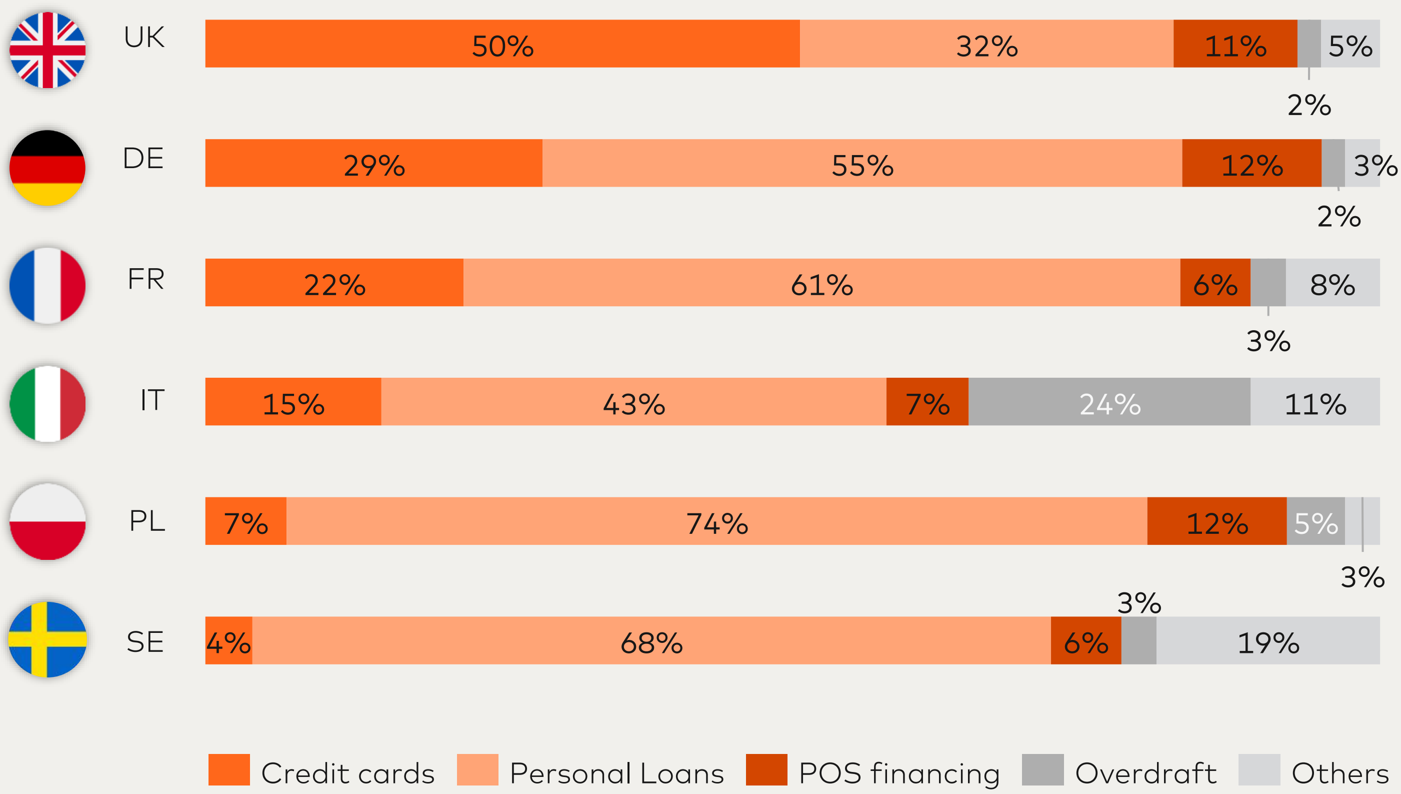


Figure 3 – Consumer Credit Product mix. FY 2022. Source Central Banks, Mastercard research, Payment reports.

Sources: Central Banks, Mastercard research, Company reports, Year 2022

Payment cards battle – Debit vs Credit

Total card volumes have been growing around 6% per year from 2019 up to 2022, and in the upcoming years is expected to keep positive outlook, mainly to cover ongoing consumer needs and cash to card conversion. Debit cards will also grow at a slightly faster pace than credit cards, taking 77% market share in 2025.

Such growth may vary from country to country, with Poland, for example, having a growth in debit cards of 18% from 2019 to 2025, while in Sweden it is below 5%. Europe is a predominantly debit card market, and it is expected that debit will continue to be dominant in the region.

The growth in debit card usage over credit cards can be attributed to a combination of factors, including economic circumstances, financial responsibility, preferences for budgeting, and the availability of rewards and digital payment options.

Among the Youth segment, our research with LSE concluded that 68% of respondents have a credit card, with 66% of credit card users, using it daily or regularly. The main reasons for usage are for large purchases, daily expenses and travelling. Nevertheless, an important trend that we identified in this study is that the UK is the only market where Debit cards offered by Neobanks (49%) had a greater share than Credit (16%) and Debit cards (39%) from traditional banks.

In recent years, consumers have become more digitally aware and new solutions have appeared across the region. New competition has arisen in alternative credit offerings, such as account-based solutions and Buy Now Pay Later checkout finance.

These new competitors are creating momentum especially in credit card volumes specifically in markets such as Sweden, where players such as Klarna started. Impact in other markets has not been sizeable yet, which represents both a threat as well as an opportunity.

"We still need a consumer cultural change to completely break down the barriers and concerns around credit products."

Head of Card Payments

Cards Growth in Top20 Markets in Europe

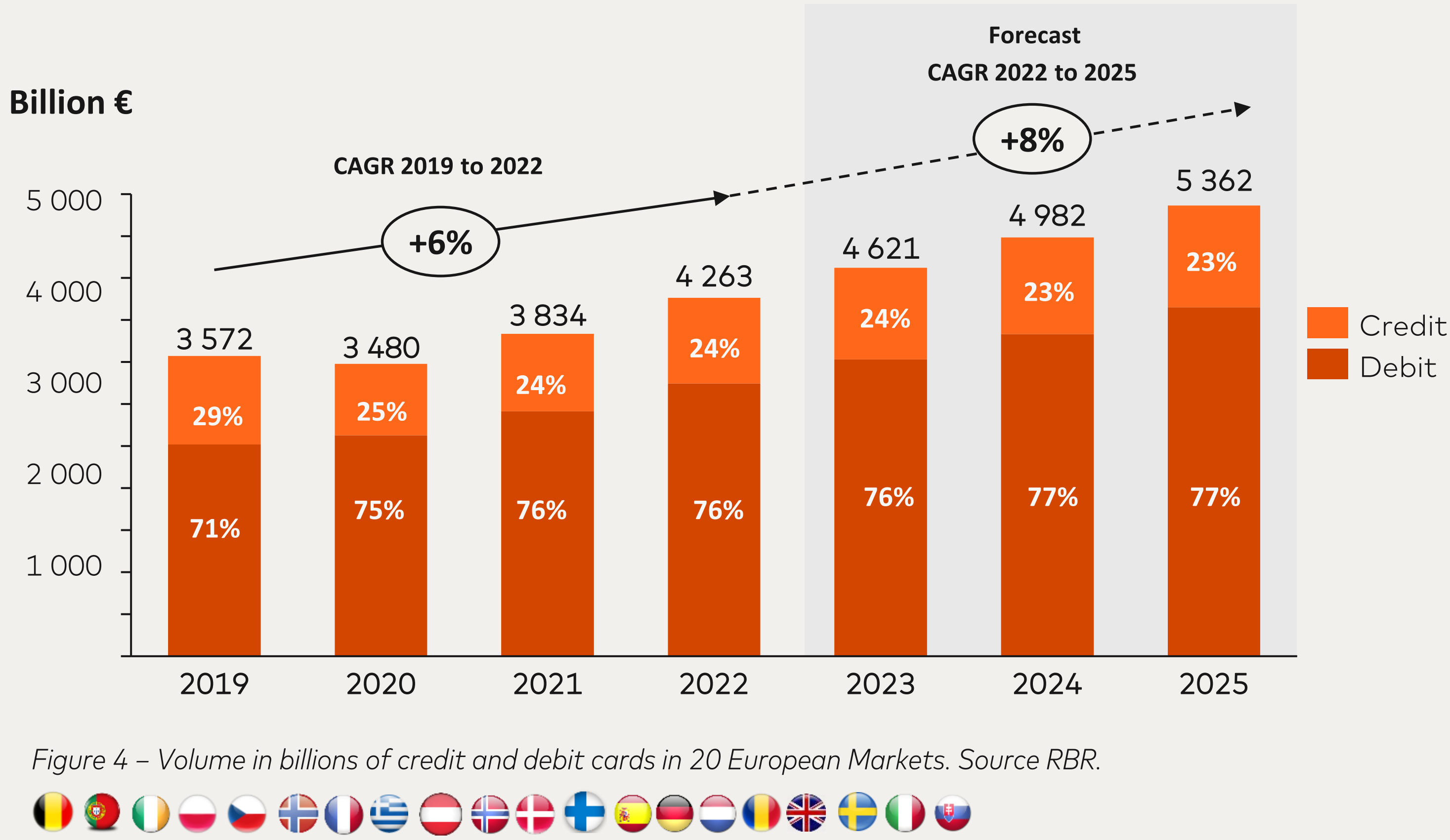


Figure 4 – Volume in billions of credit and debit cards in 20 European Markets. Source RBR.

Sources: RBR, Mastercard research

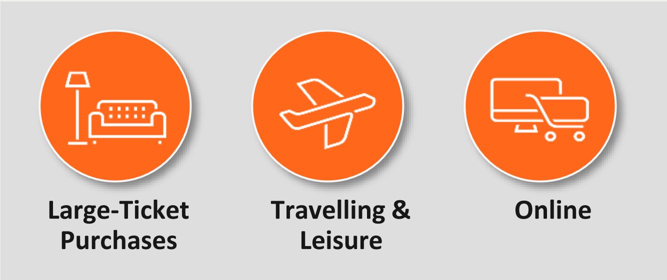
Where does credit card rule?

Credit and debit cards both serve the same payment need. However, they differ dramatically in their source of funding. We summarize it 'pay now with your own money' for debit, while credit cards allow you to 'pay later'. This essential difference is driving consequent differences in purchasing behavior.

"Our debit card customers called for additional pay later flexibility and we are now looking at introducing new credit proposition."

European Bank

Credit cards are most used for



We do not see this only in our data, but this was also confirmed in our interviews. Our interview panel also agreed that this credit card usage structure is not expected to change during the upcoming years.

Large-ticket purchases

The average ticket value is one of the main drivers of the utilisation patterns of a credit card. The credit card often emerges as the preferred choice for higher ticket value purchases. This inclination can be attributed not only to its financing capabilities but also to the fact that consumers perceive credit cards as a guarantee to enhance security, particularly for online transactions.

57% of credit card owners reported using credits cards for **large purchases**

Source: Mastercard Research 2023

There are specific markets like the UK and Germany that stand out since credit card transactions are more than twice the average ticket size of their debit counterparts. For financial institutions, tapping those higher value transactions is an important revenue stream, largely owing to the heightened interchange fees associated with credit card transactions and the associated pay later interest and fees.

Average transaction value for Credit and Debit cards (H1'23)

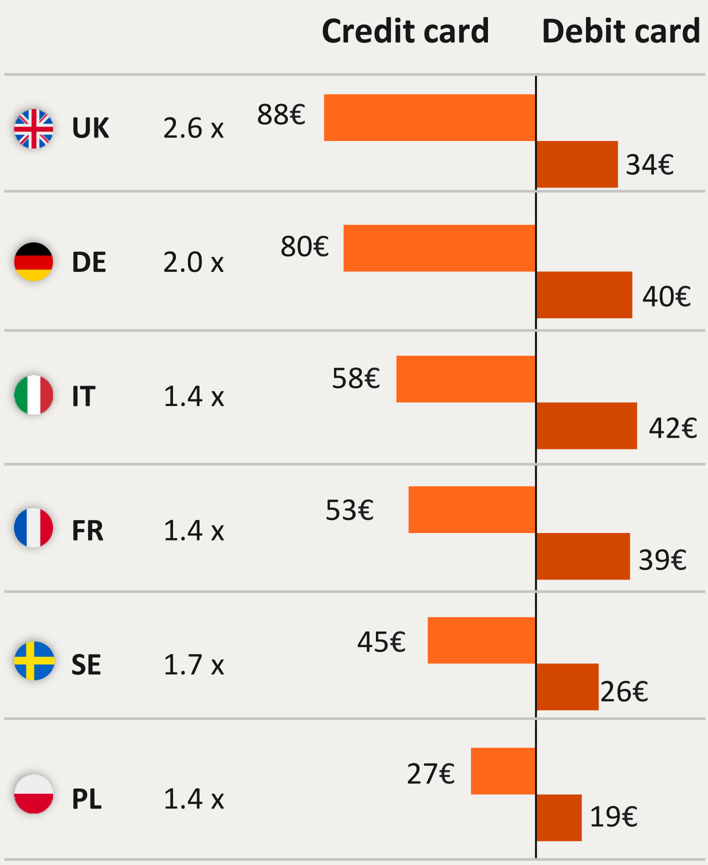


Figure 5 – Comparison between credit card and debit card average ticket. H1 2023. Source Mastercard

Sources: Mastercard data, H1' 2023

Credit card usage in Europe

Retail and Travel remains the key drivers

The Retail segment, with a market share between 35% to 55%, is the driving force behind credit card usage, primarily owing to its significant size and the prevalence of large-ticket and online purchases, particularly within merchant categories like furniture, electronics and clothing,

Historically, travel has always been one of the primary segments for credit cards. Whether it's buying airline tickets, renting cars, booking hotels or at travel agencies, credit cards are the preferred method of payment. For instance, in Germany, travel accounts for 23% of overall credit card usage. Consumer awareness of greater security when using credit cards for online purchases remains a key driver.

Looking ahead, debit and credit cards are expected to give way to digital wallets, as the preferred choice for online checkout payment method.

