



BANCA D'ITALIA
EUROSISTEMA

Mercati, infrastrutture, sistemi di pagamento

(Markets, Infrastructures, Payment Systems)

Report on the payment attitudes of consumers in Italy:
results from ECB SPACE 2024 survey



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REPORT ON THE PAYMENT ATTITUDES OF CONSUMERS IN ITALY: RESULTS FROM ECB SPACE 2024 SURVEY

Abstract

This report presents the payment attitudes of consumers in Italy, based on the ‘Study on the payment attitudes of consumers in the euro area (SPACE) – 2024’, conducted by the European Central Bank between the end of 2023 and the first half of 2024. The main purpose of the report is to provide updated information on the prevailing trends in the use of payment instruments in Italy and, where applicable and relevant, to compare them with those of the euro area and with data from previous surveys (conducted in 2016, 2019 and 2022). The data show that, while cash remains the main payment instrument at the point of sale (POS), especially for low-value purchases (up to €50), its overall usage has gradually declined. Cashless payments are on the rise overall, also owing to an increase in e-commerce purchases. In addition to being the main alternative to cash for POS transactions, cards continue to be the most used payment instrument both in terms of number and value of transactions for online payments. Moreover, mobile payments at the POS and e-payments solutions for online purchases have been growing as well.

KJEL Classification: EL41, D12, D14.

Keywords: payment instruments, cash, payment attitudes, consumers’ payment behaviour.

Sintesi

Il rapporto presenta le abitudini di pagamento dei consumatori in Italia, sulla base dei risultati dell’indagine condotta nell’area dell’euro dalla Banca Centrale Europea tra la fine del 2023 e la prima metà del 2024 (*Study on the payment attitudes of consumers in the euro area – SPACE 2024*). Lo scopo principale del documento è fornire informazioni aggiornate sulle tendenze nell’utilizzo degli strumenti di pagamento nel nostro Paese e, ove possibile e utile, confrontarle con quelle dell’area dell’euro e delle indagini precedenti (condotte nel 2016, nel 2019 e nel 2022). I dati mostrano che, sebbene il contante rimanga lo strumento di pagamento principale presso il punto vendita fisico (*Point of Sale – POS*), specialmente per gli acquisti di valore ridotto (fino a €50), il suo utilizzo si è progressivamente ridotto. I pagamenti con strumenti elettronici stanno complessivamente aumentando, supportati anche dalla crescita del commercio elettronico. Le carte, oltre a rappresentare la principale alternativa al contante per le transazioni al POS, continuano anche a essere lo strumento di pagamento più utilizzato, in termini sia di numero sia di valore, per gli acquisti online. Inoltre, crescono i servizi di pagamento digitali tramite dispositivi mobile al POS e per gli acquisti online (*e-payments*).

CONTENTS

Executive summary	7
1. Introduction	9
2. Methodology and data	9
3. Non-recurring payments	11
3.1 Payments at POS	12
3.2 Online payments	15
3.3 P2P payments	16
4. Recurring payments	16
5. Preferences for payment instruments	17
6. Access to cash	19
7. Access to non-cash means of payment	20
7.1 Ownership of crypto-assets	21
References	22
Appendix: additional figures	23

Executive summary

This statistical report, based on the study conducted by the European Central Bank (ECB) on the payment attitudes of consumers in the euro area (SPACE) in 2024, updates the information on consumer payment behaviour in Italy. The new survey was conducted between September 2023 and June 2024 and, in the case of Italy, it collected information from a sample of 4,088 respondents. Whenever possible and meaningful, the Italian results are compared with those for the euro area and with the results of previous SPACE surveys (in 2019 and 2022) and, where relevant, with a previous ECB study on the use of cash by households in the euro area (SUCH), conducted in 2016, in order to facilitate international comparisons and to identify possible trends.

The new SPACE 2024 study shows that in Italy:

- the use of cash at the physical point of sale (POS) is higher than the euro area average, although its share has continued to decline in recent years. In terms of the number of transactions, cash payments account for 61% of all POS transactions (69% in 2022; 82% in 2019), compared to 32% for card transactions (26% in 2022; 16% in 2019) and approximately 4% for mobile payments (2% in 2022). In a cross-country comparison, Italy remains one of the euro area countries with the largest cash usage;
- in terms of transaction value, cash payments account for 49% of total POS purchases (in line with 2022; 58% in 2019), compared to 39% for card transactions (43% in 2022; 32% in 2019) and 5% for mobile payments (2% in 2022);
- cash continues to be the most relevant instrument for purchases up to €50, though its usage has declined for almost all transaction sizes. In particular, it accounts for 64% of transactions up to €30 (76% in 2022; 89% in 2019) and 56% of payments between €30 and €50 (54% in 2022; 61% in 2019). However, for purchases between €50 and €100, cash represents only 44% of transactions (45% in 2022; 54% in 2019). Across all transaction value ranges, cash usage at POS in Italy is higher than in the euro area;
- compared to previous surveys, the heterogeneity in the use of digital payments among Italian regions has somewhat reduced and the gender gap is narrowed. The use of cash remains particularly relevant among the elderly, less educated and low-income population groups, while mobile devices are mainly used by younger people (generation Z and millennials);
- the acceptance of cards and other non-cash payment methods by merchants has increased to 87% (80% in 2022);
- the share of online payments has grown significantly, now representing 24% of total non-recurring transactions¹ (16% in 2022), confirming a trend observed among other euro-area countries. Cards remain the most widely used instrument for online

¹ Non-recurring day-to-day payments refer to payments at the physical point of sale (POS), person-to-person payments (P2P) and online payments, defined as good and services ordered and paid for online.

payments (51% in volume and 52% in value), followed by e-payment solutions (28% in volume and 26% in value);

- for person-to-person (P2P) transactions, cash is the most widely used payment instrument, accounting for 44% of transactions,² followed by payments with cards and mobile apps (43%);
- as in the rest of the euro area, direct debit is the most commonly used instrument for recurring payments,³ while cash plays only a minor role;
- despite cash still being the most frequently used instrument at POS, Italian consumers strongly express a preference for cashless payment methods when they can freely choose how to pay. The majority of respondents prefer electronic payments (61%) over cash (20%). Compared to other euro area countries, Italy ranks among those with the strongest preference for cashless payments;
- the main perceived advantages of using cards are convenience (avoiding the need to carry cash), as well as security and transaction speed. Cash, on the other hand, is preferred for providing better control over spending and for its broader acceptance by merchants. In any event, the share of Italian respondents who consider it important to be able to pay in cash has increased to 58% (from 52% in 2022) and 58% of respondents has expressed privacy concerns related to the use of digital payments (60% in the euro area);
- ATMs remain the primary source of cash provision for 76% of respondents.⁴ Cash provision in physical shops and from retailers, such as cashback and cash-in-shop services, is still not common neither in Italy nor in the euro area (5% and 3%; respectively). Overall, satisfaction with access to cash remains high but it has slightly declined, with 89% of Italian respondents considering it easy to obtain cash (93% in 2022). Italy has one of the lowest percentages of people reporting difficulties in accessing cash in the euro area countries;
- the share of consumers who report owning crypto-assets has increased to 9% (2% in 2022), as in the euro area; most of them hold such digital assets for investment purposes (54%), while only 20% of them use crypto-assets as a means of payment.

² In the previous surveys P2P transactions were recorded only in the physical payment diary while not in the online payment one, thus underreporting transactions for this use case. As a result, the 2024 figures are not directly comparable to those in 2022 and 2019.

³ Recurring payments are made on a weekly, monthly, annual or other basis and include several categories: rent or mortgage, utility bills, insurance, telephone or internet bills, taxes and public charges, subscriptions (e.g. magazines, sports club, streaming TV), season tickets for transport and loans.

⁴ Data for 2024 are not directly comparable to 2019 and 2022 due to the different definition of withdrawals, which also included an additional category for personal cash reserves in prior years.

1. Introduction

Consumers' preferences and behaviour in payments are progressively evolving towards digital transactions. In this context, the Eurosystem is engaged in closely monitoring emerging trends and the nature and extent of changes in payment habits by conducting regular surveys among consumers, consisting of a payment diary and an accompanying questionnaire. The survey allows to estimate the share of different payment methods in the various use cases, taking into account the most recent innovations in the payment system. Moreover, the granular information provides interesting insights about payment trends according to the demographic characteristics of the respondents.

The first survey was carried out by the ECB in 2016, with the Study on the Use of Cash by Households in the euro area (SUCH - Esselink and Hernández, 2017), where the diary reported payment behaviour only at the point of sale (POS) and for person-to-person (P2P) transactions. In 2019, the ECB expanded the scope of the survey with the Study on the Payment Attitudes of Consumers in the euro area (SPACE), by considering online and recurring payments in the payment diary as well as by extending questions about consumer preferences for cash and digital payments and other habits in order to provide a more comprehensive understanding of payment trends.⁵ In 2020 the ECB also decided to carry out the SPACE survey every two years. The main results of the various rounds of the SPACE survey are described in ECB (2020, 2022, 2024).⁶

This report focuses on payment behaviour in Italy, leveraging on the granular data from the SPACE 2024 survey. It also provides a detailed comparison, where possible, with the results of the previous rounds of the survey (Rocco, 2019; Coletti *et al.*, 2022; Bank of Italy, 2023) and, to offer a broader perspective, tries to contextualize the Italian picture within the euro area framework. Finally, the report examines key factors of payment choices in Italy (i.e. socio-demographic characteristics, transaction size, and the adoption of digital technologies) drawing from the recent study by Di Iorio and Rocco (2025).

