

# Swiss Payment Monitor 2019

How does Switzerland pay?

swisspaymentmonitor.ch







### **Foreword**

While the Swiss payment market has developed only slowly over the years and cash has been the main means of payment for many, there has been some movement in recent times - partly due to the increasing internationalization and digitization of the means of payment market. As a result, new providers are constantly entering the market, competing with innovative cashless offerings for buyers and market shares and softening existing structures. At the same time, the diversity on offer is constantly creating new needs and thus leading to a shift in market conditions, which strengthens the role of the consumer. The extent of the change is difficult to assess at this point in time. However, it is becoming increasingly clear that the future of payment will be cashless.

For several years, the Swiss Payment Research Centre (SPRC) of the Zurich University of Applied Sciences (ZHAW) and the Executive School of Management, Technology and Law (ES-HSG) at the University of St. Gallen have been independently looking at issues related to the topic of «payment» from different angles. The increasing dynamics of the market have prompted the ZHAW and the University of St. Gallen to conduct a major joint research project to investigate the payment behaviour of the Swiss population and the underlying motives as well as their development over time.

This is the second edition of the annual Swiss payment survey, which combines the consumer perspective with the macroeconomic view. This report is based on the 2018 survey, which interviewed a total of more than 1000 people aged between 18 and 65 from all three regions of Switzerland. The study is financially supported by the Swiss Payment Association (SPA) as well as industry partners Concardis and Worldline/SIX Payment Services.

We wish you an interesting read!

Bettina Gehring, Sandro Graf, Dr. Tobias Trütsch

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# I. The most significant findings from the Payment Monitor 2019

#### Debit card is the most popular means of payment

The debit card is extremely popular with the Swiss. Not only is it rated clearly as more likeable, practical and trustworthy than other means of payment, but it also ranks in first place, accounting for 29% of total expenditure. This popularity is due not least to the introduction of the contactless function, which is particularly popular with the vounger public.

Nevertheless, very few people currently want to do without cash completely. Therefore, in terms of the number of transactions, at 48% cash is still the most widely used payment method in Switzerland; most people indicate that they have at least a small amount of cash in their wallet or trouser pockets.

#### Payment preferences are situation-dependent

Amount, place of payment and payment situation (brickand-mortar retail or Internet shopping) have a significant influence on the choice of a means of payment.

While cards are now used for the majority of amounts totalling CHF 20 or more, small amounts below this value continue to be paid predominantly in cash. The main reasons for this are primarily social norms («small amounts should be paid in cash»), force of habit, high practicability and the possibility of «getting rid of coins».

With regard to the place of payment, card payments dominate in high-turnover retail. Compared with other forms of payment, cash is much more commonly used in restaurants and bakeries, as well as at external sales points (kiosks and takeaways). In contrast to debit cards, which are used in highly versatile ways across various spending categories, credit cards are mainly used in restaurants, for leisure activities, at petrol stations and when travelling.

#### The hybrid payer as the largest segment

In addition to rational principles, payment is often also a question of personal preference. Payment decisions between persons can vary accordingly. Pure cash payers or card payers are generally outnumbered, while a large proportion are mixed payers and prefer different means of payment depending on the payment situation and amount.

#### Saturation in the awareness of contactless and online payments

In addition to traditional means of payment such as cash, debit cards and credit cards, new forms of payment such as contactless and mobile payment are also well known among the Swiss population. With values in excess of 90%, the saturation limit in terms of awareness has now been reached, especially for contactless payment methods and online and Internet payment methods (such as Sofortüberweisung or Twint).

#### Mobile payment does not equal mobile payment

There is currently no uniform public understanding of mobile payment. The term is most strongly associated with payments in an app with an integrated payment function (so-called «in-app» payments), payments with the mobile phone on the spot in a retail shop or at the point of sale (POS) as well as payments with the mobile phone

#### I. THE MOST SIGNIFICANT FINDINGS FROM THE PAYMENT MONITOR 2019

on the Internet or in an online shop. Compared to 2018, respondents perceived a shift from mobile payments as «local payments» (POS payments) to «remote payments» (distance payments).

#### **Contactless payment continues to increase**

Although contactless payment still tends to be perceived more negatively than the traditional means of payment of cash, debit cards and credit cards due to various security concerns, it has become considerably more attractive than in the previous year. In this context, contactless payment by debit card, which is especially popular with young adults, is a particularly popular means of payment.

The improved attitude is also reflected in the use: Measured in terms of the number of users, there was a considerable increase in contactless payments compared to the previous year, with contactless payment by debit card growing disproportionately faster than contactless payment by credit card during this period. The former has by now passed the 50% mark. Thereby, the levelling of contactless payment by debit card and credit card observed last year continues. By the end of 2018, 95% of credit cards and 71% of debit cards were already equipped with the contactless functionality.

#### Mobile payment is on the rise

At present, mobile payment methods are still used comparatively cautiously, but here, too, a change is emerging and the market is gradually shifting. Overall, mobile payment is rated significantly better than in the previous year, which

in turn is reflected in a rapid increase in usage. Although this trend applies to all forms of mobile payment, clear differences can be observed between the individual application variants. While «in-app» payments and mobile payments on the Internet are already widely accepted by the population, peer-to-peer and POS solutions have not yet established themselves in everyday life. In the respondents' perception, mobile payment in brick-and-mortar retail, which is often criticised as «unnecessary», «slow» and «unreliable», comes off worst in this context.

At present, cryptocurrencies and payments with «wearables» still play a subordinate role.

#### Contactless and mobile payment methods still have potential

The potential of new payment methods is far from exhausted. Accordingly, three out of five people could imagine using contactless payment within the next three years (even more frequently). As a result, the utilization potential of debit cards is significantly higher than that of credit cards, which is probably due to the increase in contactless debit cards from 2015.

The intention to use mobile payment is comparatively even higher. Here, the highest potential is attributed to mobile payment on the Internet, closely followed by «inapp» solutions.

#### Insufficient information relating to charges

The survey results make it clear that there are sometimes considerable information deficits with regard to financial

#### I. THE MOST SIGNIFICANT FINDINGS FROM THE PAYMENT MONITOR 2019

issues and that it is difficult for individuals to assess the charges incurred by buyers in connection with card payments. This knowledge gap is most obvious in connection with Internet transactions using debit and credit cards abroad. In these cases, around one third of all respondents wrongly assume that the transaction is free of charge for the payer.

#### No uniform understanding of security

Security is regarded as one of the most important criteria in the choice of means of payment. As the results of the current study show, however, there is no uniform understanding of security, but rather the term is interpreted very differently in the perception of the respondents.

Many respondents associate security in connection with payment methods with protection against data manipulation, data confidentiality and protection against unauthorized access. Also relevant is the correct and reliable execution of the payment order and control over the payment process and transparency of expenditure. In many cases, security is also regarded as a basic prerequisite, without whose guarantee the use of a means of payment would not even be considered.

In general, it should be noted that the concept of security is understood more holistically by the respondents and that here the focus is less on preventing the cause of damage (e.g. theft of the card) and more on safeguarding the resulting consequences (e.g. financial loss).

According to the respondents, the security of the individual means of payment is generally assessed as mediocre. This applies both to security against financial damage and in connection with the protection of personal data. Compared with the traditional means of payment of cash, online transfer (e-banking) and payment by debit or credit card in the conventional way (by inserting into the payment terminal), which tend to be at the upper end of the security scale, contactless and mobile payment methods are currently perceived as being significantly more risky.

### II. Study design

The goal of the Swiss Payment Monitor is to provide a comprehensive overview of the Swiss payment landscape from various perspectives. By combining a variety of research methods, this long-term study gathers data annually to offer an integrated approach to the payment method market, enabling a documentation of new developments as well as a report of relevant trends over time.

The study encompasses two parts: the micro-perspective consists of a standardised online survey with questions concerning payment behaviour in general and a payment journal that participants are asked to complete; the macro-perspective is based on an analysis of publicly available data on the electronic payment transactions of the Swiss National Bank (SNB) (cf. Fig. 1).

#### Micro-perspective

The micro-perspective reflects the consumer perspective and summarises the payment habits as well as the perception and attitudes of the Swiss towards various forms of payment.

As part of the second implementation of the Swiss Payment Monitor, a total of 1011 people aged between 18 and 65 from German, French and Italian-speaking Switzerland were interviewed from a micro-perspective.

#### ONLINE SURVEY

The first step asked participants to answer online questions regarding the topic «payment». The focus here was primarily the participants' self-awareness and the assessment of various aspects of their payment behaviour. The survey took about 25 minutes to complete and was implemented in stages during the second half of October 2018.

#### 1. Online survey

The participants answer online questions on the following topics:

- Payment methods available (incl. cash)
- Awareness of other (more common and newer) payment forms
- Perspective of or attitude towards different means of payment/ payment processes
- Criteria for payment method selection
- Future usage intention of innovative payment methods
- Financial literacy in general and with regard to means of payment
- · Security aspects
- Micropayments
- Charges
- Compiling a user typology based on socio-demographic and psychographic information

#### 2. Journal entry data

The participants document their payment behaviour in the form of a journal over a period of 7 days.