Digital wallets increasing their share on transaction volume, 2022 to 2026 Forecast

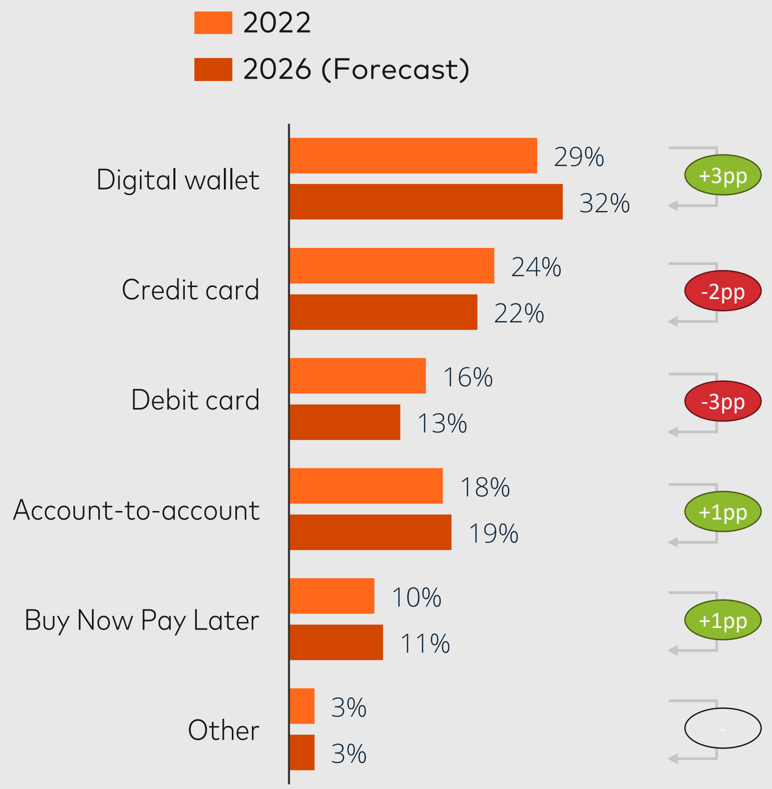


Figure 6 – Share of transaction value, 2022 to 2026 in Europe. Source: Worldpay

Credit card usage by merchant industries H2 '22 - H1 '23

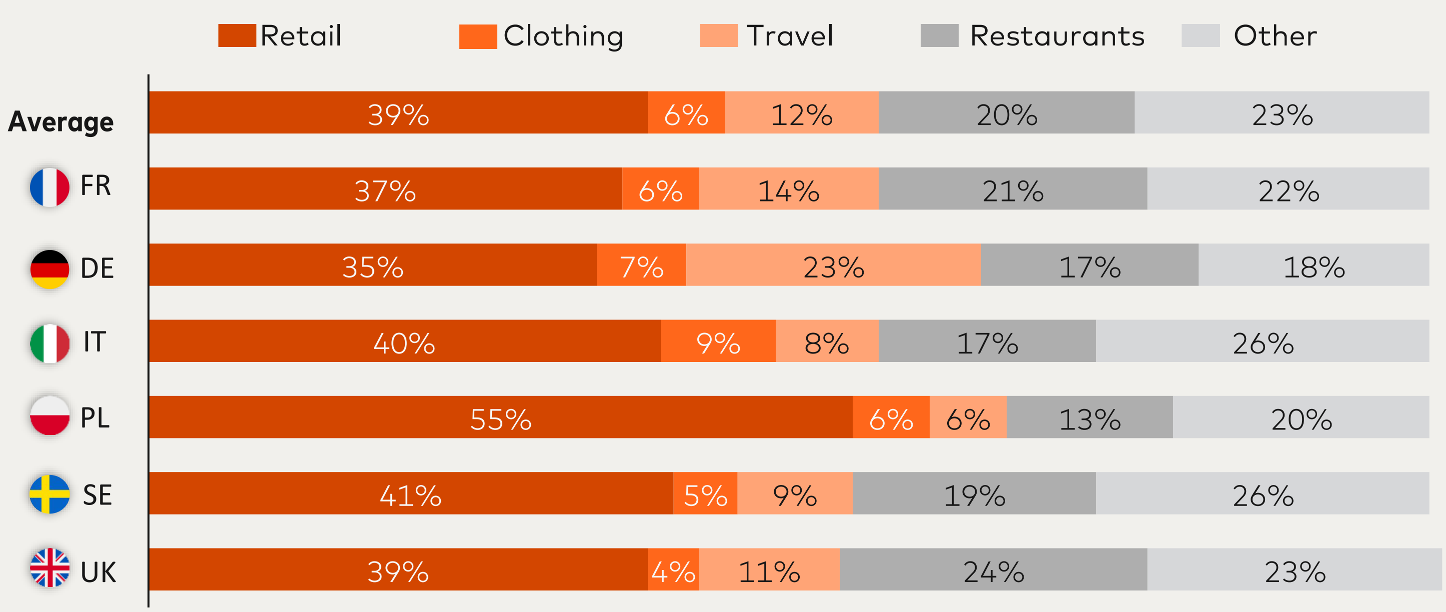


Figure 7 – Distribution of credit card GEV across merchant type from beginning of H2 22 to end of H1 2023. Source Mastercard.

Sources: Mastercard data H2' 22 and H1 23, Worldpay from FIS "GPR 2023 The Global Payment Report", 2022-2026

Travel & flights after Covid-19 in Europe

Since travel and flights is one of the most popular use cases for credit cards usage, we have analysed where we are after Covid-19. Based on flight variance data, flights are still below 6% than 2019 total flights in Europe. However, it's encouraging to see that in the last two years, the number of flights is starting to increase again, after the deeper fall in 2021.

The expectation is that recovery will continue as people will be more willing to travel and spend abroad. According to Mastercard Economics Institute, it is predicted that during the end of 2023 and 2024 the economy will recover.

The full recovery of this market segment will significantly impact the credit card industry and will unlock opportunities to better serve travelers with enhanced travel experiences and card-driven services.

> "Travel is not 100% back, but now most of our customers planned to travel this summer. This makes us confident to expect a full recovery by end of 2023"
>
> Head of Business Development

Air Travel Forecast to 2030

+29%

It estimates a potential growth in 2030 of 29% for intraregional flights in Europe and 24% and 17% with Asia and North America respectively. Source: Bain

Percentage of flights variance compared to 2019

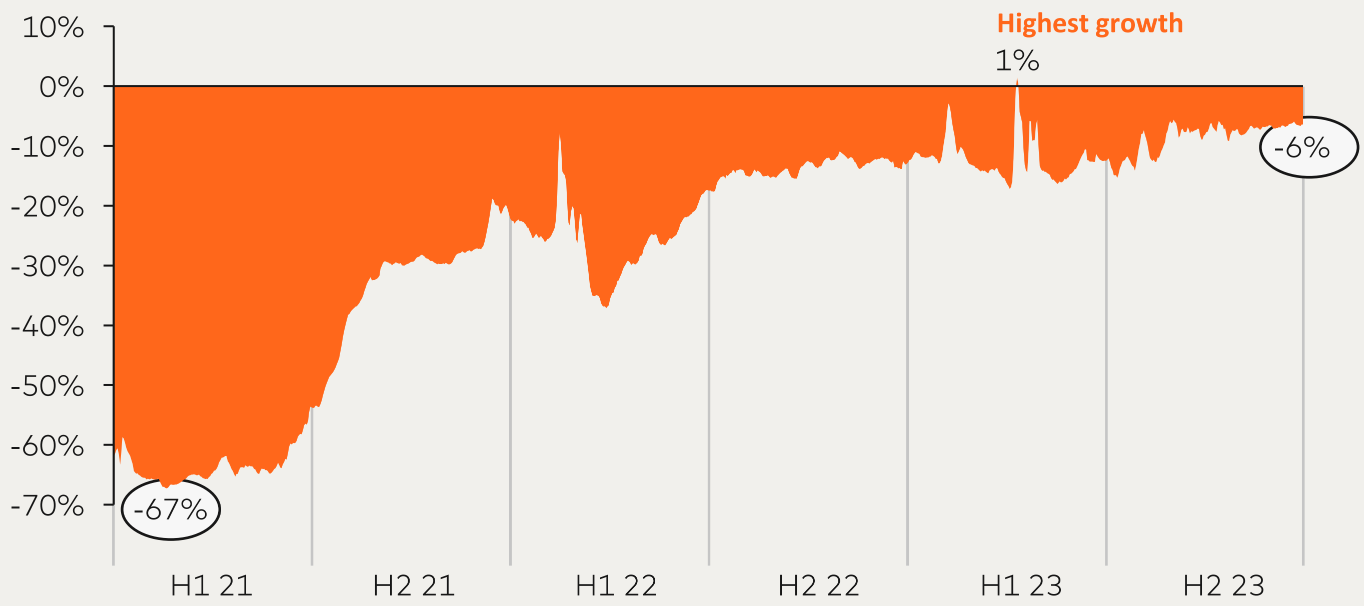


Figure 8 – Flight variance in Europe from 2021 to H2-2023 comparing with 2019. Source: European Control, Aviation Intelligence, Aviation Intelligence, Bain Air Travel Forecast to 2030

Sources: Mastercard data, European Control Data base 2019 to 2023, Aviation Intelligence, Bain Air Travel Forecast to 2030

Different form of credit across the region

Credit and charge cards are the main form of credit in digital payments. This is primarily due to their convenience, international acceptance, payment protection in case of merchant fraud or default and consumer trust built over decades.

While charge cards require cardholders to pay the statement balance in full, usually monthly, with no interest, credit cards are commonly referred as a revolving card, that allows a consumer to pay their balance back over time under defined credit line limits. These two types of credit cards are used differently across Europe, for many reasons, from culture, religious and consumer risk attitude to market financial maturity.

For example, in the UK and some markets in the Nordics, such as Sweden, credit revolving cards are very common. While, in some Western markets, such as France, Italy and Spain, consumers have concerns on revolving cards due a general sense of lack of transparency and distrust of potential hidden high interest rates. Consequently, charge cards have become the main form of credit.

For other countries, such as Germany, there are reasons to be found in German history and the fear of getting into debt and losing control of their finances – this old and deep cultural roots still impacts the low penetration of credit cards among Germans.

> "Sweden and Finland consumers really like revolving. In contrast, there is lower revolving usage Denmark and Norway. These differences are cultural, and deeply rooted."
>
> Head of Card Payments

Charge vs Credit cards share in Europe (2022)

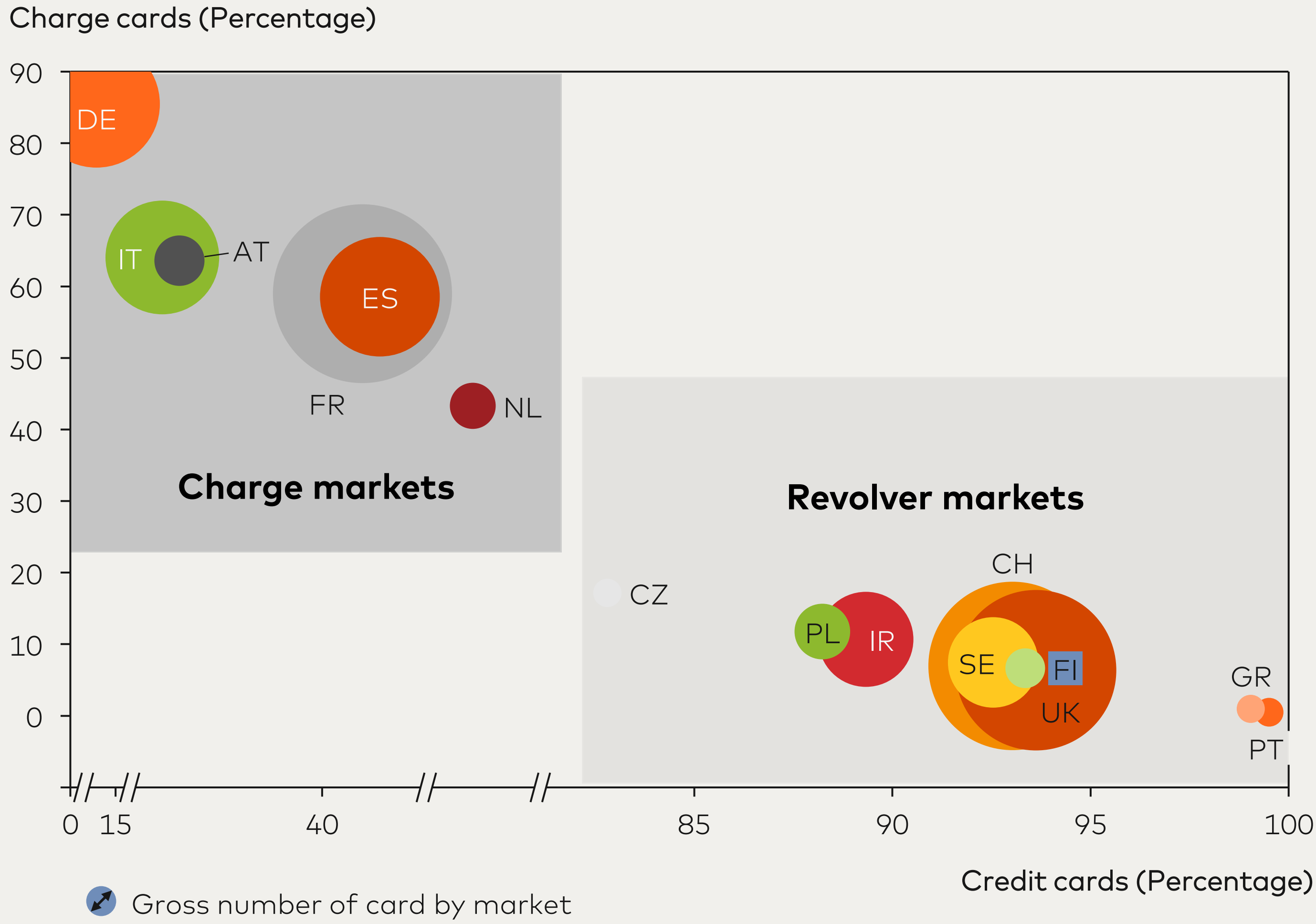


Figure 9– Split of number of cards and GEV across European markets in 2022. Source: Euromonitor.

Sources: Mastercard research, EuroMonitor data on number of cards per country for 2022

Credit portfolio profitability - UK revolving deep-dive

Revolving credit has been a sizeable revenue generator for consumer finance experts and traditional banks. We are noticing declining revolving rates (e.g. share of credit card holders that do not pay outstanding balance in interest free period)

UK credit card data shows a noteworthy decline in revolving credit from 58% to nearly 50% in the past 6 years.. Although interrupted by the pandemic-induced lockdowns, and limited opportunities to spend, the trend showcases a resilient growth pattern of revolving volumes, indicating the enduring significance of credit cards in consumer pay later spending.

According to our research and interviews, the main reasons are that in periods of economic growth, people have less need to use expensive debit facilities but on the other hand, some consumer segments have concerns on lack of transparency of revolving.

> "There is a customer segment that needs the revolving facility not to fall into much more dangerous tools to finance their lack of funds, such as day-loans."
>
> Head of Cards

> "Revolving is perceived by some customers as not a very transparent product, and they have looked for alternative options."
>
> Product Manager

Revolving adoption for UK credit cardholders

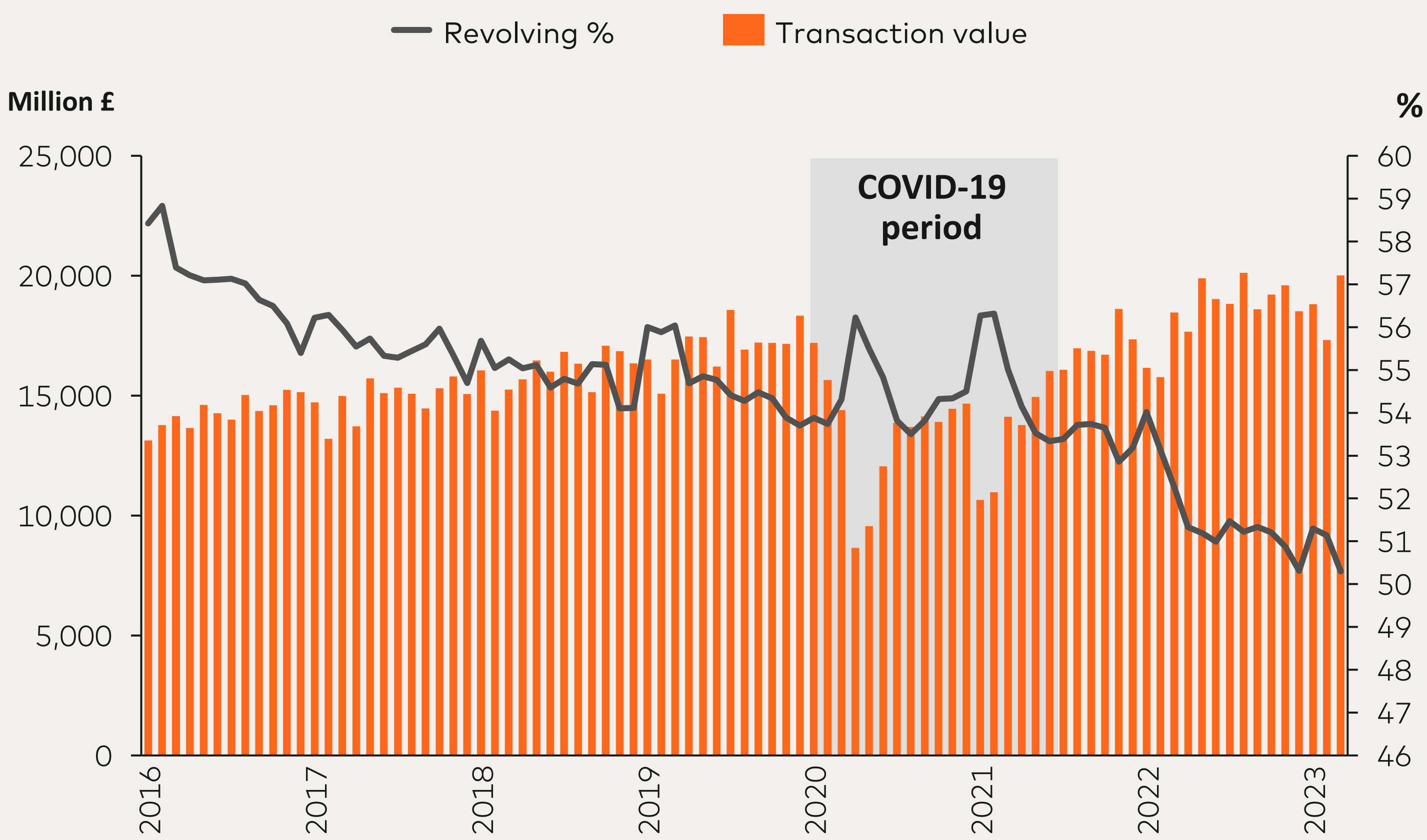


Figure 10 – UK credit card volumes and % of bearing interest (revolving). Source: Bank of England.