The report is structured as follows. Section 2 briefly summarizes the methodology of the ECB consumer payment surveys and describes the data. Section 3 and Section 4 analyze, respectively, non-recurring and recurring transactions. Section 5 assesses consumers' preferences for the various payment options. Section 6 focuses on access to cash, while Section 7 describes access to alternative instruments and the ownership of crypto-assets.⁷

2. Methodology and data

The SPACE 2024 survey follows the methodological framework established in SPACE 2019 and SPACE 2022, allowing for comparability across most indicators. The survey covered 18 euro area countries, excluding Germany and the Netherlands, where the

⁵ The results of SUCH are not fully comparable with those of SPACE not only because of the partial overlap in output variables, but also for the somewhat different survey methods.

⁶ For the purposes of this report, it is specified that SUCH 2016, SPACE 2019, SPACE 2022, and SPACE 2024 refer to the surveys and data therein, whereas Esselink and Hernández (2017) and ECB (2020, 2022, 2024) constitute the bibliographic sources in which the main results for each survey are reported.

⁷ The report also includes a list of charts in the Appendix to assess in more detail the payment trends described in Sections 3 to 7.

Deutsche Bundesbank (DBB) and De Nederlandsche Bank (DNB) and the Dutch Payments Association (DPA) carry out their own surveys on payment behaviour and integrate their data in the ECB reports since their questionnaires were largely harmonised with the one used for the other countries.

Data are collected using an identical questionnaire translated into the national language. In order to prevent panel bias, half interviews are conducted online (computer-assisted web interviewing – CAWI) and half over the telephone (computer-assisted telephone interviewing – CATI) using a mix of mobile and fixed lines. The total sample size across participating countries was 40,981 respondents, with quotas set for country, age, gender, and day of the week to ensure representativeness. To capture the potential seasonality in consumers' payment behaviour, interviews were conducted in two waves: the first one between 26 September and 16 November 2023, and the second round, between 9 April and 3 June 2024.

A sample of euro-area residents older than 18 years was asked to fill in three payment diaries and a questionnaire on their behaviour and attitudes towards cash and cashless payment instruments. The diaries cover non-recurring payments, namely: (i) POS payments; (ii) P2P payments; (iii) online payments; (iv) recurring payments. POS, P2P, and online transactions were recorded in a one-day diary, while recurring payments referred to transactions made in the previous 30 days. Compared to its predecessor, the questionnaire has been expanded to include, for example, more questions on preferences, on cash withdrawal behaviour, and privacy concerns.

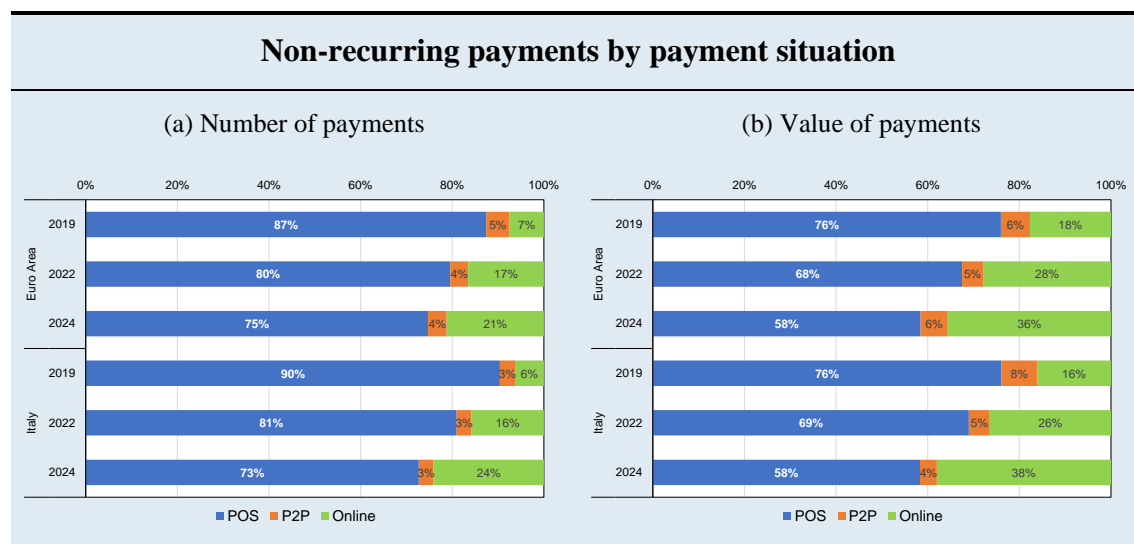
Most of the 2019 and 2022 data are comparable with the 2024 data. The main change from the earlier SPACE surveys is the inclusion of private payments to another person as a separate category of online payments. Due to this, the data on P2P payments are not comparable with the data from previous SPACE surveys. In addition, as the payments market is constantly evolving, the response options for payment instruments have been updated, especially for online payments. These changes have no impact on comparability but enable more effective analysis of the 2024 data.

The total sample size achieved in Italy is 4,088 individuals out of a total of 40,981 respondents in the 18 euro-area countries. Overall, Italian payment diaries data, that refer to non-recurring payments, consist of 8,050 transactions for POS, 397 for P2P and 2,837 for online shopping. On the other hand, recurring payments, consisting of a selection of bill payments made in the 30 days prior to the interview date, amount to 11,825.

3. Non-recurring payments

Non-recurring day-to-day payments refer to payments made to purchase goods and services at the physical point of sale (POS), person-to-person payments (P2P) not connected to the purchase of goods and services, and online payments, defined as good and services ordered and paid for online.⁸

Figure 1



Source: authors' calculations based on ECB SPACE 2019, 2022 and 2024 data.

The share of online payments in consumers' non-recurring purchases has increased considerably, while the share of payments at the POS has further declined. The incidence of P2P payments has remained broadly stable.

In 2024 the share of online payments in day-to-day non-recurring transactions in Italy reaches 24% in terms of number (16% in 2022; 6% in 2019; fig. 1a) and 38% in terms of value (26% in 2022; 16% in 2019; fig. 1b), reflecting a larger reliance to this payment channel for high-value transactions. This trend is in line with the euro area, where online transactions account for 21% in terms of number (17% in 2022; 7% in 2019), and 36% in terms of value (28% in 2022; 18% in 2019).

In Italy, POS payments still represent the bulk of the daily retail payments market, albeit decreasing over time; they account for 73% of total non-recurring purchases in terms of number (81% in 2022; 90% in 2019) and 58% in terms of value (69% in 2022; 76% in 2019). Italian figures are in line with the euro area ones: of all day-to-day payments, 75% are made at the POS in 2024 (80% in 2022; 87% in 2019) accounting for 58% in terms of value (68% in 2022; 76% in 2019). This evidence suggests that POS payments are mainly made for low-value purchases, as confirmed by the average value of transactions which is €28 compared to €55 for online payments.

⁸ From SPACE 2022 the transactions ordered online but paid at the point of sale (e.g. paying a courier at the door) are not considered as online transactions; therefore, cash is not among means of payment available for online transactions.

Finally, the incidence of P2P transactions has remained broadly stable at 3% of all non-recurring payments (as in 2022 and in 2019), while it has slightly decreased to 4% in terms of value (5% in 2022; 8% in 2019). In the euro area this share has remained stable at 4% in terms of number (as in 2022), while it has slightly increased to 6% in terms of value (5% in 2022).

3.1 Payments at POS

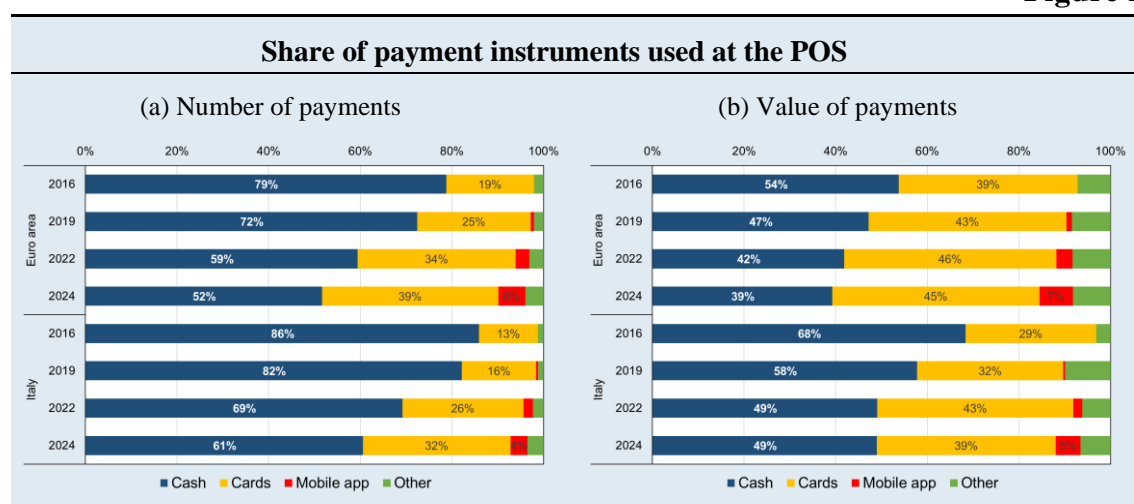
The data confirm a downward trend in the use of cash at the POS, alongside an increase in card usage. However, cash remains the most frequently used instrument.