- Use and frequency of payment methods
- Time of transaction (day of the week, time of day)
- Amount
- Payment situation (on the spot/ distance) and location (domestic and international)
- Purpose of payment/type of expense (e.g. food, clothing, transportation costs, etc.)
- Payment method (contactless, etc.)
- Acceptance of cashless means of payment
- · Cash withdrawal/cash in hand

#### 3. Analysis of SNB data

Compiles, updates and interprets publicly available data on electronic payments by the Swiss National Bank.

- Number of means of payment
- Transaction frequency and sales
- · Domestic and national principle
- Face-to-face and distance business
- · Development in recent years

Attitudes, user reasons and trends

User data

General

Micro-perspective

Macro-perspective

#### PAYMENT JOURNAL

At the end of the online survey, participants document their payment behaviour in the form of a journal over a period of 7 days (cf. Table 1). Accordingly, participants were asked to record all payments made throughout the course of the day—with the exception of recurring expenses—and

Fig. 1

#### II. STUDY DESIGN

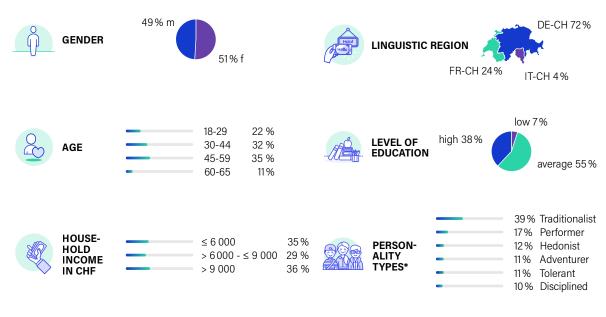
to classify these using predefined characteristics. Compared to the online survey, the focus here was primarily the participants' actual payment behaviour and, based on this, any variance in behaviour as stated in the first part of the survey. The payment journal could either be filled out online or using the app, which facilitated the timely recording of transactions after purchase.

The study participants were recruited via the «intervista Online Access Panel». In order to ensure the representativeness of the sample, the selection of participants was based on the quota system of the previously defined criteria of (linguistic) region, gender, age and educational level. Following the survey, data were adjusted and weighted according to the structural characteristics in the Swiss population (cf. Fig. 2).

#### **Macro-perspective**

The macro-perspective pertains to the entire economic scope and documents payment transactions on an aggregate level based on the publicly available data from the Swiss National Bank (SNB) until the end of 2018. It provides unaltered representation of cashless payment transactions in Switzerland and with Swiss payment cards abroad; both the number and turnover of cashless payment transactions are taken into account. Furthermore, it provides information regarding effective cash withdrawal using payment cards.

#### SAMPLE OF ONLINE SURVEY AND JOURNAL



\* based on limbic® types

Fig. 2

Overview of payment journal	
Duration of journal entries	7 DAYS
Number of completed journals	653
Volume of sales	CHF 350,552
Volume of transactions	6,733
Average number of transactions a week per person	10.3
Average number of transactions a day per person	1.5
Average amount due per transaction	CHF 52.06

Table 1

# III. Recognition and image of payment methods

#### Popularity of payment methods

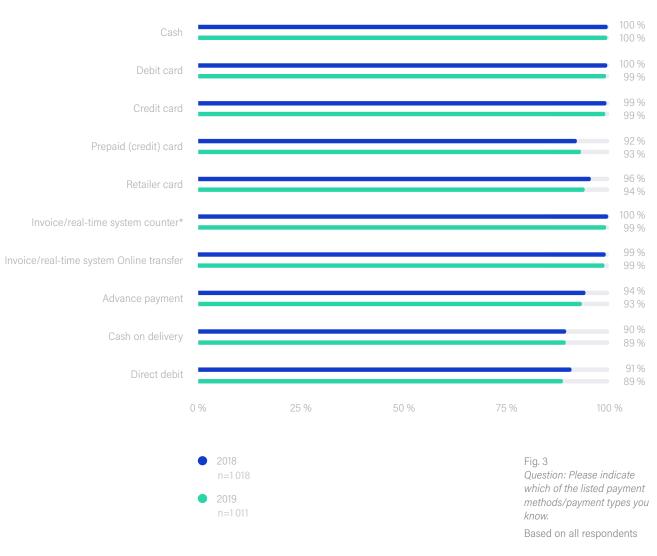
In addition to the traditional payment methods of cash, debit cards and credit cards, newer payment methods such as contactless and mobile payment as well as Internet payment methods such as Sofortüberweisung or Twint are well known (cf. Figs. 3 and 4). For example, 96% of respondents stated that they were familiar with contactless payment by credit card, while 94% said that they had reached the saturation point for contactless payment by debit card.

Likewise revealing a strong presence with values of 99% and 89%, respectively, are online payments by credit card and debit card as well as Internet payment methods, which 9 out of 10 people are familiar with.

94% of respondents are currently familiar with mobile payment in brick-and-mortar retail («Proximity Mobile Payment»), while 92% of respondents are familiar with mobile payment via an app with integrated payment function («inapp» payments) and mobile payment online («Remote Mobile Payment»), which in the case of the latter corresponds to an increase of 4.6 percentage points (hereinafter referred to as PP) over the previous year.

Somewhat less common, but on the rise, are peer-to-peer solutions such as PayPal or Twint for sending or receiving money at 81% (plus 8.1 PP compared to 2018), cryptocurrencies at 80% (plus 3.9 PP compared to 2018) and wearable payments at 45% (plus 5.1 PP compared to 2018).

#### AWARENESS OF CONVENTIONAL PAYMENT INSTRUMENTS



<sup>\*</sup>Values not comparable with previous year, as query changed

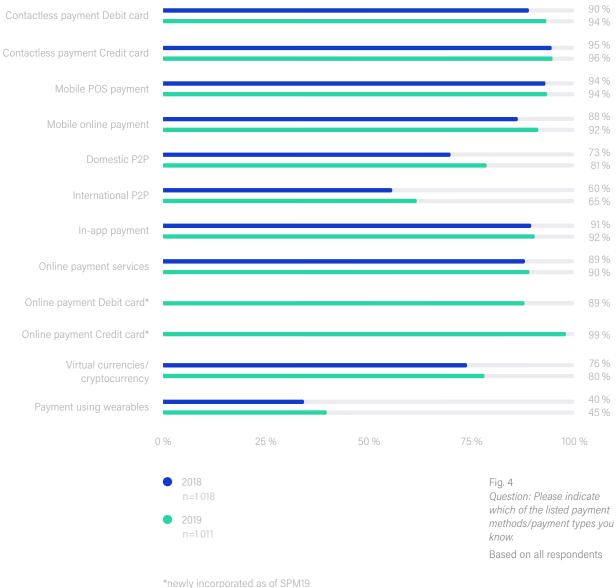
#### III. RECOGNITION AND IMAGE OF PAYMENT METHODS

#### **Attitudes toward payment methods**

The most popular means of payment among Swiss people is the debit card (Maestro card, PostFinance Card/Postkarte, V PAY) (cf. Fig. 5). It received clearly more positive ratings than the credit card across the majority of the dimensions (appeal, reliability, trustworthiness, transparency and controllability of the payment process as well as expenditures, costs, acceptance at points of sale and security). In addition, it is considered to be significantly more practical, attractive, faster and forward-looking than cash.

While attitudes to cash essentially remained constant compared to the 2018 measurement, the attractiveness of the credit card declined significantly in the course of the year. Thus, credit card payments are considered significantly less reliable, less trustworthy, with a lower overview of expenditure and lower acceptance at the points of sale than in the previous measurement.

#### AWARENESS OF NEWER PAYMENT INSTRUMENTS



#### III. RECOGNITION AND IMAGE OF PAYMENT METHODS

Although newer payment methods such as contactless or mobile payment tend to be perceived more negatively than the conventional means of payment of cash, debit card and credit card due to various security concerns, respondents' perceptions are gradually changing. Accordingly, the differences across almost all dimensions are significantly smaller than in the previous year. Contactless payment by debit card currently enjoys the greatest popularity, closely followed by mobile online payments and «in-app» payments. At present, mobile payment at a brick-and-mortar point of sale, which is criticised as «unnecessary», «slow» and «unreliable», is the least popular form of payment.

It should be noted that the rating from non-users of these means of payment is significantly lower than from users.

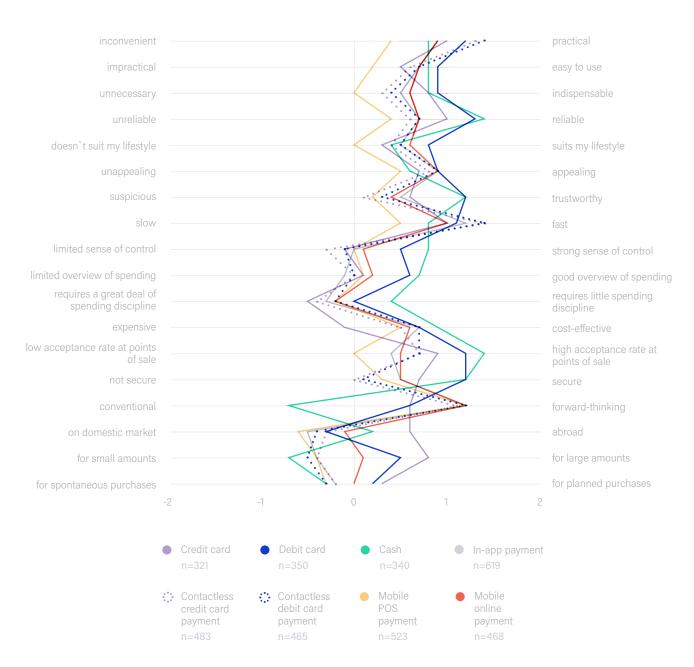


Fig. 5 To what extent do the listed descriptions/characteristics meet your expectations of «payment methods»?