Sources: Bank of England UK Finance, Revolving and Credit Card Consumption from 2016 to 2023

Pay Flexible adoption in Europe (2023)

Adoption is strong

Based on AT Kearney market research conducted in 2023, more than half of European consumers have already tried Pay Flexible option, that includes BNPL, payment deferrals and dividing payments into instalments. Sweden and UK are leading, with two out of three consumers having experience with payment deferrals or dividing payments into instalments. BNPL adaption is strong in other countries, such as Germany, Spain, Italy, Poland and Romania, where the adoption is above the region average. BNPL has become more popular over the past few years, fuelled by changing consumer behaviours, new use cases, and a much-improved customer experience.

Non-traditional providers are dominating

Only one in four BNPL offer comes from a bank. Although banks provide the possibility to pay credit card payments in instalments, they have been slower moving into the BNPL space. BNPL providers, such as, Klarna, AfterPay, LayBuy, and other BNPL specialists are dominating in countries such as Sweden and the Netherlands with 85% and 79% of respondents indicating they use BNPL offers provided by non-bank companies.

Have you used flexibility?

(% of respondents who used BNPL/instalments/payment deferrals)

Have not used · Have used

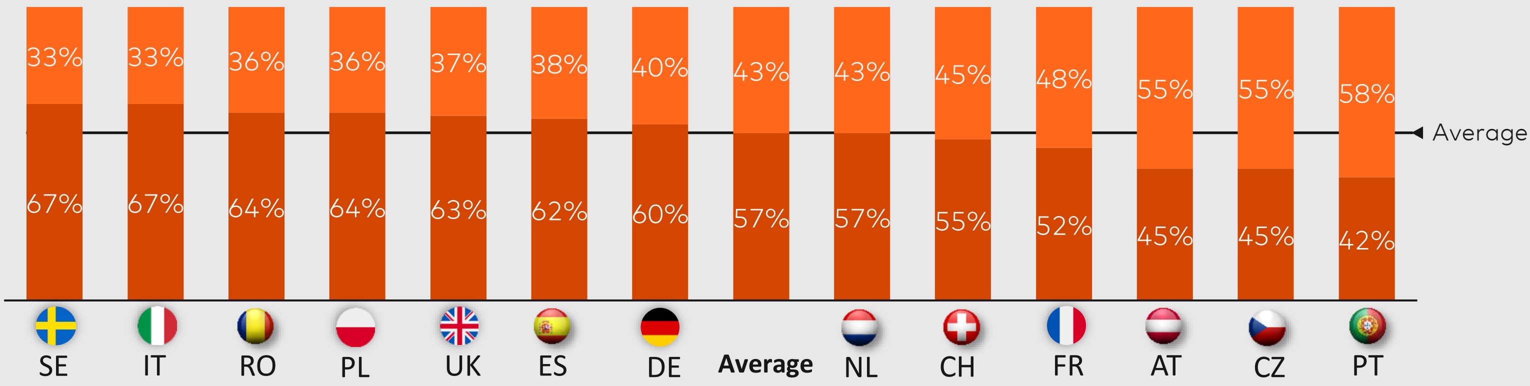


Figure 11 – Adoption of pay flexible solution in 13 European markets . Source: A.T. Kearney 2023

Who was the provider that you have most used?

(% of respondents who used BNPL/instalments/payment deferrals)

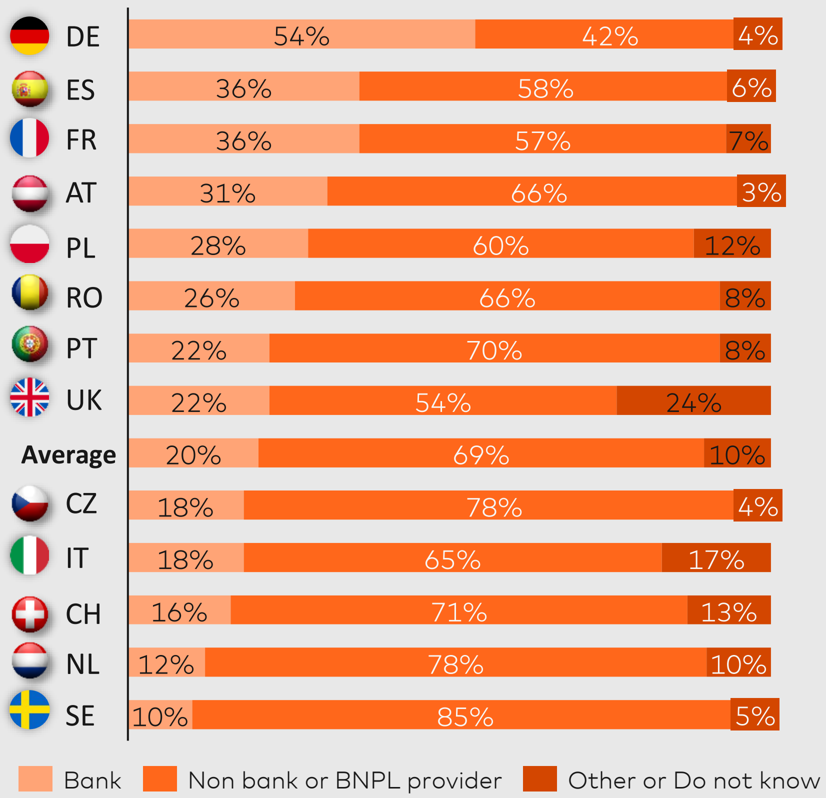


Figure 12 – Main BNPL providers by market. Source: A.T. Kearney 2023

Sources: AT Kearney "European Retail Banking Radar 2023"

> "Banks will need to act soon to stay in the game or risk losing their customers and revenue streams to newer players."
>
> Kearney Expert

Pay Flexible usage

Flexibility is most used for small ticket, under 100€

In 13 European markets in this research, about 50% of users defer or divide payments for purchases with a value of less than 100€. The data suggests that BNPL is now becoming used even for everyday payments whilst previously it was the payment option for bigger ticket size items such as fights, holidays and expensive fashion items. This is more evident in markets such as the Czech Republic (63%) and Netherlands (68%)

Electronics, home improvement, and fashion dominate.

Personal electronics and home improvement are the two most popular categories for BNPL spending across surveyed countries. The preference varies from country to country, but these categories consistently rank high, with more than 50% of consumers in six out of 13 countries having used BNPL for electronics and more than 40% in nine countries for home improvements.

Fashion is also a popular category, reflecting the integration of BNPL into e-commerce fashion platforms

Fashion remains a key industry where BNPL is popular. It is well known that major fashion brands have been a key priority of largest BNPL providers, at the beginning of their history.

What is the average value of purchase?

(% of respondents who used BNPL/instalments/payment deferrals)

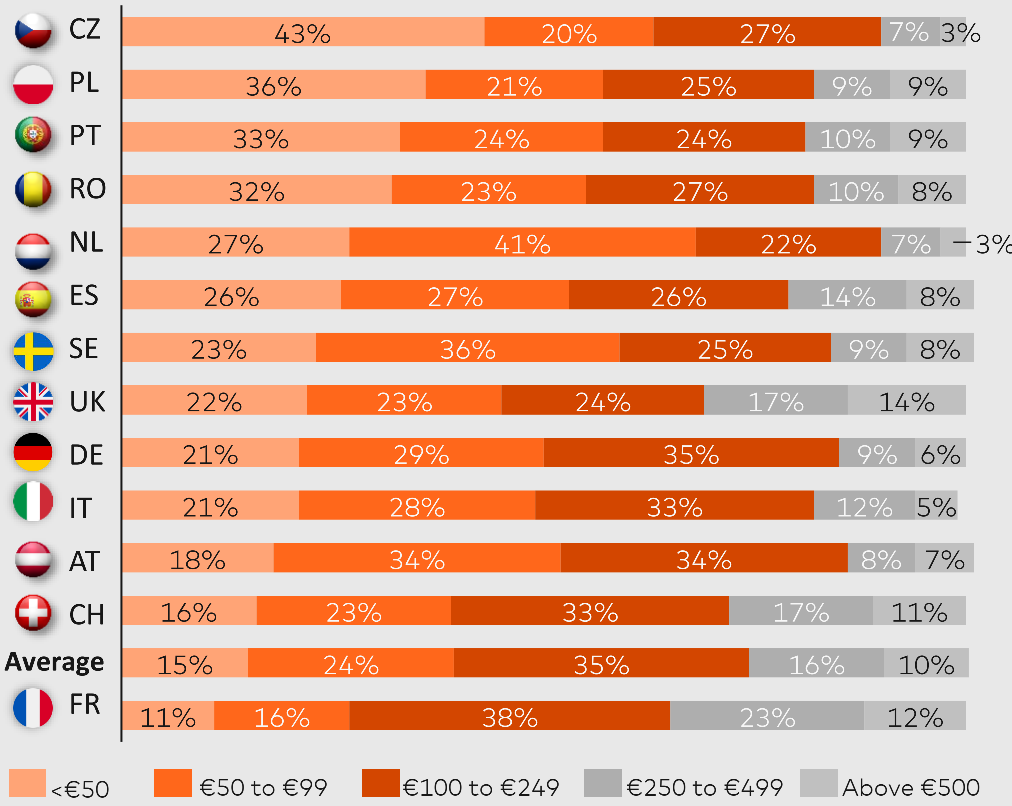


Figure 13 – Average ticket for BNPL. Source: A.T. Kearney 2023

What are the major consumer categories?

(% of respondents who used BNPL/instalments/payment deferrals)

	Eletronics	Home	Fashion	Travel	Entertain ment	Everyday spending
NL	62%	30%	23%	17%	15%	11%
CH	60%	38%	31%	30%	23%	29%
DE	60%	46%	13%	22%	18%	16%
SE	58%	49%	27%	22%	21%	17%
IT	51%	34%	33%	17%	20%	14%
AT	50%	40%	11%	19%	17%	21%
PL	48%	47%	37%	26%	26%	15%
Average	46%	39%	28%	23%	20%	19%
ES	44%	45%	30%	24%	26%	27%
UK	39%	28%	32%	20%	24%	25%
FR	38%	43%	39%	26%	21%	12%
CZ	32%	25%	26%	16%	23%	25%
RO	30%	43%	37%	26%	8%	14%
PT	28%	43%	24%	28%	17%	20%

Less than 30% | 30-39% | 40-49% | More than 49%

Figure 14 – BNPL usage according to categories types. Source: A.T. Kearney 2023

Sources: AT Kearney "European Retail Banking Radar 2023"

CHAPTER 2

The seven trends to keep an eye on

1

E-commerce Remaining a Key Driver

E-commerce has been the wave BNPL players have been riding. While it may have not be as strong as it was during Covid-19, this source of growth is not going away

2

The Rise of Contactless and Digital Wallets

Consumers continue to change their payment behaviour and adopt the most convenient ways for them. Successful Pay later options need to respect that

3

Better and Faster Ways of Providing Credit

There are still many hurdles in accessing credit. Open Banking and new technical solutions are reducing or taking away some of them

4

Unlocking Pay Later Flexibility

Consumers need choice. Between Debit and Credit there are many colours and flavours of Pay Later Flexibility that opened new space for innovation

5

Providing Credit in High Interest Environment

Consumer credit providers have seen their profitability impacted by the high interest rates. Consumers are more conscious about cost of money and late payment costs

6

From Rewarding to Sustainability

Consumers have always loved cashback and miles. Is this the future still as rising ESG awareness calls for sustainable spending?

7

Navigating Credit Consumer Regulations

Central banks and regulators have developed regulations to protect consumers and markets from damaging credit practices

1 E-commerce Remaining a Key Driver

E-commerce has been the wave BNPL players have been riding. While it may not have been as strong as it was during Covid-19, this source of growth is not going away.

SUMMARY

Covid-19 boosted e-commerce

The landscape of e-commerce underwent an extraordinary transformation in recent years, primarily triggered by the Covid-19 pandemic. From 2019 to 2021, the growth of e-commerce surpassed all expectations, with a remarkable 29% increase from 2019 to 2020 and a 12% from 2020 to 2021. As we know that lockdowns and Covid-19 restrictions played a significant role in driving consumers to shift to online purchasing. After Covid-19, It is estimated that 10% of e-commerce global annual growth will be more sustainable compared to the peak in 2020.

Growth of BNPL popularity

Buy Now Pay Later solutions offered a way to stagger payments, turning them into manageable instalments, some of which are interest-free. For those who struggled during the pandemic, BNPL created an opportunity to manage their cash flow and their attractiveness increased dramatically in Youth consumers.

Online shopping is here to stay

According to Mastercard research, groceries and clothing industries remain among the largest e-commerce spend category, even after Covid-19, which shows how the pandemic made consumers change their behaviours and have adopted e-commerce for their day to day lives. We can expect to see e-commerce capture an increasingly large share of the retail market, due in part to the convenience of shopping online, as well as the wider availability of products and services.

27% global e-commerce share in the first semester of 2023, 4% higher than in the first half of 2019

Sources: Mastercard data

E-commerce evolution from 2014

E-commerce changed over years

Since 2014, the e-commerce industry has experienced significant growth, (around 20% in the last eight years). This transformation has been largely driven by new technology and changing consumer behaviours in the adoption of online shopping.

The massive adoption of technology, such as, electronic devices and Internet, have enabled the global reach that now makes e-commerce available for every business, no matter the size, and every user. New players have emerged in online marketplaces where third-party sellers like Amazon, eBay and Alibaba have provided platforms for large and small businesses to sell online and reach a larger audience. Billions of transactions produce tons of data that has been analysed to develop tailored offering to consumers. New technology such as Machine Learning have been applied in e-commerce industry to offer personalized online shopping experiences.

In this fast-growing market in recent years we experienced the rise of deferred payment solutions, known as Buy Now Pay Later (BNPL), as alternative of traditional credit cards. These providers have been riding the huge e-commerce growth in the last years, winning the preference of the youngest consumers due to their convenience and initially their soft credit checks.

Expectation for upcoming years

The expectation for the upcoming years is that ecommerce continues growing at a lower pace than during covid however, representing more than 20% of total volumes in developed markets. Covid 19 was a great boost to ecommerce but the slow down comes due to the opening of stores and decline in a few segments in online transactions, such as, subscriptions, furniture, and others, while other segments remained strong, such as, clothing, electronics.

The expectation for the future is that ecommerce will continue to grow although at a lower pace, it will still represent more than 20% of total volumes in developed markets.

In the upcoming years online purchases will keep rising and it is estimated a growth around 9% up to 2026, mainly due to the continued adoption of online purchasing by consumers, especially in markets where adoption still has room to grow.