In terms of volume, the share of cash payments at the POS in Italy further declined to 61% in 2024 (69% in 2022; 82% in 2019; fig. 2a), while the share of card payments rose to 32% (26% in 2022; 16% in 2019). In the euro area, cash payments represent 52% of total POS payments (59% in 2022; 72% in 2019), while card payments have reached 39% (34% in 2022; 25% in 2019). Italy remains more reliant on cash than the euro area average (see fig. 2), and has very high percentages of cash use both in volume and in value (see also Chart 5 of the ECB, 2024).

In terms of value, in Italy the share of non-cash payments at the POS remained stable at 51% (fig. 2b), thus confirming a weak dominance over cash (49%). Specifically, cashless transactions include 39% from card transactions (43% in 2022; 32% in 2019) and 5% from mobile payments (2% in 2022). In the euro area, the use of non-cash instruments shows higher figures (61% of the value of POS transactions, from 52% in 2022) if compared to Italy.

The use of mobile payments has increased but remains still limited for POS transactions in Italy (4% and 5% in number and value, respectively). In the euro area mobile payments show a slightly higher usage (6% and 7% in number and value, respectively).

Figure 2



Source: authors' calculations based on ECB SUCH (2016), SPACE 2019, 2022 and 2024 data.

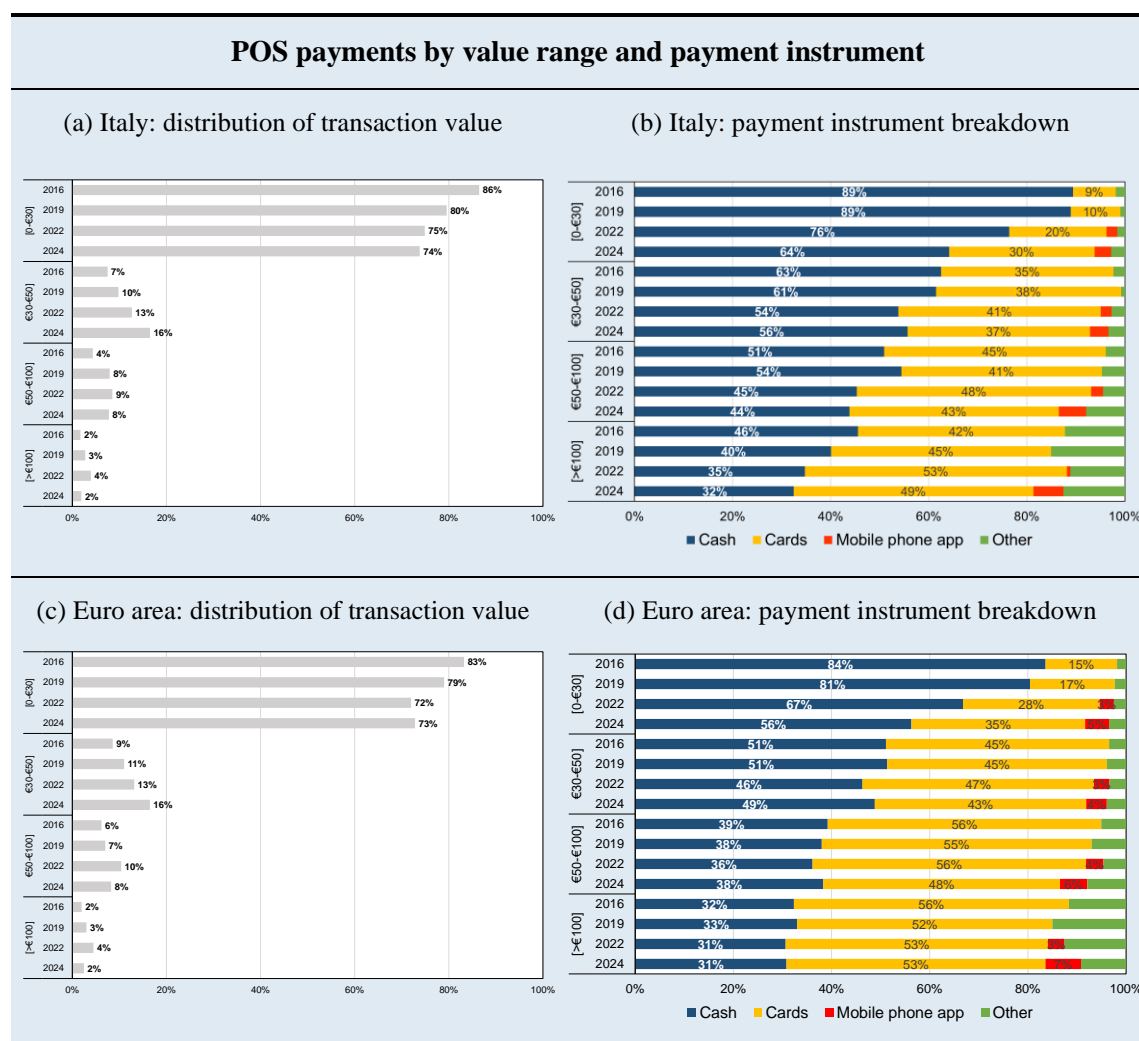
Notes: "Other" includes bank cheques, credit transfers, loyalty points, vouchers and gift cards and other payment instruments.

The average value of transactions differs across the means of payment, standing at €23 for cash, €34 for cards, €42 for mobile payments and €53 for other means of payments (mainly credit transfers and loyalty points).

The choice of payment instrument at the POS is significantly associated to the value of the transaction. Cash is used especially for low-value payments, while adoption of cards, mobile apps and other instruments increases with the transaction size.

Both for Italy and the euro area, the decline of cash usage at the POS over time was observed for all the value payments; however, some differences still persist in the usage of the various instruments (fig. 3). As for low-value transactions (up to €30), cash remains by far the dominant payment instrument in Italy, accounting for 64% of such transactions in 2024 (76% in 2022 and 89% in 2019), followed by cards (30% of transactions in 2024 against 20% in 2022 and 10% in 2019). Mobile phone apps still play a much minor role (3%). This evidence contributes to the understanding of the overall dominant role of cash, as low-value payments account for 74% of all POS transactions.

Figure 3



Source: authors' calculations based on ECB SUCH 2016, SPACE 2019, 2022 and 2024 data.

Notes: "Other" includes bank cheques, credit transfers, loyalty points, vouchers and gift cards and other payment instruments.

When considering transactions between €30 and €50, cash remains the leading instrument, standing at 56% of such payments (54% in 2022; 61% in 2019), the incidence of cards slightly declined to 37% (41% in 2022; 38% in 2019) while that of mobile apps has increased to 4% (from 2% in 2022; negligible in 2019).

Cash is the most used instrument for transactions between €50 and €100, accounting for 44% of all payments (45% in 2022; 54% in 2019), while the share of mobile payments has increased to 6% (2% in 2022; negligible in 2019). Finally, non-cash-payments (cards and mobile) are used for the bulk of high-value payments (over €100), accounting for 55% (54% in 2022; 45% in 2019), while the role of cash has progressively declined (it accounts only for 32% of payments, from 35% in 2022 and 40 % in 2019).

In the euro area the usage of cash at the POS is lower if compared to Italy for all ranges of the transaction value. However, albeit substantial differences still persist especially for low-value payments, the Italian gap in cash usage for transactions higher than €50 is narrowing, thus suggesting an ongoing converge process towards the euro area picture.

Differences in payment habits among population groups and across Italian regions are limited. Across all regions, cash is the most frequently used payment instrument at POS, followed by cards and mobile payments (fig. [A1.3](#)); these figures differ slightly from the national average. The gender gap is negligible, with men and women reporting similar shares of cash, card and mobile payments (fig. [A1.5](#)). Older people (over 65) exhibit a higher reliance on cash (66% of transactions by number and 58% by value), while younger individuals (under 24) show their cash usage to levels lower than those of other age groups. Furthermore, generation Z and millennials (aged 18–39) are also more likely to use innovative instruments like mobile payments (7% in terms of number of transactions). Educational and income disparities hold: less educated individuals and those with lower incomes rely heavily on cash, with both shares equal to 64% (figs [A1.5](#) and [A1.9](#)), respectively, by number of transactions, and 52% and 49% by value (figs [A1.6](#) and [A1.10](#)). While these gaps are important, the adoption of non-cash instruments is widespread across all population groups.