Based on people who are familiar with payment methods; random selection for cash, debit card and credit card

### Focus on security

According to the Swiss Payment Monitor 2018 (Gehring, Graf & Trütsch, 2018), security is one of the most important criteria in the choice of means of payment. Among other things, the present study has now examined in depth what exactly «security» means from the point of view of the respondents and how they assess different means of payment with regard to different security aspects.

As the results of the study show, the respondents' perception of security is complex and extremely multi-layered, as can be seen from the large number of different mentions in connection with the personal meaning of the term «secure payment». It is therefore accordingly demanding to address security needs in a way that is appropriate for the target group.

Many respondents associate security relating to means of payment with *data integrity* (in the sense of the correctness/integrity of the data) and *protection against data manipulation* as well as *confidentiality of the data* and *protection against unauthorized access.* 

The correct and reliable execution of the payment order is also relevant, albeit lagging some distance behind the first points. These criteria correspond to the generally recognised protection objectives of information security.

In line with the results of the Swiss Payment Monitor 2018, for many respondents (126 citations) secure payment is also a necessity that must be met in order for the means of payment to be considered for use.

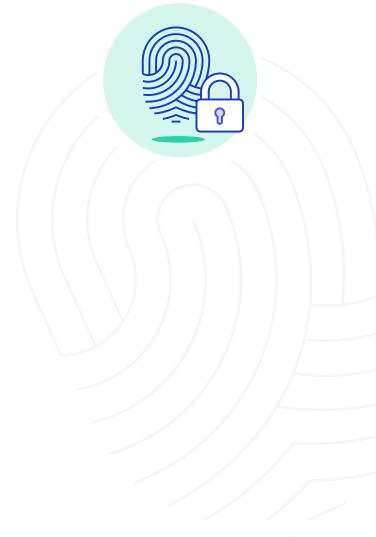
Overall, it should be noted that the concept of security is understood more holistically by the respondents and that the focus is less on preventing the cause of damage (e.g. theft of the card) and more on safeguarding the resulting consequences (e.g. financial loss). As far as the security assessment of the individual payment instruments is concerned, this is generally in the middle range. This applies both to security against financial damage and in connection with the protection of personal data.

With regard to financial damage, the most secure assessment is an average value (AV) of 4.3 on a scale of 5 for paper or e-bill payment by online bank transfer (e-banking), followed by debit card and credit card payment (AV 4.1) at a brick-and-mortar point of sale.

This is followed by cash (AV 3.7), which ranks higher than credit card payments on the Internet (AV 3.4).

In contrast, contactless payment with debit and credit cards (AV 3.3 and 3.2, respectively) and mobile phone payments in face-to-face and distance business (AV 3.2 and 3.3, respectively) are considered to be comparatively riskier.

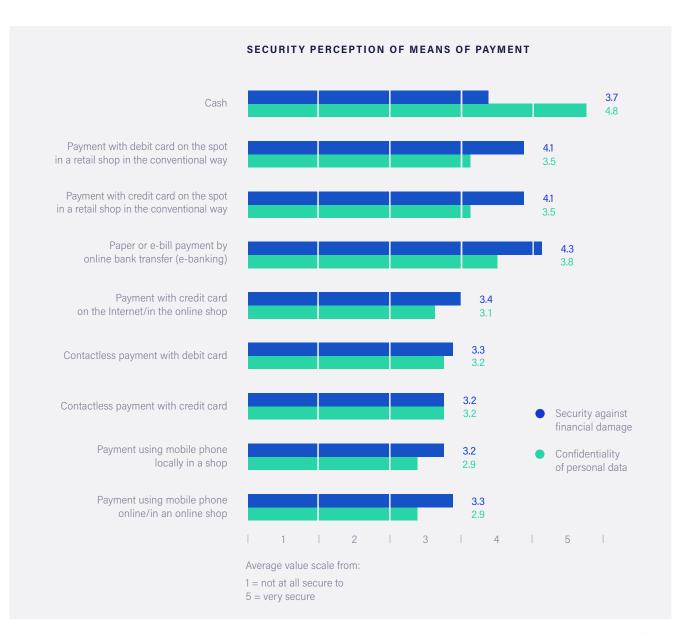
The situation is similar with regard to the confidentiality of personal data, but in contrast to the financial loss, cash is the most important in the evaluation sequence with an average of 4.8. In second place is e-banking (AV 3.8), followed by conventional payment by debit and credit card in brick-and-mortar retail in third place (AV 3.5).



### **Focus on security**

By comparison, contactless payment and payment by credit card in online shops with values of around 3 are rated as significantly less secure. With an average value of less than 3, mobile payment at the POS and on the Internet is even perceived as insufficient.

What is striking here is that there is little difference between debit and credit card payments in terms of security assessment from the respondents' point of view, although the credit card is much better secured via chargeback options and security guarantees. This suggests the assumption that these services are too little known to the population.



## IV. A look in your wallet

#### Cash withdrawal and on-hand cash

The Swiss still see cash as indispensable. This is seen in the wallets of Swiss men and women (cf. Fig. 6): Most people still carry at least some cash in their wallet or pockets, the average is CHF 80. Only 2% state that they do not carry any cash at all. These figures have not changed significantly compared with the previous year.

There are socio-demographic differences that can be observed regarding the possession of cash: For example, with an average of CHF 100, men carry significantly higher amounts of money than women (median CHF 60), but at the same time men also state much more frequently that they have no cash in their wallets or pockets. Risk-averse people and the elderly in particular also value cash, which likewise indicates that, among other things, people 45 years and older have significantly more ready cash than younger people.

#### THE AVERAGE SWISS...

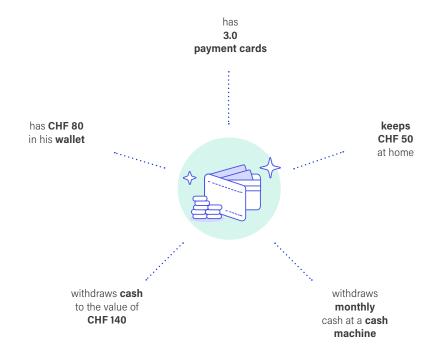


Fig. 6

Note: The average value is based on the median.

#### IV. A LOOK IN YOUR WALLET

Aside from cash, most Swiss people own multiple payment cards (cf. Fig. 7). For example, 85% of respondents have a credit card and 83% a debit card. 1.5 credit cards and 1.5 debit cards are attributed to one owner of the corresponding payment cards. In addition, the respondents have an average of 1.9 retailer cards with payment function (Globus card, MyOne card, etc.). Men as well as those with higher household gross incomes usually have more credit cards than women and those with lower incomes.

Furthermore, a look into digital wallets shows that twothirds of respondents said they had installed an app with an integrated payment system on their phones (e.g. iTunes, PayPal App, SBB Mobile App), with those under the age of 45 having considerably more of these apps. Furthermore, two out of five people indicate that they have one or more paid apps (e.g. Apple Pay, PayPal, Twint) on their smartphone, with an average of 1.2 such apps installed.

Compared to women, men typically have considerably more pay apps installed on their smartphones and are significantly more frequently in possession of newer payment methods (e.g. cryptocurrencies).

#### PAYMENT METHODS AVAILABLE

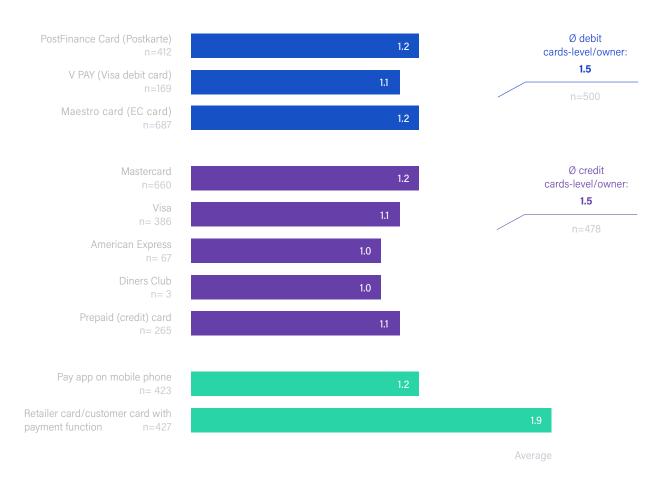


Fig. 7 Question: Which of the listed conventional methods do you personally own? Please indicate the respective number.

Based on forms of payment that the respondents know: only the owner of the corresponding payment method

### V. Payment behaviour

#### Different payment types

The payment market is very heterogeneous. There are many different payment processes and providers, at the same time, however, there is a broad spectrum of diverse user preferences. Here, pure cash or card payers are generally outnumbered, and a large proportion (42%) of people are mixed payers, which is often reflected in hybrid purchasing behaviour (cf. Fig. 8).

Typical cash payers are generally over 45 years of age, value security and have a traditional mindset. They tend to be sceptical about innovations (e.g. new forms of payment) and only use new technologies when they become unavoidable.