Worldwide e-commerce growth 2014-2022 Forecast to 2026

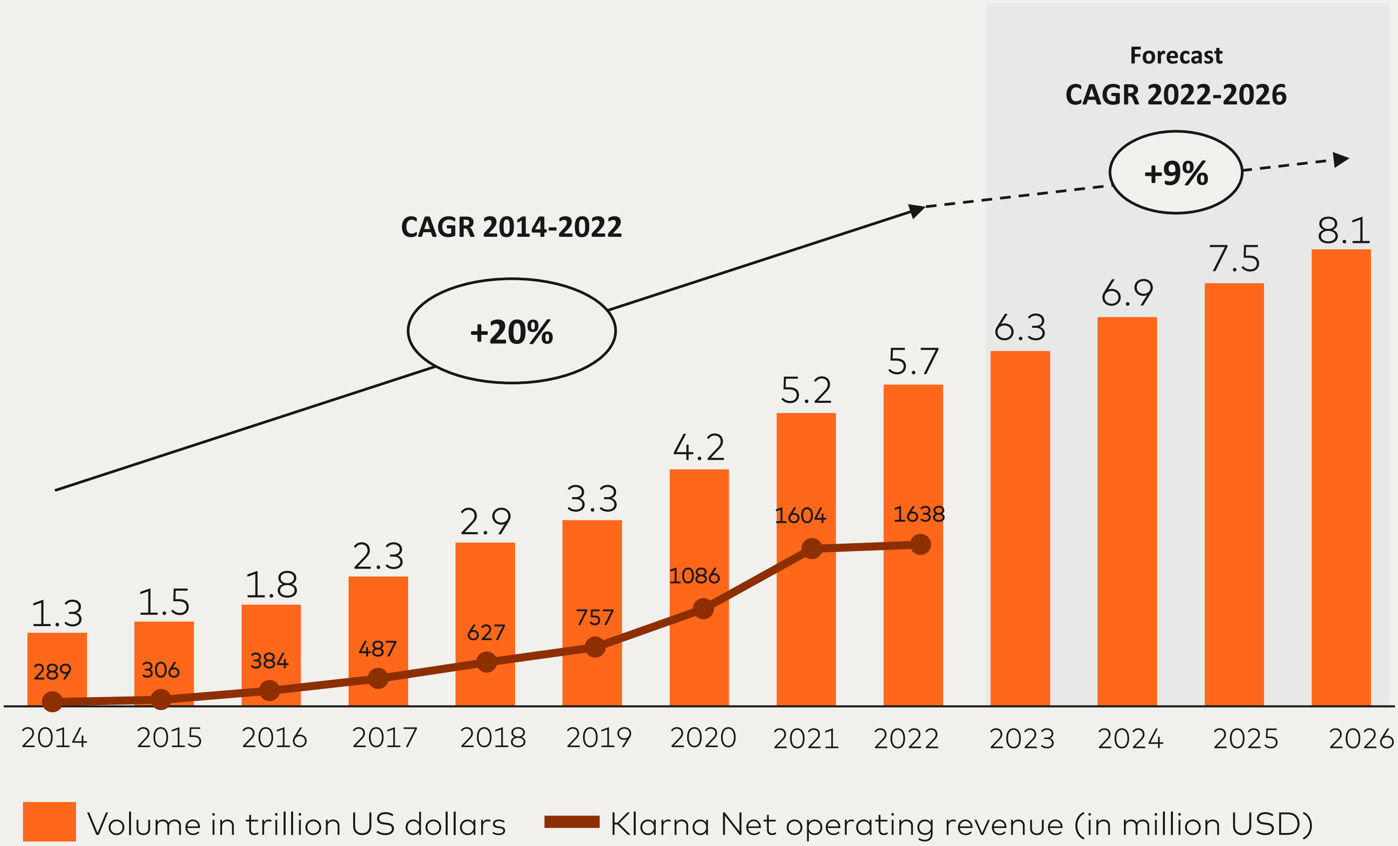


Figure 15 – Ecommerce growth since 2012. Sources: Statista, eMarketer, Insider Intelligence, Klarna Annual Report

Sources: Statista, eMarketer, Insider Intelligence, Klarna Annual reports from 2014 to 2022

Credit card on e-commerce in Europe

Online consumption after Covid-19

In Europe, post Covid-19, the growth of e-commerce is slowing down since stores have opened again and all restrictions have ended. However, there has been a switch in online consumption. Retail online purchases, such as groceries and clothes, are remaining strong after the pandemic and purchases in electronic, furnishing and subscriptions are returning to pre-pandemic levels. Additionally, online travel purchases are also starting to return to pre-pandemic levels with signs of a full recovery.

E-commerce market share in Europe

During the two main Covid-19 lockdowns, in most of the European markets, the e-commerce share reached close to 35% of total purchases, while in 2019 it was close to 20-25%. Today, e-commerce represents around 27% of purchase volumes on average in Europe, where the largest e-commerce market is the UK with 36% of share.

E-commerce market share 2019 and 2023 - Europe

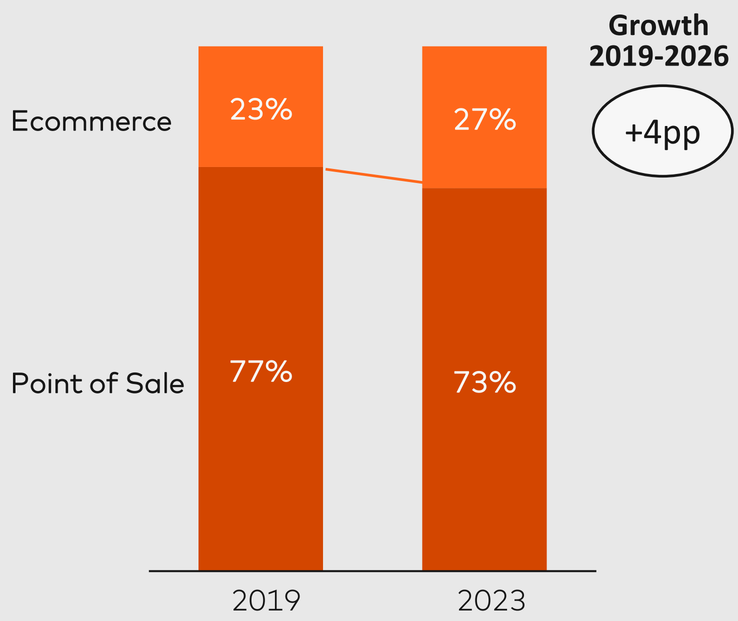


Figure 16 – E-commerce vs POS share, H1 2019 vs 2023 in Europe. Sources: Mastercard

E-commerce volume trend since Q1 2019 - Europe

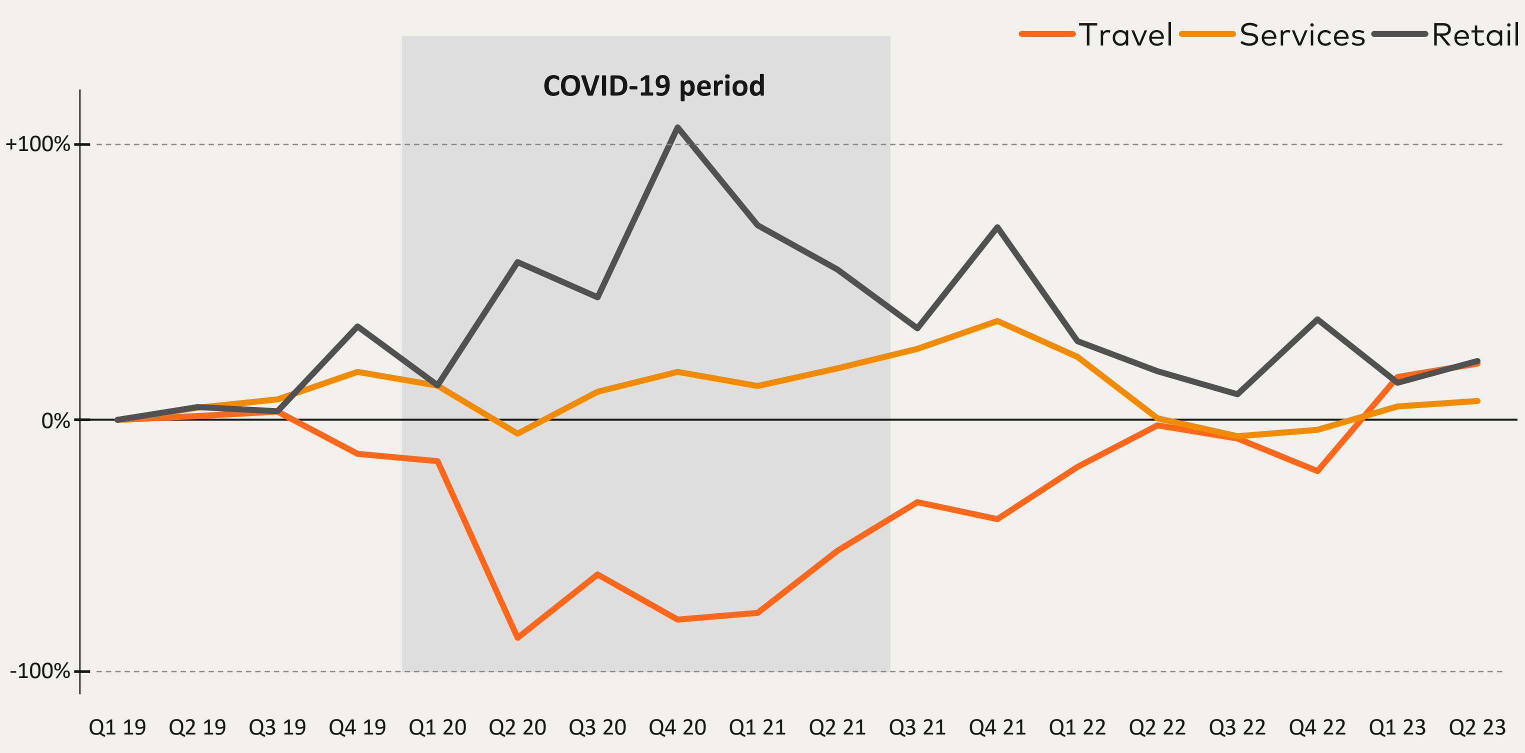


Figure 17 – E-commerce quarterly growth from Q1 2019 for Retail, Services and Travel industries. Sources: Mastercard

Sources: OECD, Mastercard

2 The Rise of Contactless and Digital Wallets

Consumers continue to change their payment behaviour and adopt the most convenient ways for them. Successful Pay later options need to respect that

SUMMARY

Large adaption of digital payments

The digitalisation of the payments industry, combined with the impact of Covid-19, has accelerated the adoption of digital payments. Contactless payments, digital wallets, such as Apple Pay, Google Pay and local domestic wallets - and alternative payment methods, such as Payconiq or MBWay, have become popular across Europe. People are embracing these new technologies that offer convenience, seamless and user-friendly experience.

Digital lending innovation

This shift in consumer behaviour can be the vehicle to spread digital lending offerings and get consumer traction. For example, players such as Apple in US with Apple Pay Later and Monzo in UK with Monzo Flex have already introduced credit solutions through digital wallets that will benefit from this technological solution combined with new innovative ways to provide consumer credit.

Consumer shift in everyday payments

The digitalisation of essential services, such as mobile ticketing, played a significant role in democratizing digital payments, as people increasingly turned to their smartphones for seamless transactions. For example, Rome or London public transportation already embrace digital wallets acceptance which allows consumers to use local public transportation by paying with their card through their digital wallets.
All this has contributed to the growth of card acceptance across the region. Consumers are adopting digital payments as a substitute to cash, which in the UK has seen a decline by 10%.

21% contactless growth in Euro Area 19, from 2019 to 2022, according to ECB

Payment methods shift from Traditional to Alternative

Contactless payment is experiencing significant growth and according to Mastercard data, it accounts to 50% of global in-store payments. The pandemic acted as a catalyst for the adoption of contactless payment methods and ECB data tells us that, contactless payments will reach closer to 60% of total payments in the UK until 2026.

The main impact for consumer credit is the switch from cash to card payments throughout the last years that impacted positively the growth of GEV of both debit and credit cards across the region. This change in consumer behaviour is expected to continue throughout the upcoming years with cash continuing to decrease across the region, especially in Southern and Eastern Europe where cash is still considered one of the primary payment options, according to Mastercard research and ECB.

"Covid has accelerated the massive adoption of contactless and digital wallets by consumers"

Head of Cards

Contactless growth from 2019 to 2022

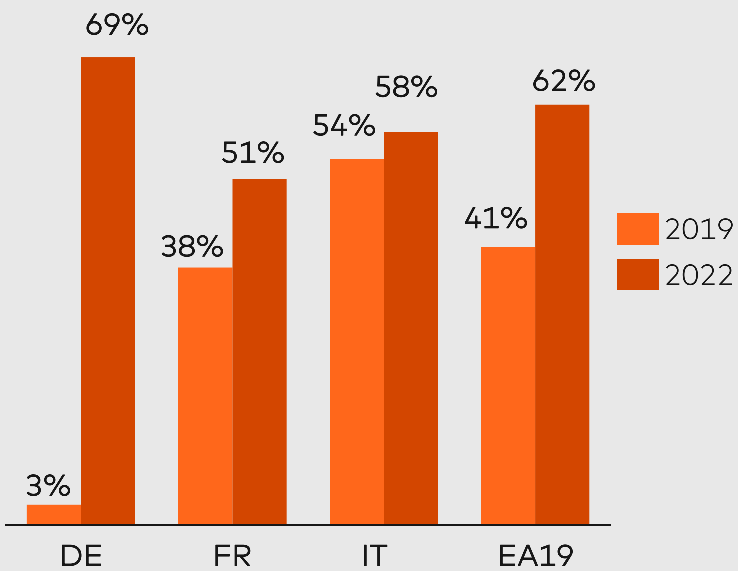


Figure 19 – Contactless growth in Europe in number of transactions. Source: ECB

On the e-commerce front, digital payments have become the new normal and in 2021 the total amount of online purchase transactions was for the first time higher than in-store transactions. In addition, it is estimated that Alternative Payment Methods (APM), such as, international and local digital wallets can reach 62% of the total e-commerce transaction value by 2026.

Share of e-Commerce checkout methods

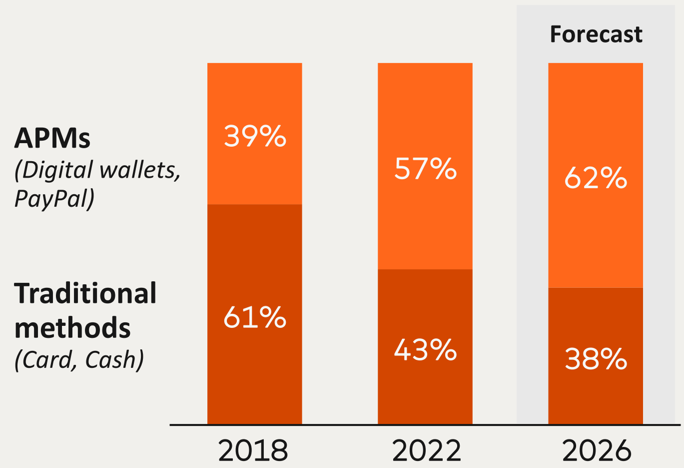


Figure 18 - Europe e-commerce share of transaction value 2018-2026, comparison from Alternative Payment Methods versus Traditional Methods. Source: WorldPay

Furthermore, advancements in payment technologies, such as tokenization and encryption, have bolstered security measures, promoting trust among consumers and reducing concerns about fraud and data breaches. This enhanced security, combined with the ease and speed of digital payments, has contributed to their rapid growth and widespread adoption.

This growth in digital payments is also an opportunity to drive the growth of consumer credit products, that should be designed as full digital offerings by default and should be embedded into the latest e-commerce solutions such as checkout button – e.g. Click to Pay and in-digital wallets as Apple did in the US with the launch of Apple Pay Later.

Sources:, ECB Contactless share 2019 to 2022, Mastercard, , Worldpay from FIS "GPR 2023 The Global Payment Report", 2022-2026

The opportunity for consumer credit

The growth in contactless and digital wallets will provide more convenience for consumers to make payments and by consequence will allow consumer credit accessibility anytime and anywhere by using their device both in-store and online.

During 2022 and 2023, several solutions were launched across the globe, for instance Apple Pay launched Apple Pay Later in US and Mastercard worked with financial institutions and merchants to provide a better check out experience with Click to Pay, that was launched in 2019 in the US and later in Europe.