Payment habits differ considerably across locations and for different purposes. In terms of value of transactions (fig. [A1.12](#)), cash is largely used for home services (69%), for other type of services (67%) and for pick-up station (65%), which together accounts for about 9% of total POS expenditure. The value of card payments overtakes cash ones for travel purposes (65%), for taxes and public charges (64%), for other purchases (54%), for purchase of durable goods (51%), and culture and entertainment (29%), which all combined account for 20% of total POS expenditures. The value of mobile payments is particularly relevant for travel purposes (22%), for purchases on the street (15%) and at vending or ticketing machine (8%), which together account for 13% of total POS expenditure.

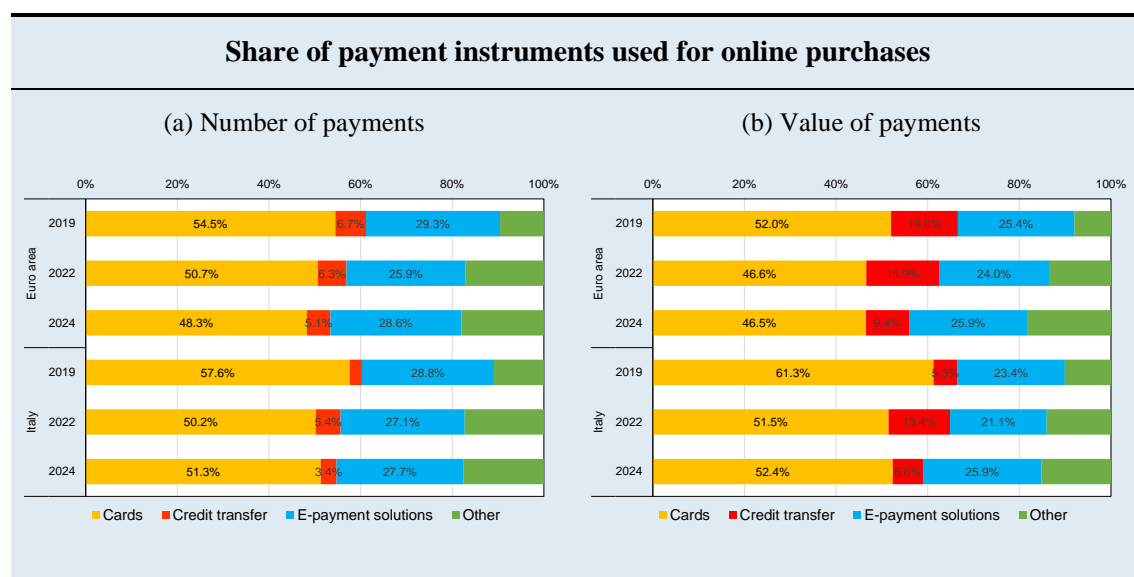
According to respondents' perception, the acceptance of cashless payment instruments at the POS has improved. The acceptance of cashless payments (fig. [A1.13](#); right panel) stands at 87% (80% in 2022, see Chart 46 of ECB, 2024), similarly to the euro area. Travel related purchases and culture and entertainment have the highest

rate of non-cash instruments acceptance (around 96%). The lowest acceptance is recorded for pick-up station (76%) and home services (77%). Participants also report their experience in the acceptance of their preferred payment method. Most of them (68%) always used their desired method, while 12% faced at least one refusal of mobile or card payment, while 6% reported that these instruments are not accepted below a certain value of the transaction. Finally, 7% of them experienced at least one case of cash non-acceptance (fig. [A1.13](#)).

3.2 Online payments

For online payments, cards continue to be the most widely used payment method. In terms of the number of transactions, the picture in Italy has remained broadly unchanged from 2022 (fig. 4a); card payments slightly increased to 51% in 2024 (50% in 2022; 58% in 2019), while they have somewhat declined in the euro area (48% in 2024; 51% in 2022; 54% in 2019). E-payment solutions⁹ have shown a marginal increase in Italy (28% in 2024; 27% in 2022; 29% in 2019) and a more pronounced rise in the euro area (29% in 2024; 26% in 2022). The share of credit transfers has remained small in Italy (3% in 2024; 5% in 2022; 3% in 2019) and in the euro area (5% in 2024; 6% in 2022; 7% in 2019). Notably, the category “other” payment methods, which includes direct debits, loyalty points, vouchers, gift cards, crypto assets, and other unidentified solutions, increased slightly both in Italy (18% in 2024; 17% in 2022) and in the euro area (18% in 2024; 17% in 2022).

Figure 4



Source: authors' calculations based on ECB SPACE 2019, 2022 and 2024 data.

In terms of the value of transactions (fig. 4b), cards remain the dominant payment method with 52% of transactions in Italy (51% in 2022; 61% in 2019) and 47% in the euro area (as in 2022). E-payment solutions have gained traction, increasing their share to 26% both

⁹ E-payment solutions refer to digital tools that allow people to make payments over the internet and include payment wallets (e.g. Satispay and BancomatPay), PayPal and other online or mobile apps. These solutions can be used to pay for products or services directly from a computer or smartphone.

in Italy (21% in 2022) and in the euro area (24% in 2022). Credit transfers have also seen a steady decrease in value in Italy, reaching 7% (13% in 2022), and in the euro area (9% in 2024; 16% in 2022).

The average value of transactions differs considerably across means of payment (fig. [A2.2](#)), standing at €106 for credit transfers, €57 for card transactions and €52 for e-payments, thus confirming that credit transfers are mainly used for high-value payments.

Cards are the most widely used payment method across different types of purchase, but the relevance of non-card instruments varies. For instance, the use of cards in terms of volume (fig. [A2.11](#)) ranges from 59% for durable goods to 43% for other purchases. E-payments represent the second most widely used method across all categories, particularly in sectors such as travel (32%), culture and entertainment and durable goods (28%). Credit transfers, although less commonly used, hold a not negligible share in specific contexts such as travel (6%) and other purchases (7%).

3.3 P2P payments

Cash is the most widely used payment instrument for P2P payments, followed by cards and mobile apps. Cash payments account for 44% of total P2P transactions in Italy (fig. [A3.1](#)), higher than 41% in the euro area.¹⁰ Cards and mobile apps have relevance in Italy, almost equal to cash, representing 43% of total P2P transactions, higher than 36% of the euro area. Credit transfers and instant payments play only a smaller role (5% and 3%, respectively).

In terms of value, cash loses its dominance to cards and mobile apps (34% and 40%, respectively), while credit transfers also become more important (16%), thus reaffirming that cash tends to be used to exchange low amounts, while cashless instruments, especially credit transfers, are used more for high amounts.

4. Recurring payments

In addition to day-to-day payments, consumers make recurring payments on a weekly, monthly, annual or other frequency. In this regard, Italian consumers have reported (fig. [A4.1](#)) that the most common recurring payment they make is for utilities (about 73%) and telephone and internet bills (70%), followed by subscriptions (36%), insurance (26%), rent (24%), taxes and public charges (20%), mortgage (19%), school, childcare, tuition and paying back debt or consumer loans (14%).

Direct debit is the most commonly used instrument for almost all types of recurring payment. In terms of number of transactions (fig. [A4.2](#)), Italian consumers use it mainly to pay back debts or loans (65%), for telephone/internet bills (63%), mortgages (57%), utilities (57%), subscriptions (44%), rent (38%) and taxes and public charges (32%).

¹⁰ In the 2024 SPACE survey, P2P transactions have been included in both the physical and online payment diary, whereas in the 2019 and 2022 surveys, P2P payments were included only in the physical payment diary. Therefore, the 2024 figures are not directly comparable to those in 2022 and 2019. Nevertheless, by considering P2P transactions related to the physical payment diary, cash payments in the 2024 SPACE survey account for 65% and 54% in terms of volume and value, respectively. On the contrary, the share of P2P payments made by cards and mobile has increased to 28% (from 7% in 2022).

Cards are also widely used, being the most commonly used means of paying for subscriptions (41%), school, childcare, tuition fees (39%) and insurance (34%), and ranking second in all other categories except rent and mortgage, where transfers play a greater role. In terms of value of transactions, the picture remains broadly unchanged, with credit transfers gaining market share, corroborating the view that this instrument is mainly used for high-value transactions. In the euro area, direct debits are the most widely used instrument, while, unlike in Italy, credit transfers are more important in terms of both volume and value.

5. Preferences for payment instruments

In Italy people prefer to pay with cashless payment instruments, especially cards for transactions at the POS and bank transfers for P2P payments. Italians strongly prefer cashless payment instruments at the POS. The majority of respondents say that they would pay with cards or other cashless methods (61%; fig. 5a) if they were free to choose how to pay in a shop.¹¹ Italy is therefore one of the countries with the highest preference for cashless payment in the euro area (55%). More specifically, among those who prefer cashless payment,¹² debit and credit cards (78%) are widely the preferred method, as in the euro area (81%). Cash is the preferred means of payment for only 20% of Italian respondents, slightly less than in the euro area (22%). Considering the actual behaviour at the POS, with 61% of transactions made in cash (see fig. 2), there is a discrepancy between respondents' stated preferences and their actual behaviour at the POS, mainly due to the lack of acceptance of alternative instruments by merchants, especially for low-value transactions, as pointed out by Di Iorio and Rocco (2025) for SPACE 2019.