The majority of debit card payers are generally women between the ages of 18 and 44. They are often risk-averse and appreciate the familiar, but principally are more open to new options than cash payers. New technologies are essentially adopted subject to the condition that other people also use them and have good experiences with them.

The classic credit card payer is predominantly male, over 30 years old, has a good level of education and a higher income. He is highly performance-oriented, extroverted, a risk-taker and likes to try new things.

The mixed payer is usually male as well, spread over all age groups and coming from different social classes. These are primarily open-minded, rather extroverted personalities with a certain tendency to take risks.

Compared to 2018, there was a clear shift from predominantly\* cash and credit card payers (minus 3.8 PP or 2.9 PP) to predominantly debit card payers (plus 8.6 PP, significant difference).

CASH **PAYERS** 18% pay using cash in more than 75% of cases

**DEBIT CARD PAYERS** 28% pay using debit cards in more than 75% of cases

CREDIT CARD **PAYERS**  $| \bigcirc$ 12% pay using credit cards in more than 75% of cases

MIXED **PAYERS** 42% pay using different methods depending on the situation

Fig. 8

In particular, predominantly cash-paying persons are convinced advocates of their preferred means of payment. They award much more positive ratings than for the other payment types. In the case of card payers, however, no such marked preference is discernible.

<sup>\*</sup> Payer paid in over 75% of cases with the corresponding means of payment.

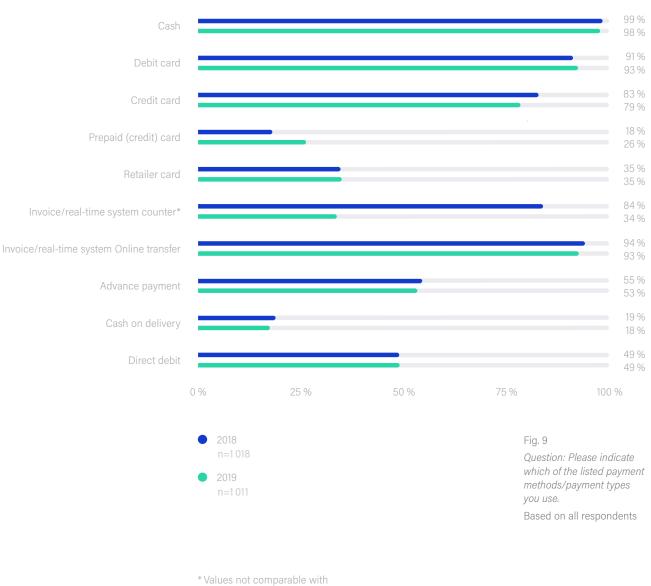
#### Payment behaviour according to self-assessment of respondents

While most means of payment are already well known, there are significant differences in how they are used (cf. Figs. 9 and 10).

According to the self-assessment of the respondents, the most common methods, besides cash with a 98% usage share, are generally online bank transfers (e-banking) and debit cards with 93% each, followed by online payments by credit card with 86%, credit card payments in general with 79% and «in-app» payments with 63%.

A good one in two also uses Internet payment methods (56%), advance payment (53%), direct debit (49%) and contactless payment methods, with contactless payment by debit card (50%) and credit card (54%) gradually converging. Due to its high practicability and low costs, the contactless debit card is enjoying increasing popularity, especially among young adults.

#### **USE OF CONVENTIONAL PAYMENT INSTRUMENTS**



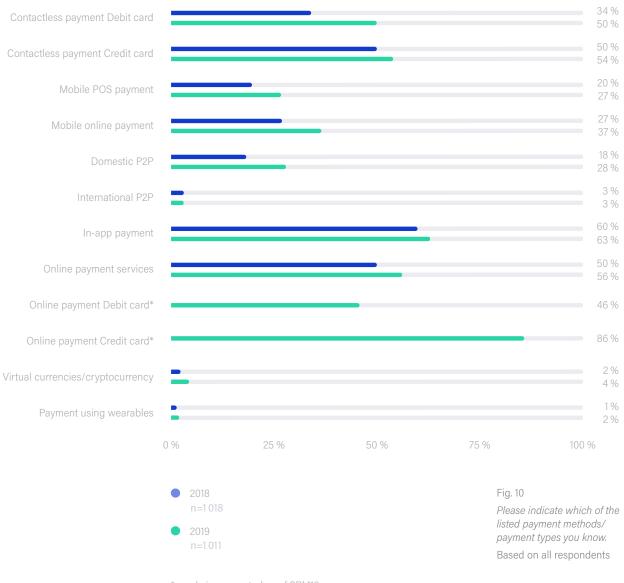
previous year, as query changed

According to self-assessment, «Mobile payment» methods such as mobile payments on the Internet with 37% usage share (plus 9.6 PP compared to 2018), «peer-to-peer» payments with 28% (plus 9.7 PP compared to 2018) as well as mobile payments on the spot in a retail shop with 27% (plus 7.1 PP compared to 2018) are used even more cautiously, albeit with considerable growth rates compared to last year's measurement.

As regards usage rates, cryptocurrencies (4%) and payments with «wearables» (2%) play a subordinate role.

Men as well as persons under 45 years of age and progressively oriented, extroverted personalities are generally more tech-savvy and use new technologies (contactless, mobile, online) much more frequently.

#### **USE OF NEWER PAYMENT INSTRUMENTS**



<sup>\*</sup> newly incorporated as of SPM19

#### Payment behaviour according to journal entries

A look at the actual usage behaviour demonstrates clearly that although cash is still the most frequently used payment instrument in terms of the number of transactions (transaction share of 48%), cash payments (27%) lag behind debit card payments (29%) in terms of turnover (cf. Table 2).

Debit cards are used considerably more frequently in French-speaking Switzerland than in German-speaking Switzerland, while cash is much more widespread in German-speaking Switzerland than in French-speaking Switzerland.

Likewise relevant in terms of turnover are credit card payments, which account for 22% of the total volume, and invoicing or online transfers, which account for 15% (cf. Table 2).

While the majority of debit card transactions (62%) are still carried out conventionally by inserting the contactless card into the payment terminal due to the later introduction of the contactless card over time, the use of the contactless function for credit cards is already very widespread, particularly in German- and Italian-speaking Switzerland, and with a share of 45% is already above the value for conventional payments (33%) in terms of quantity. However, with regard to the transaction volume in terms of value, the largest share is still transacted in the conventional way.

#### PAYMENT METHODS BASED ON THE NUMBER OF TRANSACTIONS AND TURNOVER

according to journal entries on the domestic market

Payment method	Distribution according to number of transactions		Distribution according to turnover		Mid-price transaction	
	Number of transactions	Share of transactions in %	Turnover in CHF	Share of turnover in %	Median	
Cash	3 073	47.7	86 842	26.5	10.52	
Debit card	1638	25.4	93 896	28.7	27.04	
Credit card	1005	15.6	71 801	22.0	27.11	
Prepaid (credit) card	66	1.0	1 427	0.4	12.16	
Retailer card/customer card	116	1.8	7 872	2.4	17.22	
Invoice*	210	3.3	47 301	14.5	95.34	

Table 2 TABLE CONTINUED: NEXT PAGE →

<sup>\*</sup> Values not comparable with previous year, as query changed

Invoices are predominantly paid by online bank transfer or e-banking. Almost 96% of expenditure for one-off or irregularly recurring payments is made online, which corresponds to a 98% turnover share.

In everyday use, on the other hand, Internet and mobile payment methods still play a subordinate role, each accounting for less than 3% of the total transaction volume in terms of both volume and turnover (cf. Table 2). In spite of good awareness values and already considerable user shares (percentage of participants indicating that they use or have used the means of payment), the payment instruments in question have not yet found their way into everyday payment behaviour.

In this context, it should also be noted that, according to the respondents' self-assessment, the use of means of payment and effective payment behaviour on the basis of journal documentation are not directly comparable, but there are certain differences between the values. The reason for this is sometimes that the journal survey only includes the frequency of use of the means of payment in the period under consideration, but the online survey also takes into account one-off use or use from a longer period of time. As newer means of payment such as mobile payments are often used irregularly, this results in lower transaction shares and thus lower turnover shares.

#### PAYMENT METHODS BASED ON THE NUMBER OF TRANSACTIONS AND TURNOVER

according to journal entries on the domestic market

Payment method	Distribution according to number of transactions		Distribution according to turnover		Mid-price transaction
	Number of transactions	Share of transactions in %	Turnover in CHF	Share of turnover in %	Median
Advance payment	13	0.2	1384	0.4	60.39
Direct debit (LSV)	6	0.1	1092	0.3	145.51
Mobile payment	190	2.9	5 532	1.7	10.66
Online payment services	51	0.8	8 091	2.5	46.20
Other	80	1.2	1851	0.6	9.15
Sum	6 448	100.0	327 089	100.0	

Table 2

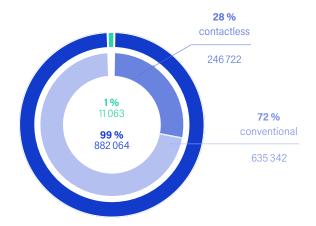
#### **Debit card**

The popularity of the debit card is also reflected in its use in comparison to the credit card it is used twice as much. In 2018, approximately 934 million transactions were conducted with domestic debit cards; 95% of these were domestic and 5% took place abroad (cf. Fig. 12). Between 2005 and 2018, domestic debit card transactions more than tripled. Contactless debit card payments accounted for 28% of face-to-face payments on the domestic market (cf. Fig. 11).