Apple Pay Later allows consumers to use a virtual card to pay later in 4 instalments or by monthly instalments all in app, with easy access to select the date of payment, amounts and all basic management that makes the solution transparent to consumers.

Click to Pay, a Mastercard solution that improves a consumers experience in accessing flexible credit. The solution provides a seamless experience by incorporating flexible lending card solutions as a payment method during the checkout process all within a few clicks.

The impact of these solutions will not only allow flexible lending growth and increase acceptance across the globe but will also provide strong competition for Buy Now Pay Later players as Issuers will have more tools and channels to offer consumers credit through digital channels making the experience for consumers seamless.

It is still hard to estimate the-value of impact in consumer credit. It will all depend on issuers time to market in developing and launching similar solutions in the consumer credit landscape. However, these digital solutions can be a trigger to grow the appetite of issuers. In the next page we will deep dive into the Apple Pay Later use case and value proposition.

Comparison growth of contactless and Digital wallets in UK

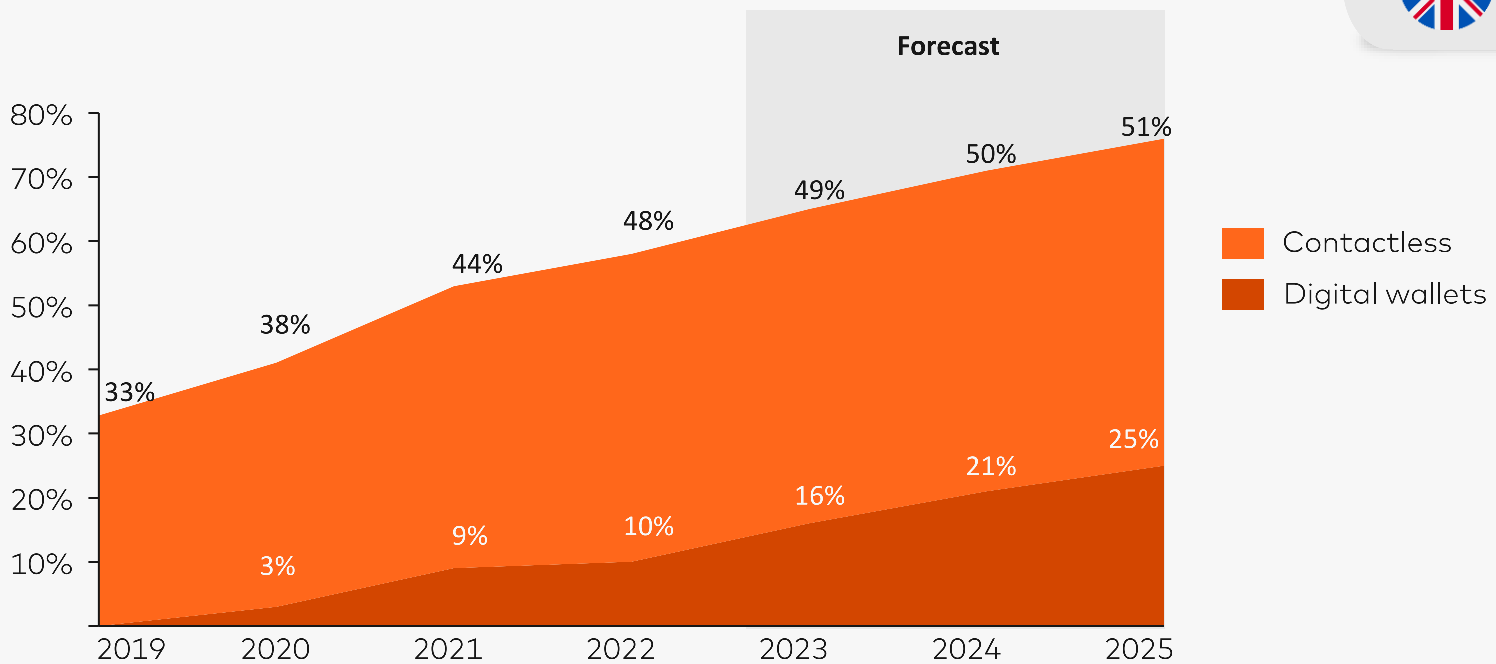


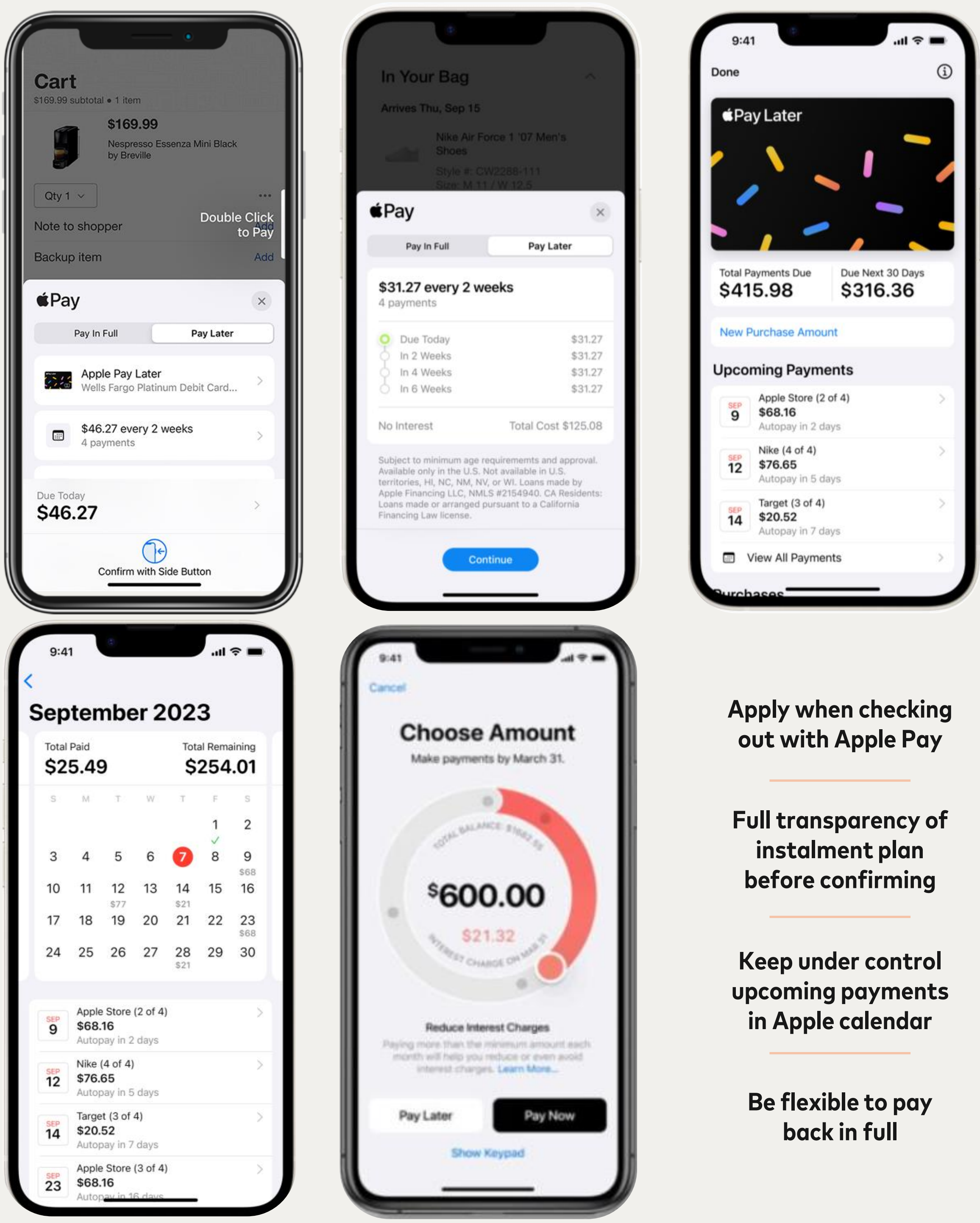
Figure 20 – Evolution of contactless and digital wallets payments in the UK from 2019 to 2025. Source: RBR, Global Data, Mastercard.

Sources: Mastercard analysis, RBR, FIS, Apple web site

Apple Instalments US

Apple Pay Later was launched in 2023 in the US to strengthen Apple's financial business. The product was launched in collaboration with Mastercard and is accepted at any online merchant that accepts Apple Pay and in Apple Store, from 50$ to a maximum of $1K.
Developed to offer a simple user experience and, according to Apple, with a focus on users' financial health in mind. Apple Pay Later allows users to split purchases into four payments, spread over six weeks with no interest and no fees.
Users can easily track, manage and repay their Apple Pay Later loans in one convenient location in Apple Wallet, which provides a full digital experience in the same app. Apple users can apply for Apple Pay Later loans of $50 to $1,000, which can be used for online and in-app purchases made on iPhone and iPad.

Apple Pay Later Key Features



Apply when checking out with Apple Pay

Full transparency of instalment plan before confirming

Keep under control upcoming payments in Apple calendar

Be flexible to pay back in full

Figure 21 – Apple Pay Later user experience screens. Source: Apple website

Sources: Mastercard analysis, RBR, FIS, Apple Pay Later news

3 Better and Faster Ways of Providing Credit

There are still many hurdles in accessing credit. Open Banking and new technical solutions are reducing or taking away some of them

SUMMARY

Access to credit and unsolved concerns

In Europe, consumers have often experienced complex and time-consuming procedures to access credit, generating friction and frustration along the journey. That is still one of the reasons why consumers are reluctant to apply for credit cards.

New technologies as a driver to fill the gap

Open Banking and Artificial Intelligence solutions may be the driver of a change towards streamlined and enhanced experiences for consumers. Through the utilisation of Open Banking, Financial Institutions can access information from third-party sources, requiring less information from consumers with simpler customer onboarding and better credit risk decisioning. To unlock the full potential of Open Banking, the industry still needs greater consumer trust in sharing their financial data in confidence with high data protection standard.

The role of Fintech

Fintech players have been emerging in the Open Banking industry by providing new solutions that integrate data from different sources to provide innovative solutions to support financial institutions access the "thin file" customers, who are customers with little or no credit history.

For example, Taktile provides a marketplace platform to access data from multiple third-party sources for risk assessment including open banking partners and Kipp provides data for issuers to assess the consumers financial situation and potentially increase credit approval rates.

"Open Banking is working. At scale?...not yet, but it will. Open Banking is critical for credit decisioning."

Technology Company Lead

Breakthrough in Open Banking Data

Open Banking involves the sharing of financial information, including transactional and account data, between banks and authorised third-party providers using APIs. This sharing of data can be categorized into three main types: regular data, alternative data and alternative assessment.

Regular or common data are the most accessible and used data today in Open Banking between banks and third parties and that refers to simple information about consumers contacts, financial products and money flow within the accounts of that specific consumer.

Secondly, **Alternative data** represents a more detailed level of information, which can include payment of bills, taxes, home ownership and others. Some of these information come from third parties, such as, credit bureaus or data providers specialised in open banking, this allows a higher level of detail in the analysis of the consumer.

And finally, **Alternative Assessment**, that includes cash flow analysis, psychometrics, social networks behaviour or mobile device model, which is even more detailed and represents a more complex level of access and assessment due to its complexity.

Large institutions, are investing and providing innovative open banking solutions, for example Apple acquired Credit Kudos – the UK's leading open banking fintech and Mastercard acquired Aiia and Finicity to expand their capability in better serving the open banking industry.

> "New technologies can step-up the access to credit, but we need to resolve some of the lack of trust within the ecosystem"
>
> Head of Consumer Cards

USE CASE

Innovative open banking and AI fintech players

Taktile

Taktile is an American/German fintech that provides a software for businesses to build, run and evaluate automated credit decision flows.

It developed a credit risk assessment platform fully-integrated with third party data partners for collecting fraud, identity, accounting and alternative data of consumers to enhance credit risk profiling.

The platform is also integrated with consumer credit bureau.
Main user is the credit risk analyst team.

In 2022, Taktile raised €20 Million in a Serie A funding round, to develop their decision-making platform.

kipp

Kipp, a fintech innovator founded in 2021. Kipp bridges the gap between card issuers and merchants, amplifying transaction approvals and driving revenue and loyalty.

Kipp's platform supports issuers in optimizing authorization rates by connecting them with merchants ready to share pivotal data to aid in decision-making, and in the case of credit-related declines, to participate in the cost of risk.

algoan

Algoan is France-based open banking fintech credit decisioning expert, founded in 2018. Algoan is one of the leading Credit Scoring API companies in Europe, it provides financial institutions, retailers and fintech with credit decisioning tools that can be used in a variety of use cases such as BNPL, consumer credit, car financing, etc.

Based on Open Banking and secure sharing of bank account data, Algoan solution enables a cut of credit risk by up to 50% and an increase in loan production by up to 40% while lowering processing costs and offering a seamless 100% digital pathway to credit applicants.

Sources: Mastercard, Taktile, Kipp

How can Open Banking be used for credit business?

Onboarding Process

Streamlined UX: access customer data securely and with their consent from various sources, such as banks, fintech, and financial aggregators.

- Enhanced KYC: allow banks to access real-time and comprehensive data, enabling more accurate customer profiling and risk assessment using leveraged data and artificial intelligence models. There are multiple providers that offer integration with third parties for KYC. For example, Plaid in the UK provides an API-driven data platform to financial institution through all-in-one integration model and Mastercard Account Owner Verification, that will instantly verify, people are who they say they are.
- Personalized Product Offerings: banks can gain deeper insights into customer behaviour, preferences, and history by leveraging the data acquired through Open Banking.

Credit Risk Analysis

Access to Comprehensive Data facilitates Credit Risk scoring. This data includes transaction history, income, and spending patterns from multiple accounts using AI models. Taktile and Credit Kudos use open banking to feed risk assessment models by integrating with open banking partners through API.

- Real-time Risk Monitoring: facilitate real-time data sharing, enabling banks to monitor changes in customers' financial circumstances including information regarding monthly salaries and other relevant information for continued monitoring of consumer wealth.
- Collaboration and Data Integration: promotes collaboration between banks, fintech companies, and credit bureaus. By sharing data securely and data analytics capabilities, enables more accurate credit risk analysis and improved decision making. SingSaver is integrated with CitiBank to optimize and perform a better onboarding experience when customers want to acquire a specific product or service.

Figure 22 - Efficient and innovative ways to provide Credit. Source: Mastercard research.

"Our customers want easier and safer experience. It doesn't matter to them what technology we use to make them happier. Open Banking can solve this problem."

Head of Product

Sources: Mastercard Data & Services Open Banking practice, Algoan, This is Bud Onboarding and Credit Risk pages, The Paypers "Open Banking: accelerating customer onboarding and conversion"

4 Unlocking Payment Flexibility

Consumers need choice. Between Debit and Credit there are many colors and flavors of Pay Later Flexibility that opened new space for innovation

SUMMARY

A glorious beginning
Flexible online checkout finance products have grown over the past years by meeting consumer demand for convenience – offering virtually no interest or fees, a simple user experience and no need for credit scoring. We are talking about Buy Now Pay Later solutions that have been well welcomed mainly by the young generations that never had a credit card or credit history at all.

The perfect storm
However, recently, BNPL players have been facing challenges on several fronts: higher interest rates and associated higher cost of lending impacting their profitability; increasing scrutiny by regulators; intensive competition. The online check out experience also became less transparent due to multiple BNPL buttons to select from. In addition, BNPL players have been facing increase in the cost of expansion, and revenues have not had the same pace of growth as during Covid-19 with the surge of e-commerce. Finally, the increase in missed or late payments have had a direct impact on the bottom line. All these factors have generated uncertainty in the future of BNPL industry, cooling of investors sentiment and valuations of these companies have declined dramatically. The expectation is that the market will consolidate. Smaller players will be absorber by larger ones, large ones will need to focus on their cost efficiency and introduce late payment fees. We are already seeing some of the international players pulling out from their non-core markets.