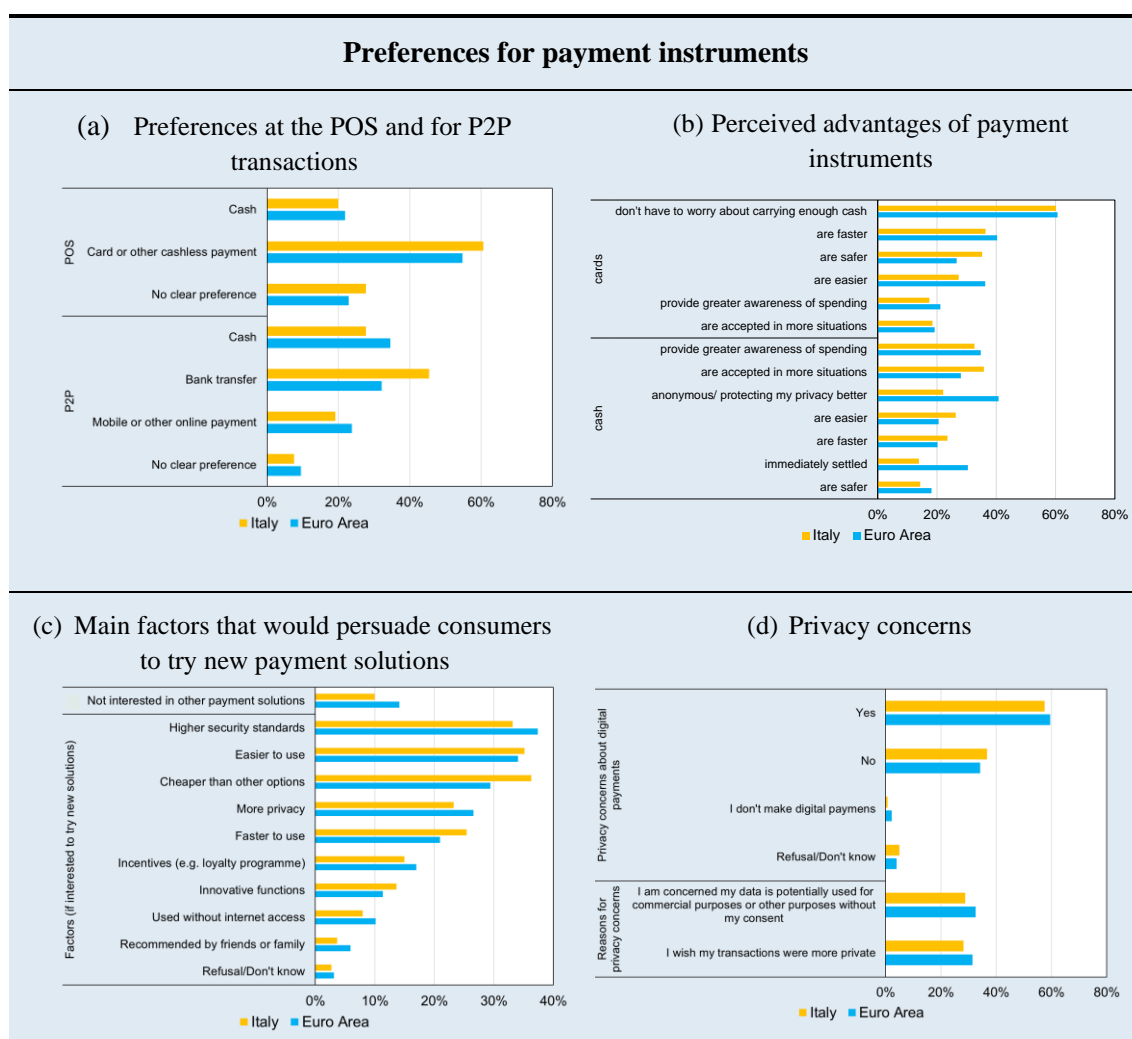
In 2024 the questionnaire included a new question to obtain more information about preferred payment methods for P2P transactions. In Italy, 45% of respondents prefer to use bank transfers, while only 28% of them prefer to use cash, compared to 35% in the euro area. The preference for cash for P2P payments is, therefore, higher than for transactions at POS, but less pronounced if compared to the euro area (fig. 5a).

As for the perceived main advantages of the various payment methods, Italian consumers reported that cash is widely accepted (36%) and it gives a clear overview of expenses (33%; fig. 5b), while only a limited number reported anonymity and privacy protection as a relevant issue (22% against 41% in the euro area). On the other hand, the main reasons for using cards are related to convenience (respondents do not need to carry cash with them; 60%), fast use (36%) and safety (35%), broadly in line with the euro area.

¹¹ The question for preferences is asked in a general way ("If you were offered various payment methods in a shop, what would be your preference?"), and no distinction is made in the question between high-value and low-value payments. This means that if respondents had a preference for cash specifically when making low-value payments, for example, their answers would not show this. In addition, the acceptance of different payment methods is not considered.

¹² Data for preferred non-cash payment in 2024 are not directly comparable to 2022 due to different specification of the answer categories.

Figure 5



Source: authors' calculations based on ECB SPACE 2024 data.

Preferences for different payment instruments exhibit small variability at territorial level and among population groups. The preference for cashless instruments at the POS (figs [A5.1](#) and [A5.2](#)) is lower in the South (ranking from 54% in Sicily and Sardinia to 58% in the other south regions) than in the North (more than 60%), higher for respondents younger than 24 year old (68%) as well as high-educated respondents (over 65%).

The majority of Italians still consider it important to pay with cash. Having the option to pay with cash remains very or fairly important for 58% of respondents in Italy (fig. [A6.21](#)), less than in the euro area (62%, see Chart 19 in ECB, 2024), but growing since 2022 (52%, see Bank of Italy, 2023), showing that Italian citizens again see cash as a relevant and important way of paying despite using it less. This perception is more pronounced across the central-southern regions and among self-employed, manual worker and people with lower income (figs [A6.23](#) and [A6.24](#)).

In Italy, there is interest in trying new payment solutions considering costs and easiness of use as key factors. For the first time, the survey asked to the consumers what factors would convince them to try out alternative payment solutions (fig. 5c). Italians are more open to trying new payment solutions, with only 10% saying they are not interested,

compared to 14% in the euro area (fig. 5c). They prioritize the costs of payment instruments, with 36% of respondents considering cheaper options to try out new payment solutions, higher than the 29% in the euro area, where cost is only the third most important factor, after security and ease of use. In Italy, ease of use is the second most important feature (35%), while there is less interest in security (33%) and privacy (23%). Interest in innovation, although not a key factor (14%), is higher than in the euro area (11%).

A majority of consumers report to be concerned about their privacy when performing digital payments. Among the factors driving preference or interest in trying a new payment solution, privacy appears to be a minor issue for Italians compared to the area average. However, when asked a more specific question about privacy concerns (introduced in 2024), the percentage of Italian respondents concerned (58%; fig. 5d) is slightly lower compared to the euro area (60%). In both Italy and the euro area, concerns are evenly split between keeping transactions private and the risk of data being used for commercial purposes.

6. Access to cash

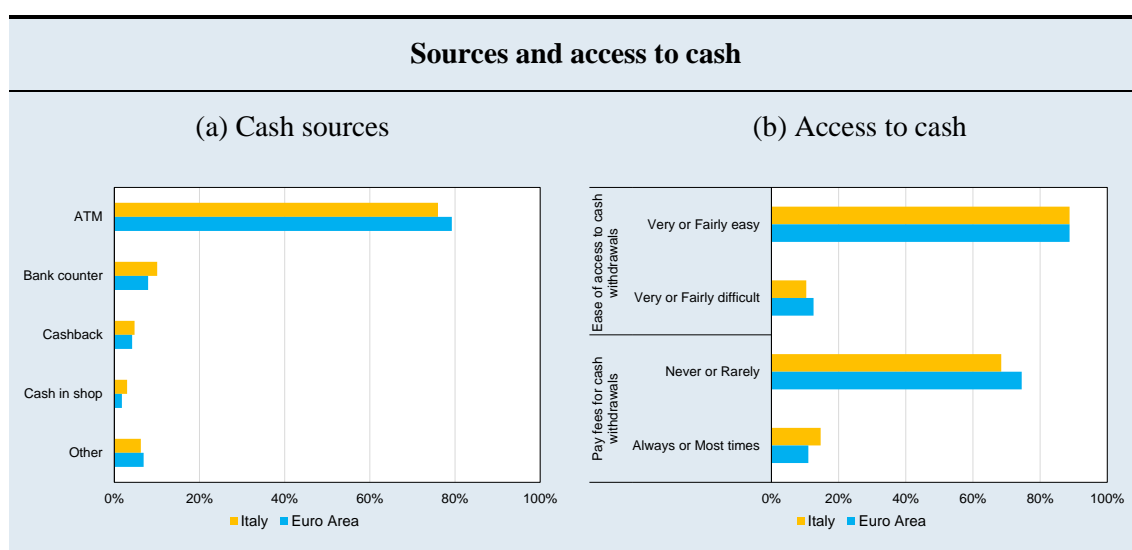
In Italy, access to cash remains largely satisfactory and still dependent on the ATM network. People obtain cash from various sources (fig. 6), with ATMs still representing the main channel (76%), although it shows a slight decrease compared to 2022¹³ (77%) and to the euro area (79%). Withdrawals via bank counters are the second option both in Italy and at the euro area level accounting for 10% and 8%, respectively. In particular, 62% of respondents claim they normally withdraw cash in combination with other activities (e.g. going to work, shopping, etc.), while 31% declare to make a special journey from home to the ATM or the bank (fig. [A6.5](#)).