In 2018, around CHF 51 billion was transacted with Swiss debit cards—of which around CHF 47 billion (approx. 93%) domestically and around CHF 4 billion (approx. 7%) abroad (cf. Fig. 14). Turnover has more than doubled since 2005. In 2018, 14% of domestic debit card turnover in Switzerland was made at in-store points of sale using a contactless card (cf. Fig. 13).

#### TRANSACTION FREQUENCY OF DOMESTIC CONTACTLESS DEBIT CARDS IN 2018 ON THE DOMESTIC MARKET

Analysis of SNB data -in millions



#### DEVELOPMENT OF TRANSACTION FREQUENCY FOR DOMESTIC DEBIT CARDS Fig. 12

Analysis of SNB data -in millions

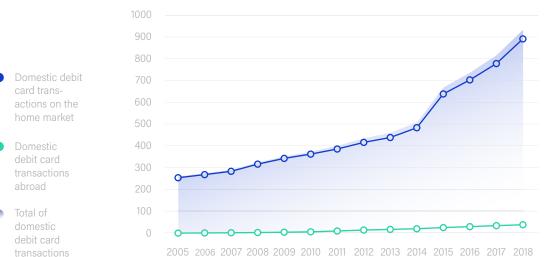


Fig. 11



Domestic contactless debit card transactions increased 212-fold between 2015 and 2018 (cf. Fig. 15). Turnover from contactless domestic debit cards increased 250-fold between 2015 and 2018 (cf. Fig. 16).

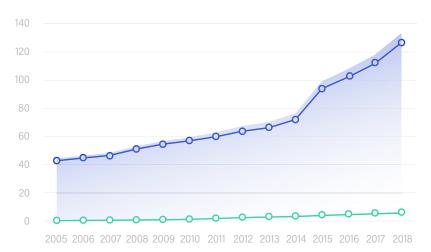
On average, an adult in Switzerland made 132 debit card transactions in 2018—of those, 126 (95%) were domestic and around 6 (5%) of them took place abroad (cf. Fig. 17). Between 2005 and 2018, the use of debit cards per adult tripled.

Annual debit card turnover per capita for adults amounted to CHF 7,205 in 2018 (cf. Fig. 18). Since 2005, per capita expenditure has almost doubled.

#### NUMBER OF DEBIT CARD TRANSACTIONS PER CAPITA FOR THE ADULT POPULATION

Fig. 17

Analysis of SNB data

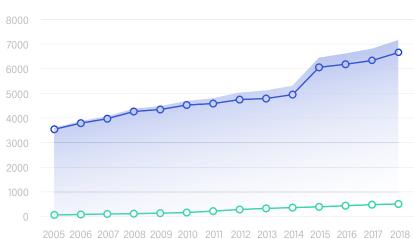


- Domestic debit actions on the
- Total of

#### ANNUAL DEBIT CARD TURNOVER PER CAPITA FOR THE ADULT POPULATION

Fig. 18

Analysis of SNB-Data - in CHF



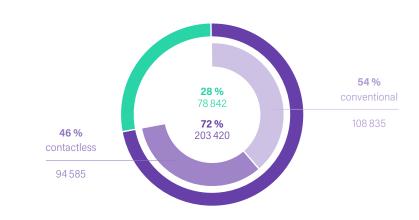
#### **Credit card**

In 2018, almost 465 million transactions were conducted with domestic credit cards; 60% of these were domestic and 40% took place abroad (cf. Fig. 20). This amounts to almost half of the number of debit card transactions. About half of the domestic face-to-face payments were contactless payments (cf. Fig. 19). Between 2005 and 2018, domestic credit card transactions saw a more than 4-fold increase.

Swiss credit cards accounted for around 44 billion—of which around CHF 23 billion (approx. 53%) domestically and around CHF 21 billion (approx. 47%) abroad (cf. Fig. 22). Turnover has more than doubled since 2005. In 2018, 24% of domestic credit card turnover in Switzerland was made at in-store points of sale using a contactless card (cf. Fig. 21).

#### TRANSACTION FREQUENCY OF DOMESTIC CONTACTLESS CREDIT CARDS IN 2018 ON THE DOMESTIC MARKET

Analysis of SNB data - in millions



#### Face-to-face business

#### **DEVELOPMENT OF TRANSACTION FREQUENCY FOR DOMESTIC CREDIT CARDS**

Analysis of SNB data - in millions

400 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018

Fig. 20



Contactless domestic credit card transactions increased 5-fold between 2015 and 2018, while turnover from contactless domestic credit cards increased 8-fold (cf. Figs. 23 and 24).

On average, each adult person in Switzerland made 66 credit card transactions in 2018-of those, 40 (60%) were domestic and 26 (40%) took place abroad (cf. Fig. 25). In 2018, per capita domestic credit card use amounted to exactly half of debit card use. Between 2005 and 2018, the use of credit cards per capita increased more than 3.5 times.

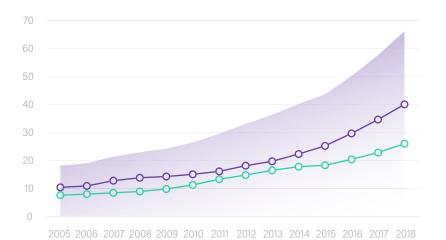
Annual credit card turnover per capita for adults amounted to CHF 6,205 in 2018 (cf. Fig. 26). Since 2005, per capita expenditure on credit cards has almost doubled.

- Total of

#### NUMBER OF CREDIT CARD TRANSACTIONS PER CAPITA FOR THE ADULT POPULATION

Fig. 25

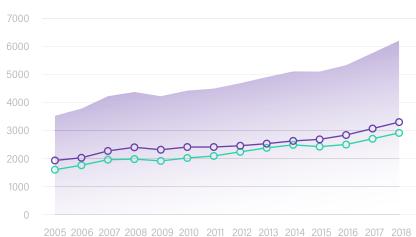
Analysis of SNB data



#### ANNUAL CREDIT CARD TURNOVER PER CAPITA FOR THE ADULT POPULATION

Fig. 26

Analysis of SNB data - in CHF



### **Focus on charges**

The survey results suggest that there are certain information deficits and sometimes considerable uncertainties in dealing with the question of charges for card payments.

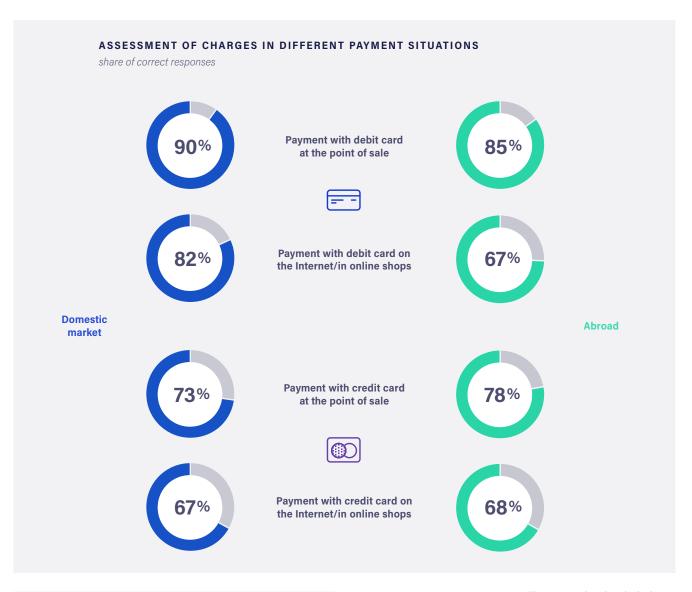
Around one in ten wrongly assumes that domestic on-the-spot transactions with debit cards are subject to a charge for the buyer in brick-and-mortar retail, while in the case of online payments it is just under one in five.

The values for credit card transactions are comparatively higher: For example, 27% expect charges for domestic payments in face-to-face business, and one in three for payments on the Internet.

On the other hand, the error rates for foreign transactions are again significantly higher. With regard to debit card transactions at the POS, around 15% of respondents believe that there are no charges when paying, compared with over 33% when paying online. The situation is similar for credit card transactions. Accordingly, in connection with POS transactions, 22% of the respondents incorrectly assume that no charges are incurred, while the error rate for Internet transactions amounts to 32%.

In addition to the error rates, it is also of interest for the evaluation of the level of information how confident the respondents are in their answers, whereby the certainty of the answer varies depending on the payment situation and the means of payment.

While the respondents are very familiar with the POS scenario and can therefore better assess the answers, the uncertainty factor for Internet payments increases significantly. This is also true for debit card payments compared to credit card payments. Alt-



hough the error rates in the case of debit card payments are generally lower, respondents find it much more difficult to assess their responses in relation to debit card transactions, particularly with regard to payments abroad.

Note: The query related exclusively to the most common card products. Newer means of payment such as Revolut were not taken into account.