The future expectations
Traditional players now have a window of opportunity to catch-up with the BNPL industry by looking at innovative solutions originating in banking apps, offering similar convenience and better control, while leveraging the card rails. A good example of this new approach is Monzo Flex in the UK or Pagolisto from Santander in Spain, which offer to their consumers ~~a~~ better transparency, ~~a~~ full control of repayments and a simpler user experience, while lenders can count on more sustainable economics. These solutions have been gaining traction and gaining popularity with their customers.

"Credit card is still the preferred online checkout method, but BNPL is a very close alternative."

Head of Revenue

"European BNPL market will consolidate. We estimate there are 250 companies operating in this space now, we expect this to come down dramatically in the coming years."

BNPL panelist

Flexible pay later solutions in Europe

Recently, the market has seen the emergence of diverse solutions aimed at enhancing payment flexibility for consumers. These solutions all revolve around a common consumer desire: to gain better control over their finances and repayment schedules. Traditional issuers, BNPL fintech firms and merchants have introduced their own approaches to address this demand, tailoring their strategies to fit various market dynamics, business models and consumer benefits. The ultimate winner in the race for consumer preference remains uncertain and in the short term these solutions will need to coexist. In the long run a dominant market standard will be established, however, the underlying demand for increased payment flexibility is a lasting one.

	Product concept	Description	Provider	Case in point
1	**Card-linked Instalments**	Instalments associated with an existing debit or credit card, funded by issuers	Issuers	NatWest, nexi, Virgin money, monzo
2	**Stand-alone Instalments Card**	Providing a dedicated card to install all purchases, funded by issuers	Issuers	monzo, Santander
3	**BNPL Checkout Finance**	Merchant funded instalments through developing a network of merchants	BNPL players	Klarna., divido, afterpay, Alma
4	**Merchant Checkout Finance**	Merchant funded instalments at checkout, online and in-store	Merchants	IKEA, TESCO, amazon, zalando

Table 1 – Four types of pay later models in Europe. Source: Mastercard analysis on public information

Card-linked Instalments

While in the past, Instalments solution was offered for purchases with credit cards, levering existing credit line, now there is a definite sense that a change is underway. Issuers are now also looking at how to offer a post purchase instalment experience, for purchases made with debit cards or bank transfers with a proper management of the credit line. Considering the large penetration of debit cards in Europe, this change might be the right move to unlock unpenetrated markets.

Stand-alone Instalments Card

The Instalment Card is one of the latest solution introduced in the market. Issuers are providing a stand-alone digital card allowing consumers to pay back over time all purchases made with it, up to the pre-approved card limit. Often, the card has a default instalment option, such as pay in 3, but consumer can change the Instalments settings anytime, have full visibility of remaining payments and have choice to pay back in full, if needed. The instalments card is targeting existing customers, that have a debit card but want additional credit flexibility, or new customers for lenders that have real time lending capabilities.

BNPL Checkout Finance

BNPL checkout finance allow consumers to spread the cost of purchases over time, for example pay in 3 interest-free instalments. The first payment is made at point of purchase, with remaining instalments scheduled automatically. This payment method is linked to bank accounts, card payments or merchant digital wallets and works on the relationship between a lender who underwrites the loans and the merchant that is paid in full at the time of purchase. Klarna, AfterPay, Divido are examples of finance checkout solutions.

Merchant Checkout Finance

Merchant checkout finance is a similar model to BNPL checkout finance and allows merchant's customers to have a reusable credit account as payment method. The Instalment provider is the merchant through a third-party lender as financial partner. This model is usually provided by large merchants mainly for online purchases but also applicable for in-store purchases.

Sources: Mastercard internal analysis, Companies profiles

Consumer preference for BNPL in UK

In the UK 10.1 million individuals embraced BNPL services in 2021, based on Bain&Co research. This research compared BNPL and credit cards usage and confirmed that credit cards remain the dominant choice across various age groups, while BNPL adoption is growing among digitally native.

The allure of digital-first services and the propensity for lifestyle-oriented products appear to attract the younger demographic, moreover, their tendency to shy away from traditional credit sources further cements this inclination towards BNPL. While the youth undoubtedly flock to BNPL, its appeal extends also to older audiences in their thirties and forties appreciating convenience and low interest rates. This surge in BNPL adoption in the UK signals a potential pivotal shift in the financial landscape.

In the future it's likely to see BNPL services and credit instalment cards co-existing and fitting into differentiated customer segments and financial needs. This surely is a wake-up call for traditional credit card providers needing to look and review their consumer propositions.

> "Consumers want better transparency, clearer fees, free to change mind with no surprises."
>
> Head of Product

Percentage of online shoppers who are credit card or BNPL users in UK

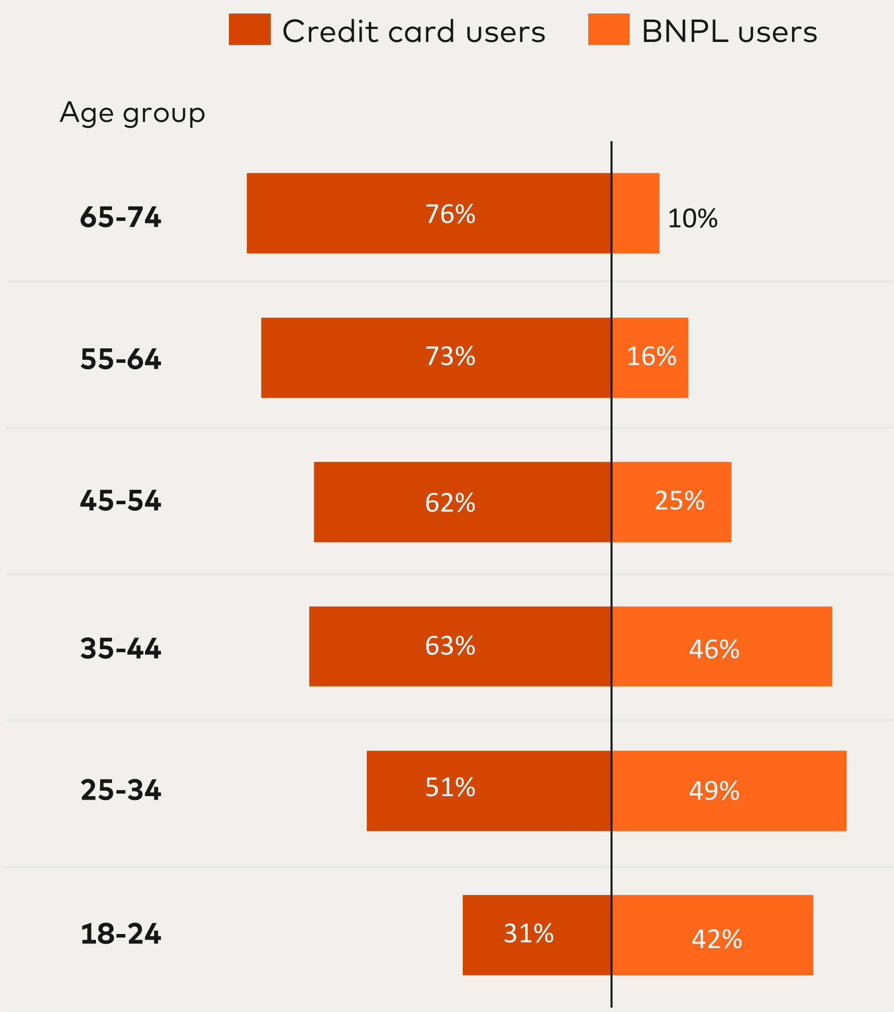


Figure 23 – Survey of UK consumers who shopped online. Sources: Bain&Co

Sources: Bain & Company survey of 2,002 UK consumers who shopped online in the past 12 months, conducted July 2021

Innovative card rail instalments solution

Monzo, a UK fintech bank with 8 million customers, is leading the way with their Monzo Flex solution, that provides consumer lending with a credit limit on a physical or virtual card that can be used both online and in-store as a payment method.in Consumers can opt for two ways of splitting transactions into instalments: by paying with the pre-approved card (see next page box) or by splitting a purchase made with the Monzo debit card into instalments within 2 weeks after the purchase (see below box). Consumers can split both low and high value transactions which makes it very flexible for consumers to select any transaction , a full digital experience just with a few clicks and in a very transparent way. Ease of use and transparency are the key pillars of the Monzo Flex value proposition. Consumers can apply for the Monzo Flex easily, handling instalments in full control and have flexibility to adjust repayment of transactions anytime. Monzo has been considered a successful use case in the UK and was awarded the best credit product in 2023 by Smart Money People.

Monzo Flex Value Proposition

- What: Monzo Flex is a Credit Card that instalment features to Monzo debit card customers
- Who: Eligible Monzo bank customers, residents of UK older than 18 y.o
- How: Pay in full on your next payment date, or split transactions in 3 (interest free), 6 or 12 payments with an APR associated. Users can also Flex any existing Monzo debit card transaction made in the last two weeks
- Where: Any transaction at any merchant
- Fees: APR of 29% when the payment is made in 6 or 12 months (November 2023). No late fees
- Limite: Up to £3,000 depending on eligibility

"Monzo gives customers visibility over actual costs of their purchases and control of their repayments"

Product Manager

Monzo Flex User Experience – Illustrative

Swipe to Flex from Debit Card | **Flex Product Overview** | **Choose How to Pay**

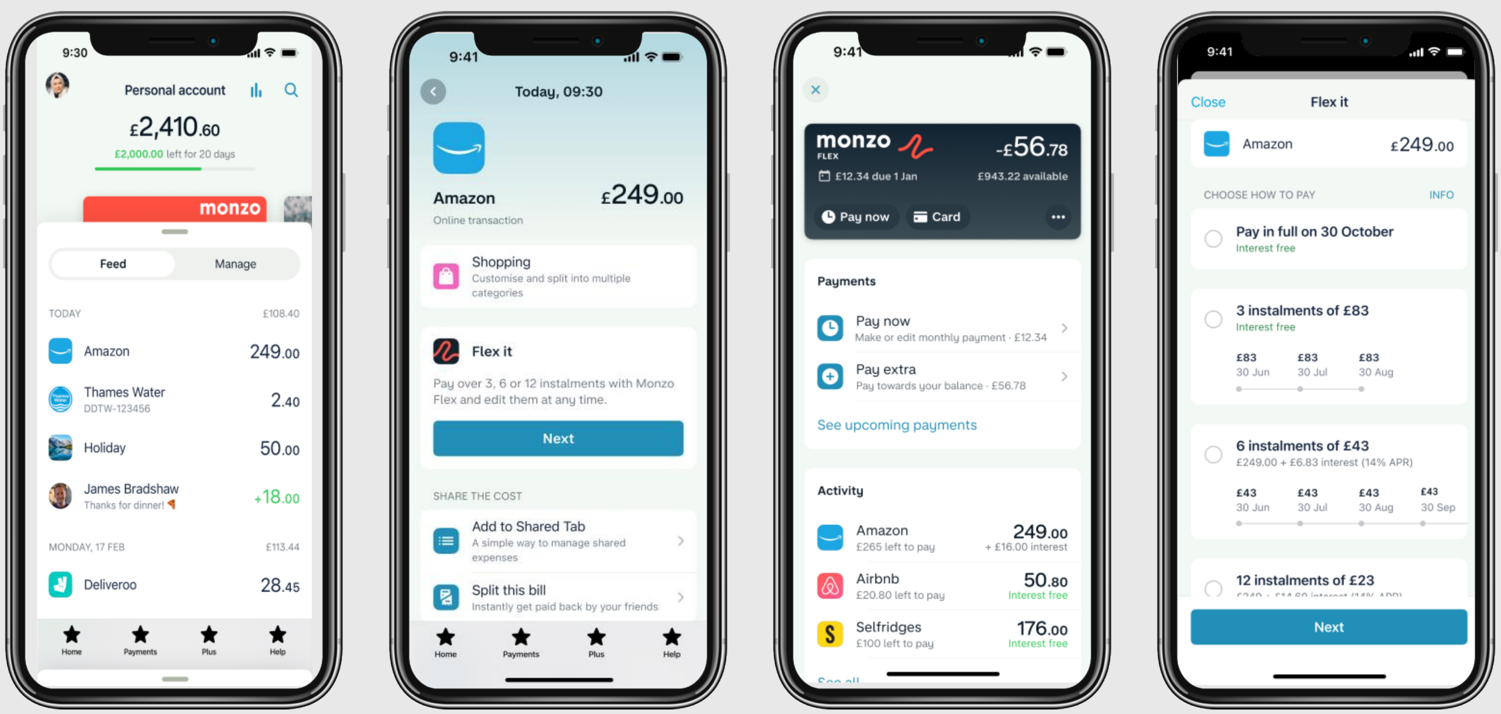


Figure 24 – Monzo Flex user experience for pre purchase. Sources: Monzo

Sources: Mastercard, Monzo Flex

5 Providing Credit in High Interest Environment

Consumer credit providers have seen their profitability impacted by high interest rates. Consumers are more conscious about cost of money and late payment costs

SUMMARY

A turbulent economy affected lenders growth

In a time of complex economic situation, lending providers have been hit hard by higher interest fees and rising inflation. For example, BNPL players have had a fall in revenues, increase in losses and reduction in new customers. Klarna lost value from 45.6 Billion USD to 6.7 billion USD in 2022 and costs were almost twice the value of operating income.

Lenders have seen loan approval rates decline due to rising costs and their customers worsening debt/income ratios.

Consumers go careful with taking on new debt

The uncertainty of the current economic situation have influenced consumers sentiment around taking on new debt due to the increased cost of money and interest rates. That potential fall in demand for loans or deferred payment solutions is also related to a general concern around the lack of transparency on how repayments are working and the sudden introduction or increase of late payment fees by BNPL players.

Expected market consolidation to cut down losses

In the BNPL industry, experts foresee that key players will take actions towards market consolidation and restructuring to make their business profitable. For instance, in 2023 Australian provider Zip abandoned under-performing markets, including the UK. Afterpay's EU counterpart Clearpay also ceased operations in Italy, France, and Spain as Block pulled out of Europe.

«Consumer credit markets will consolidate due to the current economical situation, there will be changes in the BNPL landscape»

Head of Revenue

The surge of BNPL Losses

Main reasons of BNPL Losses

Until 2020, BNPL companies experienced rapid growth and disrupted most European markets. To expand further, these companies made significant investments and incurred high administrative costs. In 2021, the major BNPL players decided to enter new markets, such as Klarna entering the US market, which required substantial investment and risk. In 2022 and 2023, the economic landscape changed significantly and have impacted the growth plans of BNPL players. As a consequence, BNPL losses increased dramatically. For Klarna, for instance, in 2022 costs were almost twice the value of operating income.

The main reasons behind the surge of BNPL losses in Europe are multi-faceted and interrelated, such as the high investment to scale BNPL business by entering new markets, the higher interest rates policy of central banks, the changes in consumer credit regulation to increase consumer protection and promote better BNPL transparency, the decline of credit approvals due to a worsening of consumer credit worthiness or the slow down of e-commerce.

Klarna has returned to some profitability since, but not all players in the BNPL space will be as resilient, such as for example Twisto.

International expansion but also cost of lending led to significant Income / Cost ration decline for Klarna

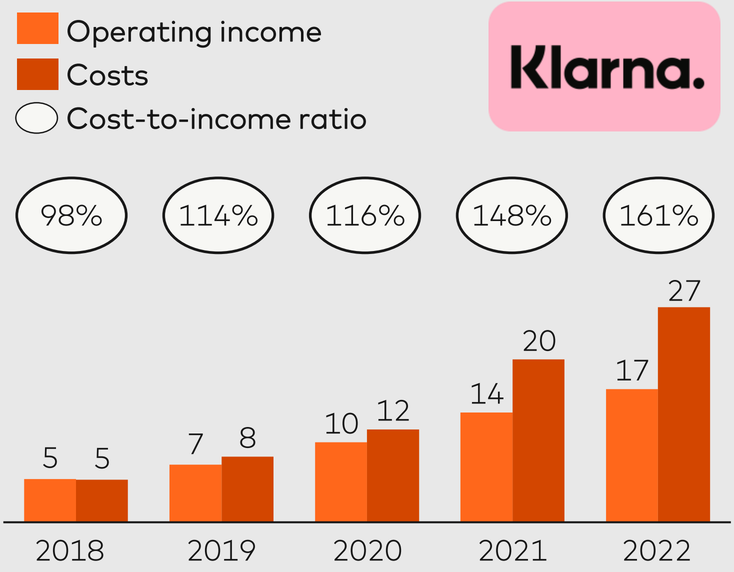


Figure 25 – Klarna Operating income and costs since 2018 in Billion SEK. Source: Klarna Financial Report.