Cash provision in physical shops and from retailers – such as cashback and cash-in-shop services – is still not common neither in Italy nor in the euro area (5% and 3%; 4% and 2% of total withdrawals; respectively fig. 6a). Respondents were also asked with a specific question whether they had the possibility to withdraw cash at shop counters: around 42% of respondents declare to have access to cash-in-shop service (fig. [A6.25](#)). However, only 24% of interviewed claim to use it.

In Italy, 89% of respondents perceive access to the cash withdrawals as very or fairly easy (fig. 6b) while 10% of them report difficulty in access to cash, being one of the countries in the euro area with a lower rate of people stating the access to cash as difficult. Nevertheless, for Italy, perceived ease of access has shown a decrease since 2022.

¹³ In the SPACE 2024 survey, withdrawals are defined as “taking cash money out of an account” differing from 2022 where the question was more general also including “your cash-reserves”.

Figure 6



Source: authors' calculations based on ECB SPACE 2024 data.

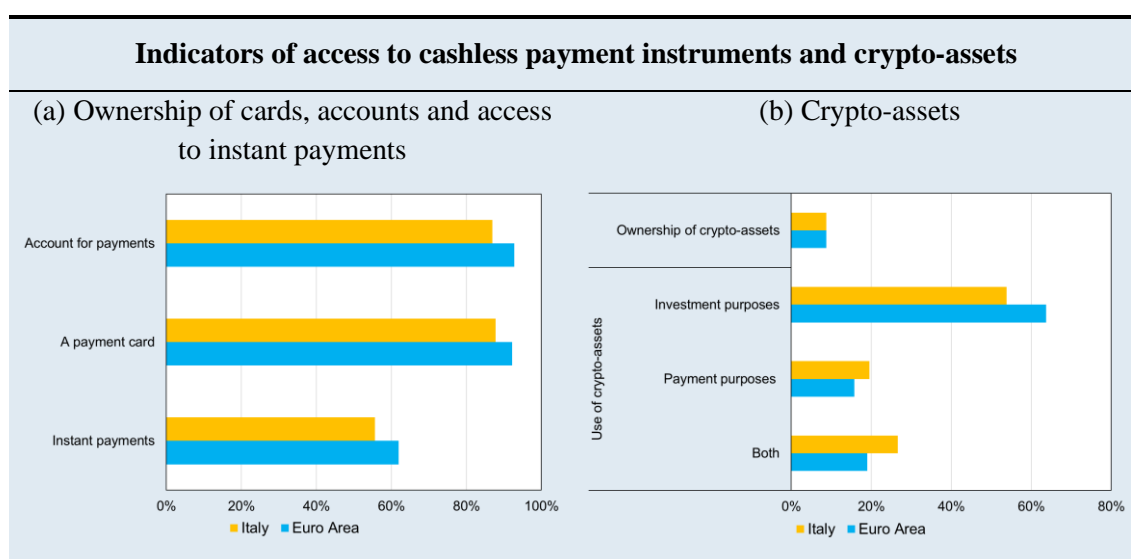
Replies to a specific question on the use of cash as a store of value suggest that 35% of respondents keep cash at home for precautionary reasons (fig. [A6.13](#)). This figure is more pronounced for younger people aged under 24 (45%; fig. [A6.14](#)). Almost all respondents hold less than €1,000 euros for precautionary purposes (fig. [A6.17](#)).

7. Access to non-cash means of payment

Access to non-cash means of payment is widespread. The survey also investigates consumers' access to an account for payments and access to non-cash means of payment, which are both relevant for financial inclusion considerations. The possession of a bank account for payments is common in Italy (87%; fig. 7a), although slightly lower than in the euro area (93%). The gap narrows when looking at the possession of a payment card (88% and 92%, respectively), even though the share of respondents who own a payment card decreased in Italy from 2022 (-4 p.p, see Bank of Italy, 2023). However, a similar trend has been observed also for almost all the euro area countries.

There is a north-south gap in payment card ownership. Payment card ownership shows a north-south gap, which stands at 3 p.p. (88% and 85% in the northern regions and in the southern region, respectively; fig. [A7.1](#)). When looking at socio-demographic characteristics (figs [A7.2](#), [A7.3](#) and [A7.4](#)), low-income and unemployed people report the lowest rate of card possession (81%), followed by individuals with lower levels of education and young people aged under 24 (about 86% and 87%, respectively).

More than one in two respondents report to have access to instant payments. The SEPA Instant Credit Transfer (SCT Inst) enables pan-European credit transfers with the funds made available on the account of the recipient in less than ten seconds, 24 hours a day, 365 days a year. According to the survey, instant payments are available to 56% of respondents in Italy, compared to 62% in the euro area (fig. 7a).

Figure 7

7.1 Ownership of crypto-assets

The ownership of crypto-assets among the public remains low in Italy. Despite the increasing interest in crypto-assets, their uptake among the general population has grown to 9% in 2024 (2% in 2022; fig. [A7.5](#)), aligning with the euro area average of 9% (4% in 2022), where a similar trend is observed.¹⁴ The possession of crypto-assets is more common among males (9%; fig. [A7.6](#)), and generation Z and millennials (up to 39 years old, 12%).

Respondents who reported holding crypto-assets were also asked whether they used them for payments or investment purposes (fig. 7b). In Italy, crypto-assets are predominantly held for investment purposes (54% in 2024; 55% in 2022) and to a lesser extent for payments (20% in 2024; 15% in 2022). This pattern is less evident than in the euro area, where the dominance of investment purpose of owning crypto assets is even more pronounced, reaching 64% (70% in 2022), and payments purpose falls to 16% (10% in 2022; fig. 7b). However, an increasing interest in using crypto-assets only as means of payment is observed.

¹⁴ In 2022, the question on ownership of crypto-assets was a sub-item of the question about ownership of payment accounts and cards. In 2024, ownership of crypto-assets was covered as a separate question. This change in the questionnaire could have had an impact on reporting of crypto-asset ownership.

References

Bank of Italy (2023), Report on the payment attitudes of consumers in Italy: results from the ECB SPACE 2022 survey, Markets, Infrastructures, Payment Systems, Institutional Issues no. 42, November 2023.

Coletti, G., A. Di Iorio, E. Pimpini and G. Rocco (2022), Report on the payment attitudes of consumers in Italy: results from ECB surveys, Bank of Italy Markets, Infrastructures, Payment Systems, Institutional Issues no. 21, March 2022.

Di Iorio, A. and G. Rocco (2025), Easier said than done: why Italians pay in cash while preferring cashless, *International Journal of Central Banking*, 21(3), 155-184.

Esselink, H. and L. Hernandez (2017), The use of cash by households in the euro area (SUCH 2016), ECB Occasional Paper Series no. 201, November 2017.

European Central Bank – ECB (2020), Study on the payment attitudes of consumers in the euro area (SPACE 2019), December 2020.

European Central Bank – ECB (2022), Study on the payment attitudes of consumers in the euro area (SPACE 2022), December 2022.

European Central Bank – ECB (2024), Study on the payment attitudes of consumers in the euro area (SPACE 2024), December 2024.

Rocco, G. (2019), The use of cash in Italy: evidence from the ECB Study on the use of cash by households, Bank of Italy Occasional Papers no. 481, January 2019.

Appendix: additional figures

This part of the paper is aimed at providing the reader with a comprehensive set of charts in order to draw a more detailed outline of Italians' payment habits.

Following the same path as Sections 3 to 7 of the main text, the sequence of the figures starts from the use of payment instruments in Italy in POS payments (Section A1) and then continues dealing with online payments and P2P transactions (Sections A2 and A3, respectively). A picture of recurring payments is outlined afterwards (Section A4), followed by an overview of consumers' payment preferences (Section A5). Access to cash in Italy is the core of the following part (Section A6). The appendix concludes with a focus on the access to payment instruments such as cards or crypto-assets (Section A7).

In what follows, percentages may not add up to 100 per cent due to rounding. Moreover, the subdivision into Italian macro-regions is aimed at achieving representativeness of the population of the sample.