#### Payment behaviour depends on the payment amount

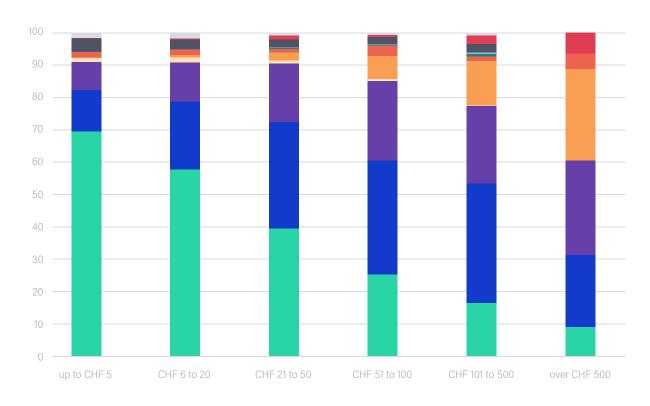
As the analysis of the payment journal shows, the payment amount has a significant influence on the choice of payment method (cf. Figs. 27 and 28).

Cash for payments below CHF 20 is still by far the most frequently used payment instrument. The majority of cash transactions (72%) are attributed to small amounts of up to CHF 20, of which 27% are for small amounts of up to CHF 5. According to the respondents, the main reasons for cash payments are social norms («small amounts should be paid in cash»), force of habit, high practicability and the possibility to «get rid of coins».

In addition to cash, contactless and mobile payment methods (in particular «in-app» payments), retailer cards and prepaid cards are also being used disproportionately more frequently for the payment of small and very small amounts.

#### MEANS OF PAYMENT BY DOMESTIC AMOUNT RANGE

Share of transactions in %, according to journal



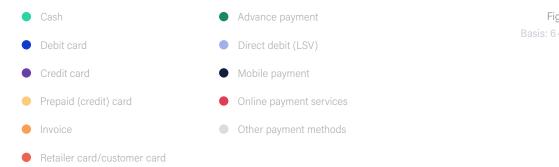


Fig. 27

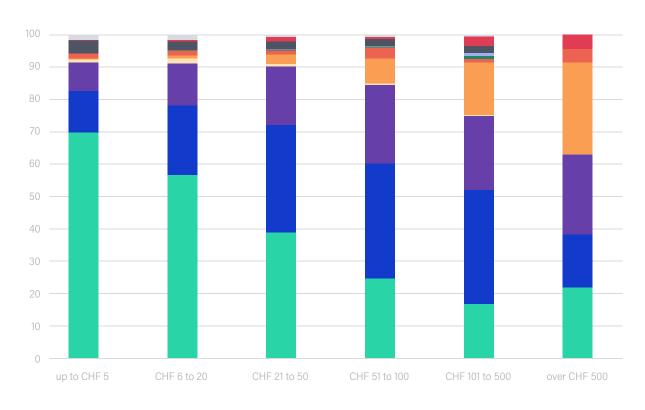
Card payment is generally used for amounts over CHF 5. While conventional debit cards are increasingly being used for purchases between CHF 6 and CHF 20, credit cards are usually only used for purchases of CHF 20 or more. Having said this, the total price has no substantial influence on contactless payment when deciding between debit and credit cards.

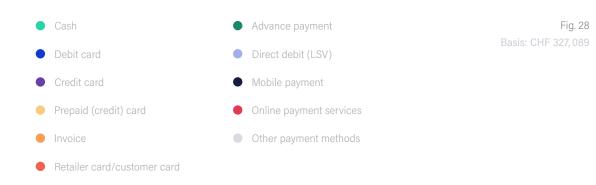
The transition threshold from cash to card transactions (i.e. the point where the share of card transactions outweighs that of cash transactions) lies in the range between CHF 20 and 50, with card payments increasing proportionally with increasing amounts up to an upper limit of CHF 500. In the case of amounts above this, cash is increasingly gaining ground.

For amounts of CHF 100 or more, traditional distance payment methods such as invoice, advance payment and direct debit as well as conventional (debit or credit) card payments and Internet payment methods predominate, with large amounts over CHF 500 being paid disproportionately more frequently by online bank transfer.

#### MEANS OF PAYMENT BY DOMESTIC AMOUNT RANGE

Share of turnover in %, according to journal





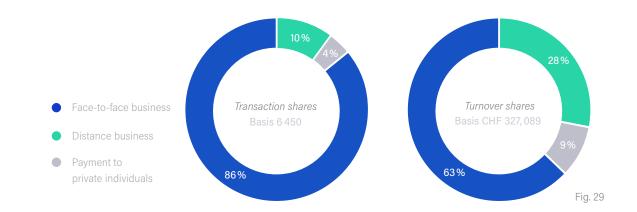
#### Payment behaviour depends on the situation

In addition to the payment amount, the choice of means of payment also depends on the payment situation and the place or purpose of payment.

In terms of volume alone, the majority (86%) of transactions are concentrated in face-to-face business, while distance business accounts for only one tenth of all effected transactions. Transfers to private individuals («peerto-peer» payments) account for 4% of all transactions (cf. Fig. 29).

Measured in terms of turnover, however, the differences are much smaller: While 63% of turnover is generated in brick-and-mortar retail, distance business achieves a considerable share of 28% of the total turnover volume due to the relatively higher transaction amounts. «Peer-to-peer» wire transfers currently account for 9% (cf. Fig. 29).

In brick-and-mortar retail, debit card transactions represent the largest share of turnover at 42%, followed by cash transactions at 34% (cf. Table 3). While cash payments are slightly lower than in the previous year (minus 2.6 PP compared to 2018), debit card transactions increased significantly (plus 4.8 PP compared to 2018). This illustrates the continued importance of cash in face-to-face business, but at the same time shows the potential of debit models.



#### **Face-to-face business**

#### PAYMENT METHODS BASED ON TURNOVER AND THE NUMBER OF TRANSACTIONS

according to journal entries on the domestic market

Payment method	Distribution acco	ording to number	Distribution according to turnover		
	Number of Transaction share transactions in %		Turnover in CHF	Turnover share in %	
Cash	2 867	51.7	69 065	33.5	
Debit card	1575	28.4	86 664	42.1	
Credit card	788	14.2	39 533	19.2	
Prepaid (credit) card	52	0.9	916	0.4	
Retailer card/customer card	104	1.9	6 174	3.0	
Mobile payment	84	1.5	2191	1.1	
Other	75	1.4	1 419	0.7	
Sum	5 545	100.0	205 961	100.0	

Table 3

Distance transactions are predominantly carried out by credit card or by online bank transfer or invoice (cf. Table 4). Around 36% of payments effected are made by credit card (including prepaid), which also corresponds to 36% of sales. A further 29% are made via online bank transfer or invoice with an associated sales volume of 45% and just under 15% of payments effected are made via smartphones, with the associated value share in this case only amounting to 3%.

#### **Distance business**

#### PAYMENT METHODS BASED ON TURNOVER AND THE NUMBER OF TRANSACTIONS

according to journal entries on the domestic market

Payment method	Distribution acco	ording to number	Distribution according to turnover		
	Number of transactions	Transaction share in %	Turnover in CHF	Share of turnover in %	
Debit card	56	8.8	5 966	6.5	
Credit card	213	33.3	31 961	35.1	
Prepaid (credit) card	14	2.2	381	0.4	
Retailer card/customer card	11	1.7	1685	1.8	
Invoice *	188	29.4	40 740	44.7	
Advance payment	11	1.7	1144	1.3	
Direct debit (LSV)	4	0.6	873	1.0	
Mobile payment	95	14.9	2 885	3.2	
Online payment services	45	7.0	5 227	5.7	
Other	2	0.3	293	0.3	
Sum	639	100.0	91154	100.0	

Table 4

<sup>\*</sup> Values not comparable with previous year, as query changed

#### Place of payment

Table 5 provides an overview of the distribution of sales and transactions depending on the payment location or purpose of use.

With regard to the use of means of payment or the purpose of expenditure, card payments dominate in the high-turnover retail trade.

Compared with other forms of payment, cash is much more commonly used in restaurants and bakeries, as well as at external sales points (kiosks and takeaways).

While debit cards are used in a wide variety of ways across different spending categories, they are mainly used in restaurants, for leisure activities, at petrol stations and when travelling.

#### PAYMENT LOCATION BASED ON TURNOVER AND THE NUMBER OF TRANSACTIONS

according to journal entries on the domestic market

Place of payment	Distribution according to number of transactions		Distribution according to turnover		Mid-price transaction	
	Number of Transaction transactions share in %		Turnover in Share of CHF turnover in %		Median	
Retail for daily needs	2 410	37.4	87 297	26.7	19.12	
Personal clothing	154	2.4	16 190	4.9	62.08	
Pharmacy/drugs	92	1.4	5 063	1.5	33.28	
Retail for longer-term purchases	166	2.6	33 934	10.4	58.69	
Petrol station/petrol	246	3.8	12 334	3.8	51.31	
Kiosk, bakery	444	6.9	4 987	1.5	6.80	
Restaurant	703	10.9	20734	6.3	16.45	
Cafe, pub, snack bar, fast-food restaurant, take-away, delivery services, bar, club	767	11.9	10 279	3.1	8.79	
Leisure activities/entertainment	273	4.2	22734	7.0	31.01	
Service provider (e.g. hairdresser)	149	2.3	15 097	4.6	56.25	
Hotel, guest house	12	0.2	7 682	2.3	150.09	

Table 5 TABLE CONTINUED: NEXT PAGE →

In the mail order business, for payments to private individuals and for donations and payments to public offices, the invoice or bank transfer is often the means of payment of choice.