> "Leading BNPL firms have struggled to find profitability. To overcome this, many have taken cost-cutting measures, including exiting Europe."
>
> Chief Strategy Officer

Main BNPL Player Losses since 2018

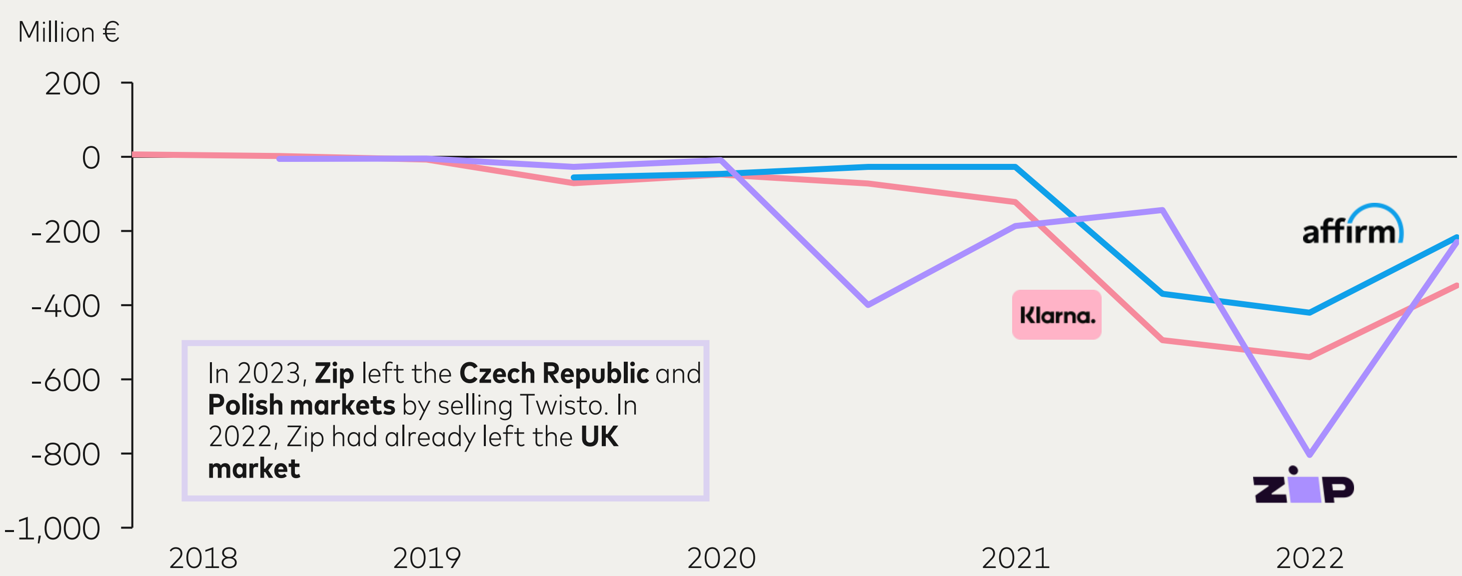


Figure 26 – Net loss from largest BNPL players. Source: Financial reports from companies

Sources: Company websites, Annual Reports, Financial reports

BNPL market fragmentation ripe for consolidation

A crowded market

BNPL market is extremely competitive, crowded and BNPL players struggle to differentiate their value proposition. Pricing is becoming the main driver to compete and win partnership with large merchants that drive the most volumes. Some merchants offer several BNPL checkout buttons, rather than for exclusive deals, resulting in the checkout page becoming quite messy.

In the UK, large merchants are typically partnering with 2 to 4 BNPL providers. However, in categories such as fashion, travel and retail number of BNPL options can be much higher. In addition, some merchants, such as, John Lewis, Tesco, Ikea, Argos have launched their own financing solutions to help customers pay in instalments.

New challenges for the future

In this highly competitive and fragmented market, new challenges arise for the future of BNPL. Price wars directly impact revenue erosion, customers face heterogenous BNPL user experience which weakens the checkout experience and consequently, sales conversion that was the core premise of BNPL may decline.

It appears, consolidation is unavoidable.

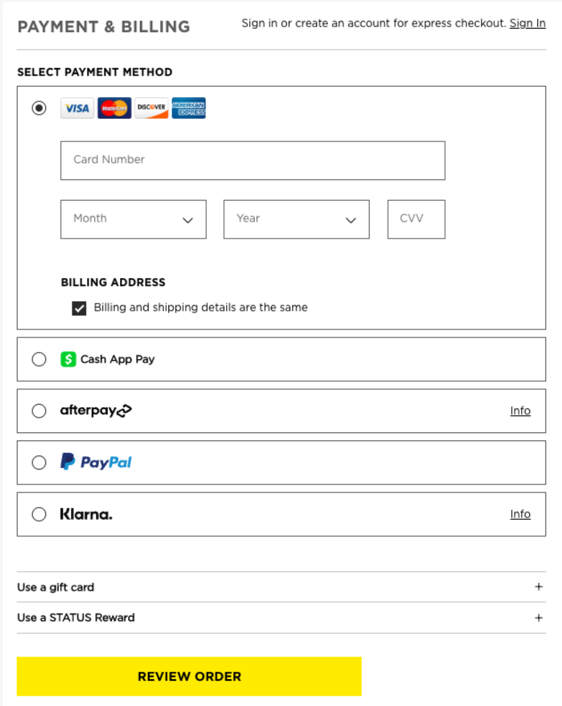


Figure 27 – Example of check out page of non disclaimed merchant with five payment options. Source: Public information online.

Very crowded & competitive BNPL space in the UK

Buy Now Pay Later providers for selected large merchants in UK

Merchants/BNPL providers	In House	Klarna.	afterpay	LAYBUY	PayPal	Zip	Others
Amazon	✓	✓	✓	✓	✗	✓	✗
Tesco	✓	✓	✗	✗	✗	✗	✗
John Lewis	✓	✓	✓	✗	✓	✗	✗
Sansbury's	✓	✗	✓	✗	✗	✗	✓
Asda	✗	✗	✗	✗	✓	✗	✓
Argos	✓	✓	✗	✗	✗	✗	✗
Deliveroo	✗	✓	✗	✗	✗	✗	✗
Just Eat	✗	✓	✓	✗	✗	✗	✗
Marks&Spender	✗	✗	✓	✗	✓	✗	✗
Airbnb	✗	✓	✗	✗	✗	✗	✗
Next	✓	✗	✗	✗	✗	✗	✗
Asos	✗	✓	✓	✗	✗	✗	✗
Tui	✗	✓	✓	✓	✓	✗	✓
British Air.	✗	✓	✓	✗	✓	✓	✓

Table 2 – Breakdown of BNPL providers for 14 of the largest merchants in UK. Source: Mastercard analysis.

Sources: Mastercard analysis using public information from 2023 on players websites

6 From Rewarding to Sustainability

Consumers have always loved cashback and miles. Is this the future as rising ESG awareness calls for sustainable spending?

SUMMARY

Cash back and miles, people love it
Rewards have been the most effective way to drive successful consumer engagement at every stage of the life cycle; in customer acquisition; activation or premium segment rewarding. Miles for spending has been one of the keys to long term success of Airline cobrands such as Lufthansa Miles & More or Amex British Airways. Cashback, almost extinct after interchange fees regulation, has been a massive success and customer acquisition channel for new UK market entry by Chase.

ESG rising in awareness
There is no question that miles and cashback drives customer decisions when paying. However, there is a new factor now that is increasingly at play and that is ESG. ESG is not a niche topic anymore and people across classes have a view and a stand. ESG is playing an important role in shaping customers decisions. Consumer interest in sustainability is growing, with many adopting a more sustainable lifestyle and making more ethical choices about how they live, travel and shop.

Ethic questions on how to encourage rewards
New voices are emerging raising concerns about stimulating buying and excess consumption. Is it ethical to support paying later with a financial incentive? That is a question that we are likely to hear more often when working on new customer propositions.

85%

of consumers are willing to take personal action to combat environmental and sustainability issues

62%

of people think it's important for companies to do more for the environment

Source: Mastercard Sustainability Report

Consumer Rewards

Consumers love rewards

A strong rewards proposition drives consumers engagement, makes the payment tool "top of wallet".
Interchange regulation reduced space for cash-back rewarding which has been very common across Europe prior to 2015.
Chase UK use-case is showing that cash-back can still work, at least short term (first 12 months) funded as customer acquisition.

«Rewarding credit spending is against our ESG principles»

Head of Payments

With increasingly larger proportion of European population worrying about the planet and causes in their neighbourhoods, we expect a shift from "getting" to "giving".

New concepts are around ESG

First movers that understand this customer concern are building new propositions around ESG and making the World a better place. Nexi, a major player in Italy, evolved their customer offering and shifted their proposition towards the cause of Sustainability in a truly holistic way.

Miles & More Lufthansa

- Miles Earning based on the travel class and continental / intercontinental
- Travel Insurance
- Lounge Access
- Annual Fee
- Welcome Bonus

CHASE

- 1% Cashback
- Round-ups with Interest
- APR on Current Account and Savings
- No fees or charges
- 24/7 Assistance
- Budgeting tools

BRITISH AIRWAYS

- Points on flights and card spending in brands coalition
- Travel Protection
- Purchase and Refund protection
- Global assist
- ID protection

nexi Sustainability engagement tools as a driver of value

Sustainable cards

Made of recycled plastic coming from Oceans.Nexi plans to launch 100% sustainable cards during the next 5 years

Carbon Tracking

The Carbon calculator integrated in Nexi App will enable cardholders to calculate the CO2 footprint generated from their payments

Donation options

Cardholders can offset the amount of CO2 generated donating in support of "Plastic Free"

Sources: Mastercard, Lufthansa, Chase, Nexi public information

7 Navigating Credit Consumer Regulations

Central banks and regulators have developed regulations to protect consumers and markets from damaging credit practices

Current consumer credit regulation is evolving, and it may impact significantly the future credit value propositions and business models. This is creating uncertainty in the market and banks are more conservative to take actions to launch new pay later products. Though, the 'wait and see' strategy may turn in the risk to leave space for the competition to grasp relevant

Consumer Credit Directive is being reviewed

The Consumer Credit Directive is currently being reviewed and once complete, EU countries will have to implement it into their national laws. One of the changes being made is to remove the exemption for lower value and interest free loans (including BNPL), but individual countries will have some flexibility to introduce changes to the rules. This might be that BNPL would become a credit regulated product.

The BNPL regulation in UK

The UK BNPL regulation will make specific changes to UK regulation and is going to create an entirely new custom-made BNPL regulation. Market is waiting for the publication of this new regulation. The Financial Conduct Authority (FCA), the English banking authority, indicated the need to regulate BNPL back in 2019, with the aim of guaranteeing adequate protection for online consumers. At the beginning of 2022 it requested that the contracts of the major BNPL providers be updated for greater consumer protection, primarily in terms of transparency and clarity of terms and conditions – such us late fees for delayed or missed payments.

New regulation creates uncertainty in the markets

Since, the CCD for EU or FCA in the UK have not yet published any new regulation, the wait is creating some uncertainty around the future impact the new regulation may bring for the BNPL industry and a stronger sense ~~of~~ for more responsible lending practices. It is expected that the new regulation will come with strong implications for BNPL players, and BNPL will be regulated along the same lines as credit card like products. Everything will depend on local regulators' implementation into their national laws.

"Countries in Europe are taking different steps to regulate or partially regulate BNPL."

European Legal Counsel

"The Consumer Credit regulation across the whole of Europe is currently being reviewed. One of the changes being made is to remove the exemption for lower value and interest free loans, but individual countries will have some flexibility to introduce changes to the rules."

European Legal Counsel

CHAPTER 3

So, who wins the Future of Credit?

40

THREE FACTORS

for a **successful consumer credit value proposition**

1

PAY LATER WITH GREATER FLEXIBILITY

Providing choice to customers and how they prefer to pay later, while staying in control of their finances

2

SAFER & FASTER ACCESS TO CREDIT

Simplify customers onboarding and make credit decisioning fast and smarter

3

ESG AS A DRIVER OF CUSTOMER VALUE

Integrate your ESG DNA into your product, empower your customers to act on causes and their financial health

1

PAY LATER WITH GREATER FLEXIBILITY

Value prop

- Providing choice to consumers to pay back later over time
- In full control of their finance and visibility of late fees
- Totally transparent and digital

Covered Consumer Pain Points

- Lack of transparency
- Simple and fast UX
- Flexible pay later options
- Full digital experience
- Visibility of instalment payments and fees

Consumers feel they are being offered limited options of how to use credit, and it is often not in a way that is most optimal for them. Between Debit and Credit there are many colours and flavours of Pay Later Flexibility that opens space for innovation.

Flex any payments

- Keep the shopping experience easy and seamless with no additional actions needed.
- With contactless and mobile wallets payments is so fast, people love it, why making it more complex?
- Offer to both debit and credit card customers a standalone instalments card, each purchase is installed over time by default. It is a simple and innovative way to delivery compartmentalised "softer" credit.

..or swipe from debit to credit

- Allow customers to change their mind after a purchase and instead of paying in full, providing them with a choice to pay back in equal instalments on their existing account/card.

Stay in-full control

- Manage all instalments in one single mobile app with full transparency.
- Providing payment flexibility with everywhere merchant, both online and in-store represents massive advantage for your customer.
- Enable to flex repayments, allowing to repay the outstanding balance in full and save on fees, or in contrast extend repayment deadlines when you need it for a clearly communicated nominal cost. How about an option to give a month 'holiday' to ease the pressure your valued customer is facing? This flexibility will help your customers better manage their monthly outgoings, feel in greater control of their finances and live more healthy financial life.

Bringing flexibility within card rails solutions

Figure 28 – Illustration of flexibility in payments of different card. Source: Mastercard Analysis.

Companies leading the way

Flexible lending within a fully digital solution that are transparent, simple to manage and offer pre or/and post purchase use cases

monzo Santander Virgin money

Challenges in leading the way

Offering a great pay-later flexible experience, in one app, real time brings several technological and operational complexities, such as:

- Providing a seamless user experience with few clicks in a simple way for consumers;
- Developing lending models that can re-evaluate and re-calculate in real time the repayment positions, incl. how much customer saves / pays more when moving repayment horizon;
- Implementing dynamic Instalments pricing for example based on instalment tenure;
- Accumulating multiple instalment plans and still allowing the customer to repay once a month on a date of their choice.

Partnering with specialised technological enablers, covering multi-faced elements with an end-to-end approach, can cut some corners in terms of experience (what works and what does not) and time.

"Greater flexibility will help consumers feel more in control of how they use credit."

Head of Issuing

"Providing flexibility is complex. Partnering with expert providers can help on the way."

Credit Manager

monzo

Monzo, a UK fintech bank with 8 million customers, is leading the way with their Monzo Flex solution:

- Fully digital experience of the entire value chain, from customer onboarding to repayments management
- Virtual or Physical card with a pre approved credit limit to pay in Instalments any purchases made instore and online
- Move any purchases made in the past 2 weeks on a Monzo Debit card to an instalment plan
- Full in app consumer management of instalments and including the ability to edit instalment periods and repay early
- Monzo develops all their app functionalities in-house

Have a look at Monzo Flex use case in Second Chapter *Unlocking payment Flexibility*

Santander launched Pagolisto in June 2023, in Spain. It is another use case of flexible lending by providing a standalone Instalment card, with dedicated credit line.

Episode Six, is a global cloud-based financial platform founded in 2015, that provides a ready-to-launch Instalment solution, enabling a full range of flexible pay later use cases (pre, post and at purchase).