List of Charts

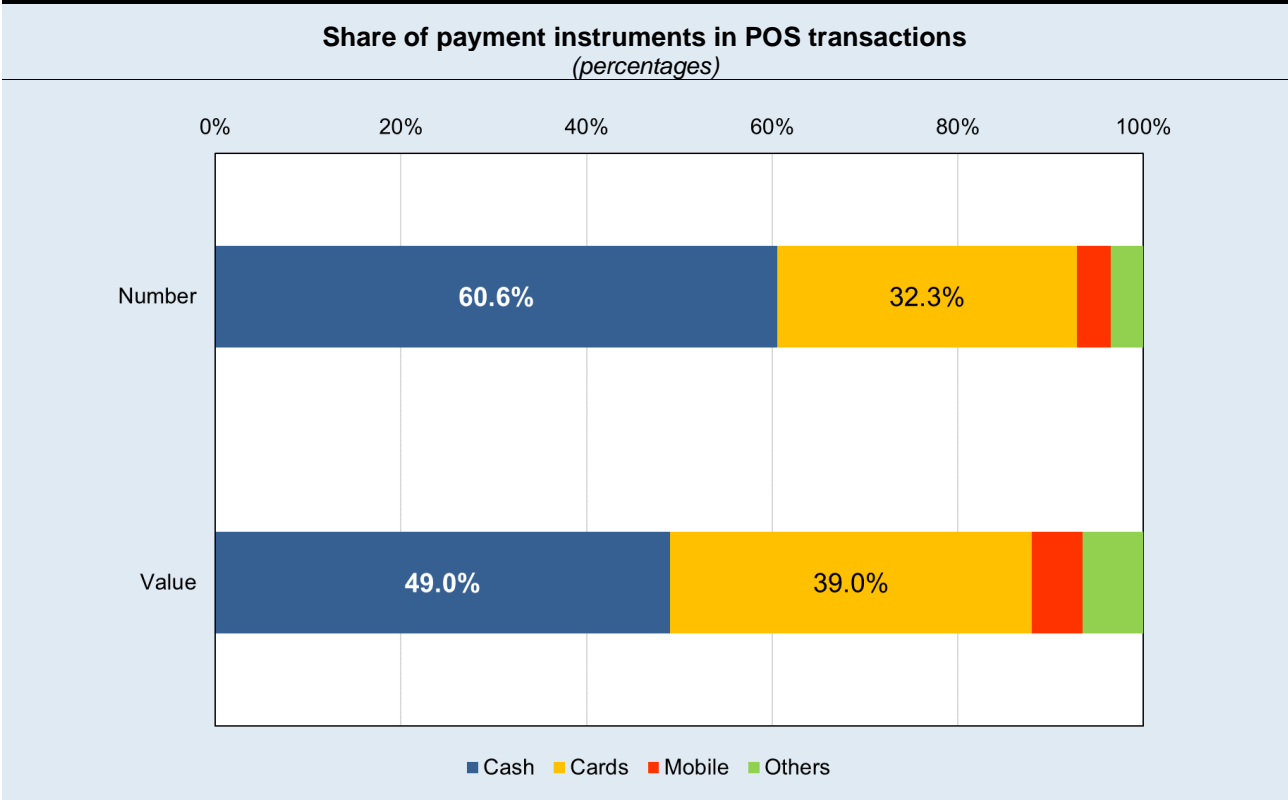
<i>A1. Use of payment instruments in Italy – Point of sale (POS)</i>	27
Fig. A1.1. Share of payment instruments in POS transactions.....	27
Fig. A1.2. Frequency distribution of POS transaction value by payment instrument	28
Fig. A1.3. Use of payment instruments by geographical area: number of transactions	29
Fig. A1.4. Use of payment instruments by geographical area: value of transactions.....	29
Fig. A1.5. Use of payment instruments by demographic: number of transactions.....	30
Fig. A1.6. Use of payment instruments by demographic: value of transactions	30
Fig. A1.7. Use of payment instruments by occupation: number of transactions	31
Fig. A1.8. Use of payment instruments by occupation: value of transactions	31
Fig. A1.9. Use of payment instruments by income group: number of transactions	32
Fig. A1.10. Use of payment instruments by income group: value of transactions	32
Fig. A1.11. Payments by place of purchase (left panel) and by place of purchase and instrument (right panel): number of transactions	33
Fig. A1.12. Payments by place of purchase (left panel) and by place of purchase and instrument (right panel): value of transactions	33
Fig. A1.13. Share of POS transactions where cash (left panel) or a cashless instrument (right panel) is accepted by place of purchase	34
Fig. A1.14. Average value of POS transactions by place of purchase	34
<i>A2. Use of payment instruments in Italy – online payments</i>	35
Fig. A2.1. Share of payment instruments in online payments.....	35
Fig. A2.2. Average value of online transactions per payment instrument.....	35
Fig. A2.3. Use of payment instruments in online payments by geographical area: number of transactions	36
Fig. A2.4. Use of payment instruments in online payments by geographical area: value of transactions.....	36
Fig. A2.5. Use of payment instruments in online payments by demographic: number of transactions ..	37
Fig. A2.6. Use of payment instruments by demographic: value of transactions	37
Fig. A2.7. Use of payment instruments in online payments by occupation: number of transactions.....	38
Fig. A2.8. Use of payment instruments in online payments by occupation: value of transactions	38
Fig. A2.9. Use of payment instruments in online payments by income group: number of transactions .	39
Fig. A2.10. Use of payment instruments in online payments by income group: value of transactions...	39
Fig. A2.11. Online payments by product type (left panel) and by product type and instrument (right panel): number of transactions.....	40
Fig. A2.12. Online payments by product type (left panel) and by product type and instrument (right panel): value of transactions	40

<i>A3. Use of payment instruments in Italy – P2P payments</i>	<i>41</i>
Fig. A3.1. Share of payment instruments in P2P transactions.....	41
Fig. A3.2. Average value of P2P transactions per payment instrument	41
Fig. A3.3. Use of payment instruments in P2P transactions by geographical area: number of transactions	42
Fig. A3.4. Use of payment instruments in P2P transactions by geographical area: value of transactions	42
Fig. A3.5. Use of payment instruments in P2P transactions by demographic: number of transactions ..	43
Fig. A3.6. Use of payment instruments in P2P transactions by demographic: value of transactions.....	43
Fig. A3.7. Use of payment instruments in P2P transactions by occupation: number of transactions	44
Fig. A3.8. Use of payment instruments in P2P transactions by occupation: value of transactions	44
Fig. A3.9. Use of payment instruments in P2P transactions by income group: number of transactions.	45
Fig. A3.10. Use of payment instruments in P2P transactions by income group: value of transactions ..	45
<i>A4. Use of payment instruments in Italy – Recurring payments</i>	<i>46</i>
Fig. A4.1. Recurring payments by type of bill: share of respondents and average amount	46
Fig. A4.2. Recurring payments by type of bill and payment instrument: number of transactions	47
Fig. A4.3. Recurring payments by type of bill and payment instrument: value of transactions.....	47
<i>A5. Consumers' payment preferences in Italy</i>	<i>48</i>
Fig. A5.1. Preferred payment instrument by geographical area	48
Fig. A5.2. Preferred payment instrument by demographic.....	48
Fig. A5.3. Preferred payment instrument by occupation.....	49
Fig. A5.4. Preferred payment instrument by income group	49
<i>A6. Access to cash in Italy.....</i>	<i>50</i>
Fig. A6.1. Ease of access to cash withdrawals at an ATM or a bank by geographical area.....	50
Fig. A6.2. Ease of access to cash withdrawals at an ATM or a bank by demographic	50
Fig. A6.3. Ease of access to cash withdrawals at an ATM or a bank by occupation	51
Fig. A6.4. Ease of access to cash withdrawals at an ATM or a bank by income group	51
Fig. A6.5. Journeys to make cash withdrawals by geographical area	52
Fig. A6.6. Journeys to make cash withdrawals by demographic.....	52
Fig. A6.7. Journeys to make cash withdrawals by occupation	53
Fig. A6.8. Journeys to make cash withdrawals by income group	53
Fig. A6.9. Reported frequency of ATM fees paid by geographical area.....	54
Fig. A6.10. Reported frequency of ATM fees paid by demographic	54
Fig. A6.11. Reported frequency of ATM fees paid by occupation	55
Fig. A6.12. Reported frequency of ATM fees paid by income group.....	55
Fig. A6.13. Share of respondents storing cash at home by geographical area	56
Fig. A6.14. Share of respondents storing cash at home by demographic	56