The majority of Internet payment methods are used for the payment of expenses relating to leisure activities and mobility, orders from mail order companies, expenditure to private individuals and payments to public authorities.

In addition to the retail trade, mobile payment methods are used for daily needs, especially for expenses in relation to mobility (public transport, parking).

#### PAYMENT LOCATION BASED ON TURNOVER AND THE NUMBER OF TRANSACTIONS

according to journal entries on the domestic market

Place of payment	Distribution according to number of transactions		Distribution according to turnover		Mid-price transaction
	Number of transactions	Transaction share in %	Turnover in CHF	Share of turnover in %	Median
Mobility, travel, parking, transportation	470	7.3	21 677	6.6	6.91
Vending machines (e.g. cigarettes, drinks/snacks)	90	1.4	306	0.1	2.15
Placing a mail order without Internet (e.g. catalogues, phone orders)	30	0.5	2 569	0.8	60.39
Expenses to private individuals (e.g. babysitting, tutoring)	40	0.6	9 229	2.8	54.29
Private payments (e.g. pocket money)	65	1.0	11 580	3.5	40.79
Spending/donations to charities	48	0.7	3 547	1.1	35.61
Payments to public authorities (e.g. fines, fees)	58	0.9	8 050	2.5	42.09
Other	233	3.6	33 801	10.3	36.36
Sum	6 450	100.0	327 089	100.0	

Table 5

### VI. A look into the future

#### New forms of payment

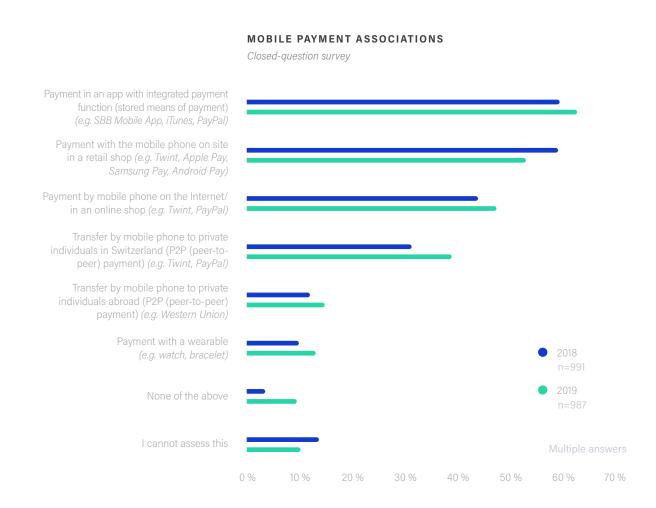
Contactless payments with credit and debit cards («contactless payment») as well as mobile payment methods («mobile payment») are among the newer forms of payment.

As of 2007, credit cards began to gradually introduce the contactless function, with debit cards offering it across the board as of 2015. While the number of contactless credit cards issued in Switzerland remained stable at 95% compared to the previous year, the number of contactless debit cards issued last year once again increased significantly (plus 20.0 PP compared to 2018) and currently accounts for 71% of the total debit card volume.

The higher prevalence is also reflected in the usage: Of the 93% of respondents who use a debit card, 54% use the contactless payment function, which corresponds to an increase of 46%. Using the credit card's contactless function is even more widespread: Of the 79% of respondents that use a credit card (excluding prepaid), 69% use the contactless function.

#### **Understanding mobile payment**

Based on the respondents' statements, there is still no universal understanding of «mobile payment» (cf. Fig. 30). The term is most strongly associated with payments in an app with an integrated payment function (63%), payments by mobile phone on the spot in a retail shop (53%) and payments by mobile phone on the Internet or in an online shop (47%). 39% think «mobile payment» is a domestic «peer-to-peer» payment. A comparatively smaller proportion (15%) associates mobile payment with transfers to private individuals abroad, around 13% with «wearables».



Compared to the previous measurement in 2018, respondents perceived a shift in the importance of mobile payments as POS payments towards «peer-to-peer», «in-app» and online payments («remote payments»).

Fig. 30 Question: Which of the following payment situations do you generally associate with mobile payment?

Based on respondents that claimed to be familiar with mobile payments

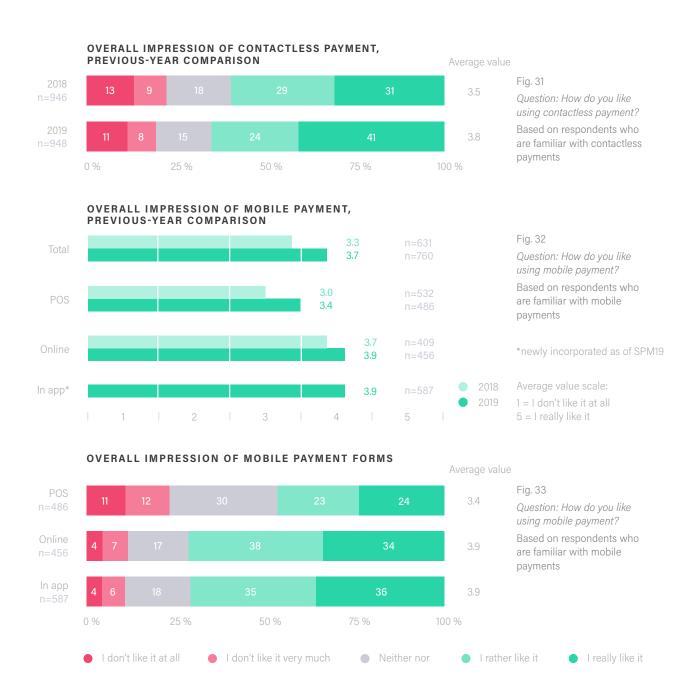
#### How users like the new payment forms

New forms of payment are clearly on the rise. When asked about the appeal of the new forms of payment, the contact-less function was rated significantly more positively than in the previous year (AV 3.5) with an average score of 3.8 on a scale of 5 (cf. Fig. 31). In this respect, there are no significant differences between contactless payment by debit card and contactless payment by credit card.

The same applies to mobile payment. With an average score of 3.7 on a scale of 5, it is rated significantly better than in the previous year (AV 3.3) (cf. Fig. 32).

This applies not only to mobile payment in general, but to all forms of mobile payment, although in some cases there are significant differences between the payment forms (cf. Fig. 33). While mobile payment at the POS or on the spot in a retail shop is still evaluated rather cautiously with an average value of 3.4 and a relatively high sceptic share at 23%, mobile payment on the Internet as well as «in-app» payments with an average value of 3.9 each already enjoy great popularity and thus even rank ahead of contactless payment on the popularity scale.

As expected, users like the new forms of payment significantly better than non-users. Accordingly, contactless users rate the payment procedure very positively (average value 4.4), whereas the rating for non-users is more differentiated: 39% didn't like contactless payment or didn't like it very much, while another 39% either liked it or liked it a lot. It is unsurprising to see that there is a similar attitude towards mobile payment: For example, the average values of user ratings are about one scale point higher than those of non-users.



#### Intended use of new payment methods

New forms of payment still have potential. Accordingly, over 58% of respondents could in principle imagine using contactless payment within the next three years (even more frequently), which corresponds to an increase of 4.5 PP compared to 2018 (cf. Fig. 34). Thereby, the utilization potential for debit cards is significantly higher than for credit cards, which is probably due to the increase in contactless debit cards.

By comparison, the intention to use mobile payment has increased even more (increase by 0.6 scale points on a scale of 5) (cf. Fig. 35). The highest potential comes from

Fig. 34

Question: How likely do you think it is that you will use contactless payment (even more frequently) within the next three years?

Based on respondents who are familiar with contactless payments

Fig. 35

Question: How likely do you think it is that you will use mobile payment (even more frequently) within the next three years?

Based on respondents who

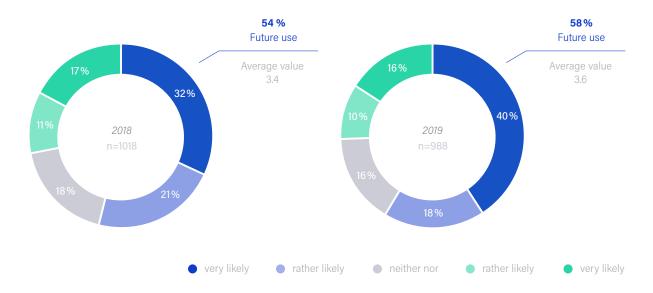
are familiar with mobile

payments

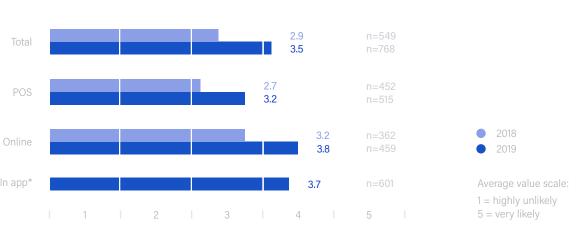
#### FUTURE USE OF CONTACTLESS PAYMENT, PREVIOUS-YEAR COMPARISON



Fig. 35



#### FUTURE USE OF MOBILE PAYMENT, PREVIOUS-YEAR COMPARISON



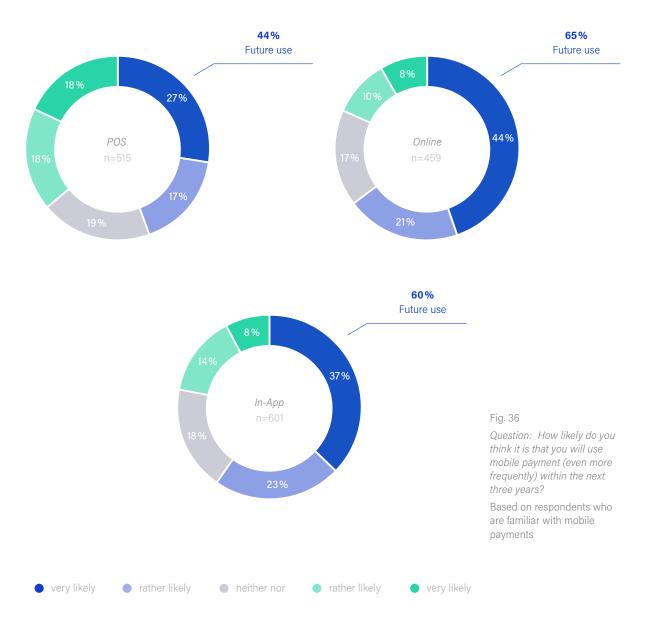
<sup>\*</sup>newly incorporated as of SPM19