E6 provide card issuer processing capabilities and payment APIs to cover the E2E product lifecycle, such as:

- Product configuration and payment integration
- Loans simulation, decisioning and creation
- Loans pricing, interest accrual
- Instalments account management
- Repayments and real time balances
- Card instant issuance and tokenization
- Payment processing, refund, reversal

2

SAFER & FASTER ACCESS TO CREDIT

Value prop

- Simple customer onboarding with faster and more robust credit decisioning

Covered Consumer Pain Points

- Quick and simple access to credit
- Simple enrollment process
- Fully digital experience
- Better credit decisioning

Providing credit decisions in hours, is not good enough. Delivering instant, effective decisions is the new frontier for credit granting, with simpler and faster customer onboarding. This is now a factor expected by every customer.

Instant Lending

To deliver quick and comprehensive digital responses to consumer credit demand is now a must. Lenders need to be able to satisfy the customer need immediately, addressing specific event: just before international flight boarding, just before renting a car, just before unexpected large amount purchase such as broken washing machine.

Simplified onboarding

New technologies, such as Open Banking and Artificial Intelligence, are providing new data inputs that make credit decisioning more accurate, avoiding turning away solid customers. Consumer Finance companies can access information from trusted third-party sources, requiring less information directly from the customer, as a result making the customer onboarding experience simpler and faster.

The Know Your Customer (KYC) process itself became so much smoother to new technology and multiple providers that entered this space. Complying with regulations by verifying identities in real-time using data, document and biometric authentication and having all this recorded and digitized real time opened new channels how to serve customers.

Creditworthiness innovation

Traditionally, financial institutions relied heavily on limited data sources, such as credit bureau scores, black-lists, and assessment of own information with existing customers. This often led to incomplete or inaccurate assessments, increasing the risk of granting credit to individuals who might not be able to repay their debts. Today, open banking opened-up a wealth of data sources, providing lenders with more comprehensive view of their applicants, who they are, and what is their liquidity across all financial products and obligations they hold.

> "Open banking is a perfectly fitting for some customer segments that do not have clear historical background, like freelancers with irregular income or young adults and foreigners with poor or no credit history."
>
> Head of Lending

Companies leading the way

Provides effective credit decisioning in near real time, with quick and simple customer experience

Pay Later | algoan | Taktile | HOME CREDIT

Challenges in the way

New technologies, such as Open Banking or AI are representing a huge promise for the consumer lending industry. To unlock the full potential of these technologies, there is still a need to reduce the lack of trust of consumers in sharing their financial data, including transaction history, income, and expenses, directly from their existing accounts to the other institutions. This for now still represents a hurdle for mass adoption. The consumer financing ecosystem will need to keep promoting collaboration between financial institutions and fintech companies, agreeing on common standards and data quality. On the customer side, the institutions will need to learn how to communicate clearly the benefits of customers sharing more about their financial standing.

From an operational perspective, credit issuers and lenders must adopt a proactive strategy of regularly assessing and pre-approving consumers for credit. This ensures that credit decisioning can be made near real time with high level of credit approval rates, without any unnecessary delays. Creating a new customer journey, or integrating Open Banking into an existing one, can be complex and time-consuming impacting back-office risk evaluation procedures and legacy systems, but it is an investment successful businesses will have to make.

During our interviews, it was often mentioned that Open banking is having a slow start, but everyone seemed confident in a strong growth and broad adoption in the years to come.

"As industry, we are far away to make credit onboarding a happy path experience."

Head of Direct Channels

"The next challenge for lenders is being able to offer contextual lending, in real time, digital and when consumer really needs."

Head of Lending

Algoan is France-based open banking fintech, founded in 2018. Algoan is one of the leading Credit Scoring API companies in Europe.

"Analyse customers' financial situation in a matter of seconds and make instant, effective decisions thanks to our solutions specially designed for credit granting."

Algoan

Algoan retrieves the financial data of its partners' customers to determine their financial profile based on their banking transactions. The customer authorises his bank to share banking information via the interface proposed by Algoan.

Algoan carries out a detailed analysis of the customer's income and expenses, as well as the evolution of his balance, to determine whether his financial situation allows to take on the credit requested. This decision is made instantly, which means the customer receives an immediate response to their request.

Main partners

Home Credit, founded in 1997, is a multinational consumer finance provider. They are focused on responsible lending to individuals with limited or no credit history, enabling customers to borrow easily and safely.

Home Credit focuses on making the loan application process straightforward. Customers can often apply for loans by providing minimal documentation and filling out simple forms. Instead of relying solely on traditional credit scoring methods, Home Credit employs a variety of alternative data sources and proprietary algorithms to assess the creditworthiness of applicants. Once the application is approved, customers can receive the loan amount almost immediately.

"We responsibly deliver trusted financial services that customers and business partner can access via their channel of choice."

Home Credit

3

ESG AS A DRIVER OF CUSTOMER VALUE

Value prop

- Integrate your ESG DNA into your product, empower your customers to act on causes and their financial health

Covered Consumer Pain Points

- Address uncertainty for the future
- Powering a brighter future
- Better tools for financial health
- Take actions in big causes

Rising ESG awareness among consumers calls for rethinking sustainability as a driver of value for customers.

ESG is not a niche topic anymore and people across classes have a view and a stand. ESG is playing an important role in shaping customers decisions. Consumer interest in sustainability is growing, with many adopting a more sustainable lifestyle and making more ethical choices about how they live, travel and shop.

ESG-centric value props

Looking at the next generation customers, rethinking the current banking benefits is a must for the consumer finance ecosystem. Banking institutions, lenders, BNPL players need to take into consideration how bundling their essential products with tools will help consumers to create a better planet, world and financial future. The card industry is already moving in this new direction. For example, replacement of plastic card with recyclable materials is expected from customers, and the youngest segment they take it for granted. Card payments usage can be the vehicle to track personal environmental impact, Recently most of the largest issuers introduced a carbon tracking tool in their banking app. This means allowing customers to view estimated carbon footprint for each purchase.

At the beginning of a new future

More is expected to come, when we think about planet health and financial health. We are at the beginning of a new frontier. Consumers are aware of this and are demanding a change. It is now up to the entire financial industry to integrate these new consumers values into the design of their commercial offers. Whoever is better today will earn the trust of tomorrow's consumers.

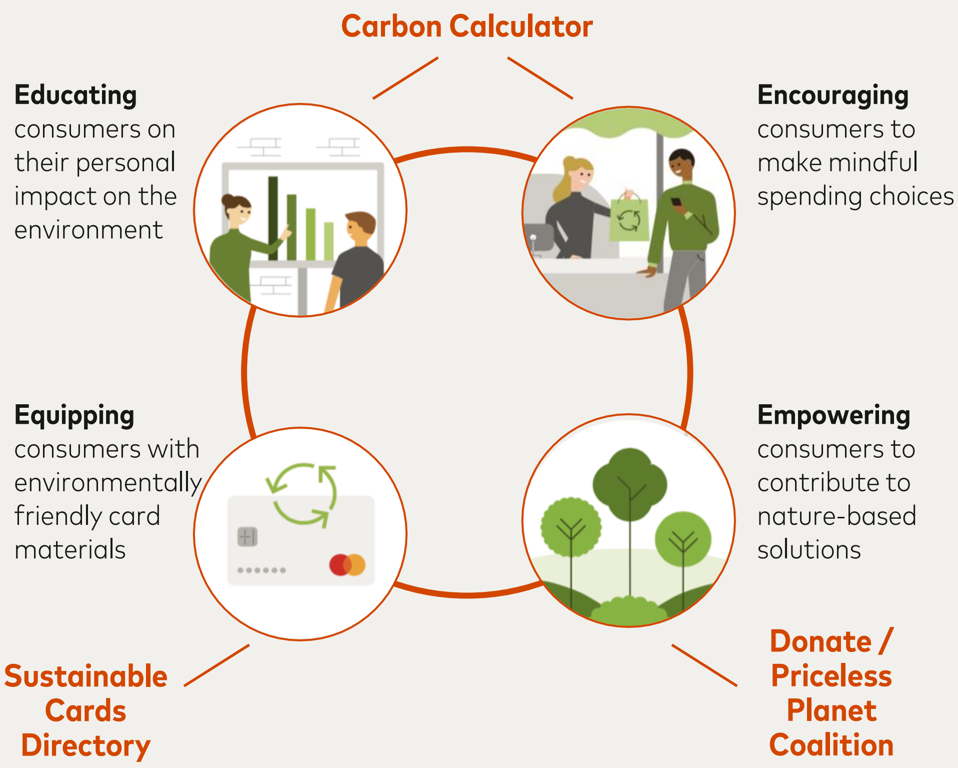


Figure 29 – Illustration of Carbon Calculator framework. Source: Mastercard Analysis.

Companies leading the way

Providing sustainability engagement tools as a driver of value

nexi | Gránit Bank | Dreams Technology (Part of Doconomy Group) | Doconomy | ekko

How to make sustainable propositions

Sustainable card material

More than 20 billion plastic payment cards are in circulation today. And each year, more than 6 billion cards are produced, many of which are made from PVC. Developing a sustainable card program using environmentally friendly, sustainable materials, can help address their impact on the planet. Financial institutions are already adapting sustainable card materials and in Europe 35% of Mastercard cards produced are sustainable. Focus should also be given to 'end of life' of cards. Recycling cards in an eco-friendly way, will make a further positive impact through environmentally friendly card life cycle practices.

Carbon tracking for Sustainability rewards programs

Financial institutions must educate consumers on their personal impact by encouraging them to make mindful spending choices. This means allowing consumers to view estimated carbon footprint for each purchase made across spend categories. Some credit card issuers offer rewards programs that allow consumers to earn points or miles for making environmentally friendly purchases. Carbon tracking APIs can be used to track these purchases and ensure that consumers are rewarded for their efforts.

Donate

Making microdonations as seamless as shopping can help retailers foster their ESG agendas and increase donor's retention rates (e.g. Round-up donations at check-out). Donations APIs can also be integrated with Carbon Tracking, and this can simplify the process of making donations based on our personal impact set by our carbon footprint.

Financial Health tools

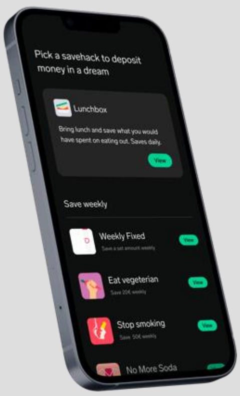
Only consumers living financially healthy lives care about bigger causes. Providing consumers with tools to manage debt, improve credit score and increase savings through roundups and micro savings is mission critical. Features such as budgeting tools and real-time notifications that can help people manage their money more efficiently, make informed financial decisions and plan their expenses better.

"We believe that environmental protection and business growth are not paradoxical."

Chief Sustainability Officer

Dreams Technology
Part of Doconomy Group

Dreams technology, part of Doconomy Group, is a Sweden based company funded in 2018, that provides an engagement banking platform for driving customer action through behavioural science. Savings are a critical component of achieving financial wellness, and new approaches can encourage consumers in sustainable living solutions. Their solutions support banks for example in creating saving habits for their customers, while reducing CO2 footprint. The Dreams Technology main solutions are:



Saving
Empower, inspire and reward users to save for later

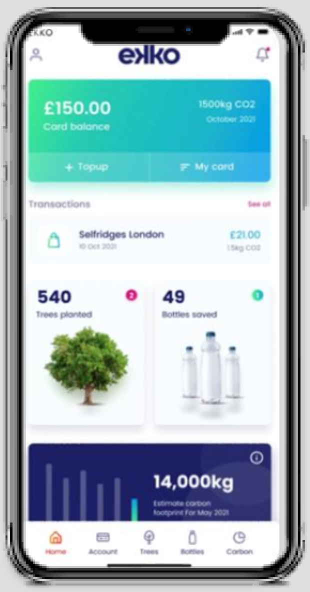
Investing
Help people become investors and existing investors to invest smarter

Sustainability
Save with sustainable save hacks and reduce carbon footprint

Debt Management
Make debt management action-based and effortless

ekko
powering the enviroconomy

Ekko, a UK fintech, is an API-platform can be plugged into banks, card issuers or payment to provide real-time carbon footprint tracking on consumers purchases and bespoke propositions to support customers causes.



CHAPTER 4

The only choice is to evolve

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Conclusion

Consumer credit is here to stay.

Despite the current economic turbulence, employment rates have remained high and although customers continue to avoid high interest revolving credit rates, Consumer credit continues to play an important role in consumer finance perhaps in different shapes and forms, but the need for it remains both in good and bad times.

Lack of funds will always have to be funded somehow and overdrafts, consumer loans, BNPL, credit cards and other forms of credit will need to continue to fulfil this need.

Change is a certainty in Credit

While traditional card payment markets are expected to continue growing in the future, new important challenges will come, for example alternative payment methods, such as digital wallets, which are expected to be dominant as the preferred online checkout payment option. Consumers will adapt to those changes, and they will expect that their trusted banks will be there to support and meet their new needs.

Competition coming from non-bank players will leverage market uncertainty, by grasping potential opportunities, and threatening to capture traditional credit card flows by offering alternative convenient and simpler solutions.

Banks and established financial players are well positioned to better navigate turbulent times, and better equipped to implement future consumer credit regulation. They are also better suited to sustain the pressures from rising cost of money, leveraging their natural advantage – deposits. In-spite of these advantages, they need to act fast to restrict competitors and avoid missing the BNPL train

Pay later flexibility is the future

Going back to credit basics while bringing in new innovation is the way. It sounds simplistic but this is the prerequisite for simple, transparent yet financially sustainable pay-later solutions customers need. A mix of credit offerings on the border between debit/checking account and credit/credit card represents an untapped opportunity that we expect banks to address making it a market standard. In case they don't customers will look elsewhere for alternatives – directly impacting the incumbents bottom-line. It needs to be simple, fast and transparent for the customer. Only then can banks compete with BNPL.

Hurdles for 'new to credit' remain

Some customer segments, especially the young, remain skeptical to credit. They are scared to manage it, or to be declined when applying for it. There is a role for Banks and Consumer Finance providers to simplify access to credit, relying more on the new available technologies such as Open Banking or Artificial Intelligence. Simpler and faster customer onboarding, with better and trustworthy credit decisioning will be the winner.

'Get' or 'Give' as the driver of customer engagement

Spend-based rewards, such as cashback or miles, have long been the most effective way to drive consumer engagement.. With ESG gaining momentum, and with that conscious consumption-gaining awareness, ESG is playing an increasingly important role in shaping customers decisions and becoming a new factor driving differentiation of any financial proposition including credit.

In summary, credit is and will remain an attractive, profitable and exciting space ripe for innovation. Customers will continue to need it from day-to-day financing to larger one-off purchases. The market is and will be there, the opportunity is considerable.

We hope this report will help you grasp it.

Glossary

Term	Definition
A2A	Account to Account
AI	Artificial Intelligence
API	Application Programming Interface
APR	Annual Percentage Rate
APM	Alternative Payment Methods
AT	Austria
Bn	Billion
BNPL	Buy Now Pay Later
CCD	Consumer Credit Directive
CH	Switzerland
CPI	Consumer Price Index
CZ	Czech Republic
DE	Germany
DK	Denmark
E2E	End to end
EA19	Euro Area 19 countries
ECB	European Central Bank
ESG	Environmental, Social, Governmental
EU	European Union
EUR	Euro currency
EWA	Earned Wage Access
FCA	Financial Conduct Authority
FI	Finland
FR	France
GEV	Gross Euro Value
GR	Greece

Term	Definition
H	Half
IT	Italy
IR	Ireland
KYC	Know Your Customer
KPI	Key Performance Indicators
LSE	London School of Economics
MCC	Merchant Category Code
Mn	Million
NFC	Near Field Communication
NL	Netherlands
PL	Poland
POS	Point of sale
PT	Portugal
RO	Romania
Q	Quarter
QR code	Quick Response Code
SE	Sweden
SRI	Social Responsible Investing
Trx	Transaction
UK	United Kingdom
US	United States
USD	United States Dollar
UX	Uxer Experience

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Thank you.

We thank all market leader participants for their generous contributions.

We want thank you as reader and we look forward to continuing this discussion with many of you.