mobile payment on the Internet (cf. Fig. 36). Almost two thirds (65%) of respondents consider it likely that they will use the payment method (even more frequently) within the next three years. The forecast for «in-app» payments also looks promising. Three out of five people could imagine using this form of payment (even more frequently) in the future. At an average of 44%, the usage intention is lowest in face-to-face business, although a certain potential can also be assumed here with appropriate implementation (improvement of speed, coupling with value-added services).

As in the case of favouring payment forms, differences can once again be determined between users and nonusers of the payment method. While only just under 37% of non-users consider it likely that they will use contactless payment within the next three years, 76% of users are considering a future increase in use. What is conspicuous here is the significantly higher usage intention among nonusers of the contactless function on debit cards compared with that of non-users of the contactless function on credit cards.

Differences between users and non-users can also be observed in mobile payments. Whereas the usage potential for POS and «in-app» payments varies greatly depending on group membership (usage potential of 77% for users vs. 21% for non-users for POS payments and 67% vs. 27% for «in-app» payments), the ratio for online payments is much more balanced (76% for users vs. 47% for non-users).

#### **FUTURE USE OF MOBILE PAYMENT FORMS**



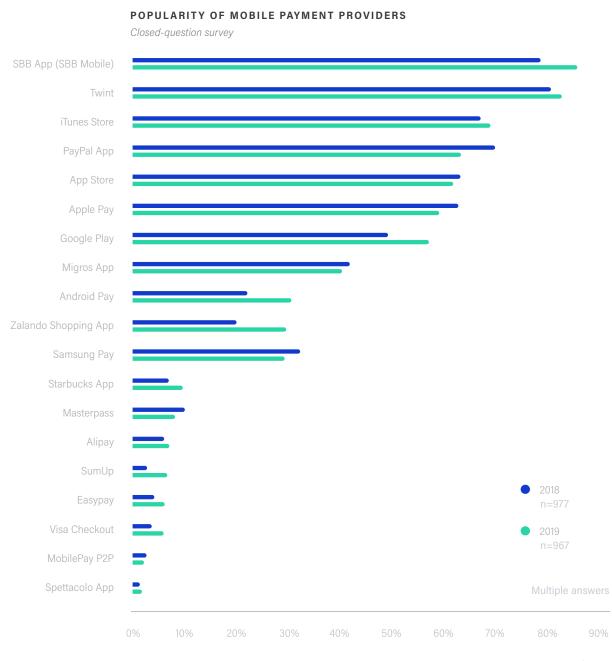
In line with the increase in the attractiveness of mobile payment methods, the awareness of mobile payment providers has also increased (cf. Fig. 37). According to the supported query, the SBB App (SBB Mobile) was the most popular with 86%, closely followed by Twint with 83%. The iTunes Store (69%), the PayPal App (64%), the App Store (62%) and Apple Pay (59%) are also represented, albeit lagging far behind the top two.

With the exception of PayPal, Apple Pay and Samsung Pay which show declining figures, the majority of the payment solutions on offer are more well-known than in the 2018 survey, above all the Zalando Shopping App (plus 9.6 PP), Android Pay (plus 8.5 PP) and Google Play (plus 7.9 PP).

Fig. 37

Question: Which of the following providers do you know at least by name?

Based on respondents who are familiar with mobile payments



### VII. Glossary

#### **Distance business (remote payments)**

Payments where payer and recipient are in separate spaces (e.g. payment in online shops, deposit at the counter, etc.)

**Debit card (EC card)** Payment card that is linked to a private account and debited immediately after payment (e.g. Maestro/EC card, PostFinance Card/Postkarte, V PAY).

Cash back (POS withdrawal) The possibility to withdraw cash when making a retail purchase, e.g. at supermarket checkouts. The total amount for purchase and withdrawal is deducted from the private account.

**E-commerce** The sale of goods and services via the Internet.

**Electronic bill (e-bill)** Invoices that are created and transmitted electronically.

**In-app payments** A form of mobile payment whereby payments are made using an integrated payment function (e.g. iTunes, PayPal, SBB mobile app).

**National principle** Based on the origin of the payment card (in this case only Switzerland). All transactions made with domestic cards within and outside of Switzerland are collected.

**Domestic principle** Based on the geographical boundaries within Switzerland. All transactions made with domestic and foreign cards within Switzerland are collected.

**Online payment services** Methods specially developed for Internet payment, such as PayPal, Sofortüberweisung, or Twint.

Contactless payment by card (contactless payment) Processes that transmit the necessary payment data without contact, in other words, via wireless technology (NFC, Bluetooth) by holding the card in front of the reader. A PIN is only required for purchases over CHE 40.

**Credit card** Payment card with a delayed account debit. The retailer is guaranteed payment (e.g. Master Card, Visa, American Express).

#### **Customer card with payment function**

A customer or loyalty card from a retailer that can be used to pay. The payment itself usually occurs downstream via direct debit or charging a credit card (e.g. MyOne card [Manor, Jumbo, Athleticum], Globus card, Supercard credit card, Cumulus credit card, Starbucks card, petrol station cards, gift cards).

**Direct debit** Electronic payment method in which the recipient, using a payment service provider, has an amount debited from the payer's account (e.g. LSV, debit direct, Swiss direct debit).

Mobile payment (mobile payment, **M-payment**) Payment using a smartphone or other mobile device (e.g. Android Pay, Apple Pay, Samsung Pay, Twint, PayPal).

Cash on delivery Shipping and payment method whereby, upon the receipt of the goods, payment is made by the recipient to the delivering postal or logistics company.

Online transfer (online banking) An electronic payment system that enables customers of banks or other financial institutions to manage their personal account online and process banking transactions via the website of the institution.

Online transfer A payment made to the recipient's account from the payer via a transfer of funds online.

Paper invoice Bill on paper

Peer-to-peer (P2P) payments A form of mobile payment referring to payments made between private individuals domestically or abroad using a mobile app (e.g. PayPal, Twint, Western Union).

POS (Point of Sale) Physical place where goods or services are sold and paid for (e.g. at the cash register). Online and mail order businesses are not currently included in the present definition of POS.

Face-to-face business (proximity payments) Payment made locally in a physical retail outlet (POS).

Pre-paid card Payment cards that need to be charged with credit before use.

Virtual currency (cryptocurrency) Electronic currency that functions without cash and is based on blockchain technology.

Advance payment A term of payment that requires the buyer to first pay the purchase price before the seller starts the contractual delivery of the goods or the promised service.

Wearable payments A form of mobile payment involving contactless payment via portable devices such as smartwatches and fitness trackers.

Source: German Central Bank, 2017

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The ZHAW Zurich University of Applied Sciences, with its eight departments and more than 12,000 students, is one of the leading Swiss universities of applied sciences and is active in teaching, further education, research and services. In addition to training and further education, the ZHAW—as a university of applied sciences—has the task of conducting practice-oriented research, promoting the transfer of technology to small and medium-sized enterprises, and providing services on the part of third parties. New knowledge obtained via research flows back into teaching and practice and thus directly or indirectly benefits a specific group of users or society.

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The University of St. Gallen (HSG), as one of Europe's leading business universities, provides training for managers. Founded in 1898 as a demand-oriented business academy, for more than a hundred years the HSG has been a prominent contact point for ambitious people whose goal is to achieve something-personally and socially—to actively shape the future. Staff from 30 institutes offer students qualified degrees in the areas of business administration, economics, law and social sciences, as well as international relations. The HSG regularly features at the top of international business school rankings and is currently ranked fourth in the Financial Times ranking for European business schools.

Gehring, B., Graf, S. and Trütsch, T. (2019): Swiss Payment Monitor 2019, Swiss Payment Monitor 2019 University of St. Gallen/Zurich University of Applied Sciences

#### **Swiss Payment Association (SPA)**

The aim of the association is to strengthen the position of club members in the Swiss payment market, to exchange and to engage in topic-based cooperation with other players in the Swiss payment market and to promote cashless payment. The activities of the association are in the interest of fair and effective competition.

swiss-payment-association.ch