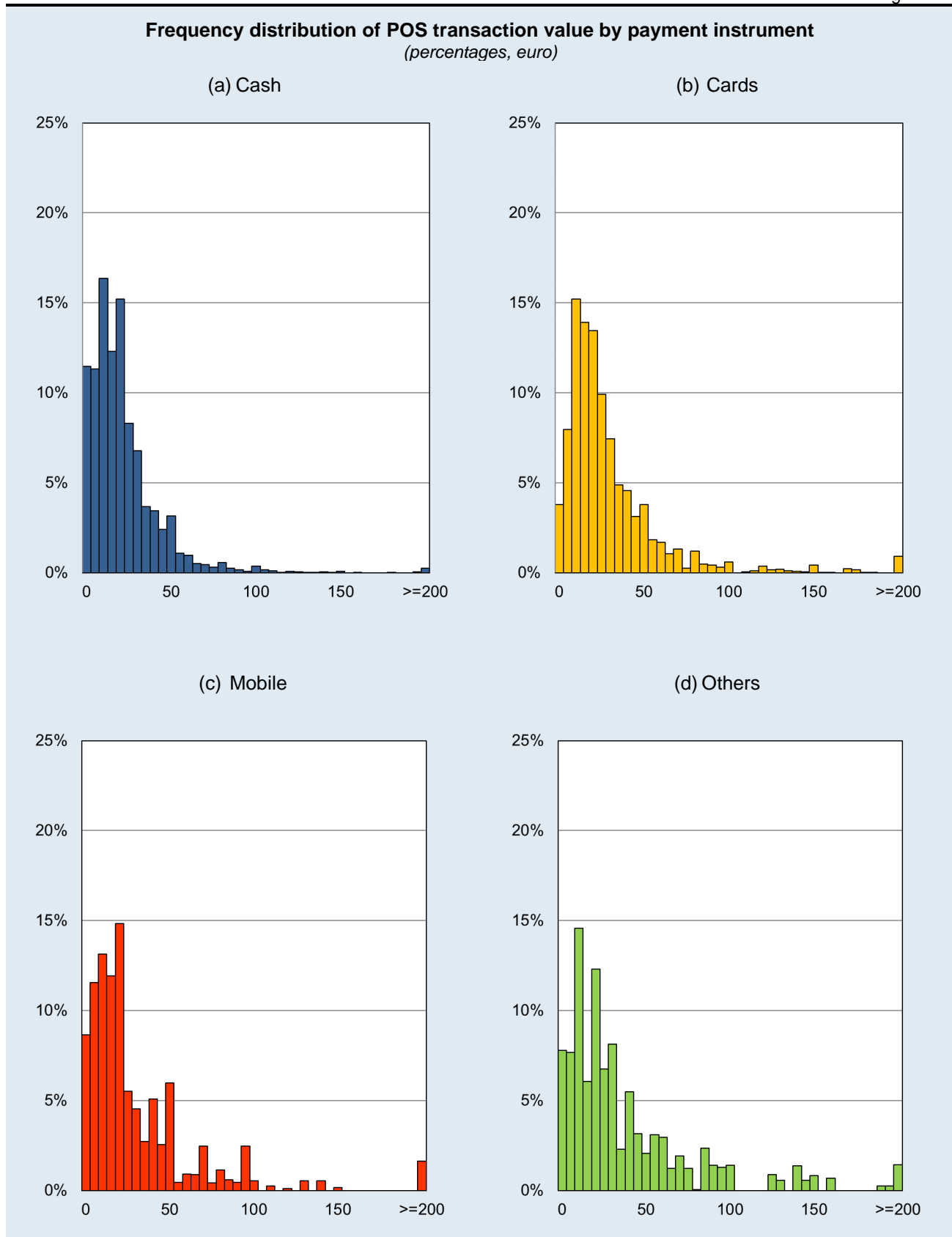
Fig. A6.15. Share of respondents storing cash at home by occupation	57
Fig. A6.16. Share of respondents storing cash at home by income group.....	57
Fig. A6.17. Amount of extra cash held by those who reported storing cash at home by geographical area	58
Fig. A6.18. Amount of extra cash held by those who reported storing cash at home by demographic ..	58
Fig. A6.19. Amount of extra cash held by those who reported storing cash at home by occupation.....	59
Fig. A6.20. Amount of extra cash held by those who reported storing cash at home by income group .	59
Fig. A6.21. The importance of having the option to pay with cash by geographical area	60
Fig. A6.22. The importance of having the option to pay with cash by demographic.....	60
Fig. A6.23. The importance of having the option to pay with cash by occupation	61
Fig. A6.24. The importance of having the option to pay with cash by income group.....	61
Fig. A6.25. Availability of the cash-in-shop option by geographical area	62
Fig. A6.26. Availability of the cash-in-shop option by demographic	62
Fig. A6.27. Availability of the cash-in-shop option by occupation.....	63
Fig. A6.28. Availability of the cash-in-shop option by income group	63
A7. Access to payment instruments in Italy.....	64
Fig. A7.1. Share of respondents who have a bank account or a payment card or a mobile payment instrument by geographical area.....	64
Fig. A7.2. Share of respondents who have a bank account or a payment card or a mobile payment instrument by demographic	64
Fig. A7.3. Share of respondents who have a bank account or a payment card or a mobile payment instrument by occupation.....	65
Fig. A7.4. Share of respondents who have a bank account or a payment card or a mobile payment instrument by income group	65
Fig. A7.5. Possession of crypto-assets by geographical area	66
Fig. A7.6. Possession of crypto-assets by demographic.....	66
Fig. A7.7. Possession of crypto-assets by occupation.....	67
Fig. A7.8. Possession of crypto-assets by income group	67
Fig. A7.9. Use of crypto-assets by geographical area	68
Fig. A7.10. Use of crypto-assets by demographic.....	68
Fig. A7.11. Use of crypto-assets by occupation	69
Fig. A7.12. Use of crypto-assets by income group.....	69
Fig. A7.13. Reported access to instant payments by geographical area	70
Fig. A7.14. Reported access to instant payments by demographic	70
Fig. A7.15. Reported access to instant payments by occupation.....	71
Fig. A7.16. Reported access to instant payments by income group	71

A1. Use of payment instruments in Italy – Point of sale (POS)

Fig. A1.1



Source: authors' calculations based on ECB SPACE survey data (2024).
Notes: the "Cards" category includes physical cards (debit, credit and prepaid cards); the "Mobile" category includes applications installed on mobile devices (e.g. smartphones) and wearables (e.g. smartwatches or fitness armbands), such as apps for card tokenisation (e.g. ApplePay and GooglePay) and digital wallets (e.g. Satispay, Bancomat Pay, PayPal); the "Others" category includes credit transfers, bank cheques, direct debits, loyalty points, vouchers, gift cards, crypto-assets and other payment instruments.

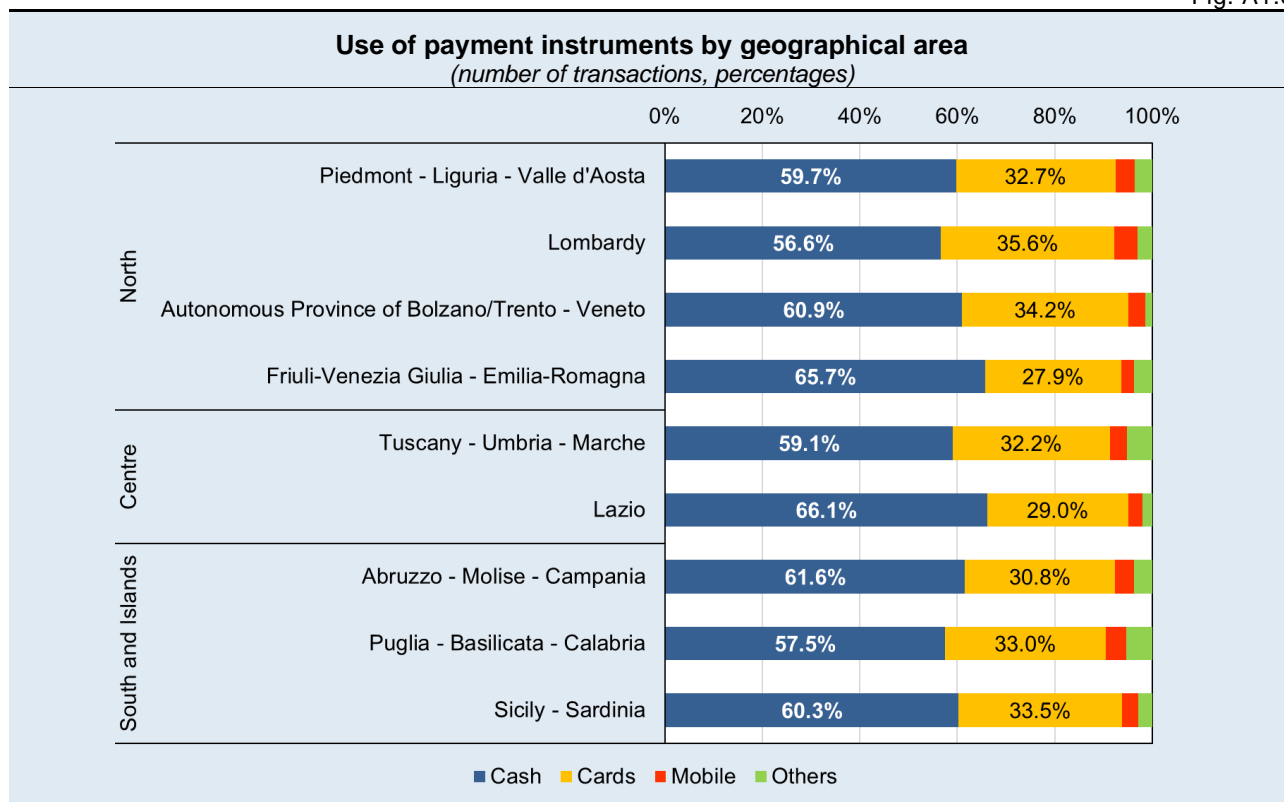


Source: authors' calculations based on ECB SPACE survey data (2024).

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A1. Use of payment instruments in Italy – Point of sale (POS)

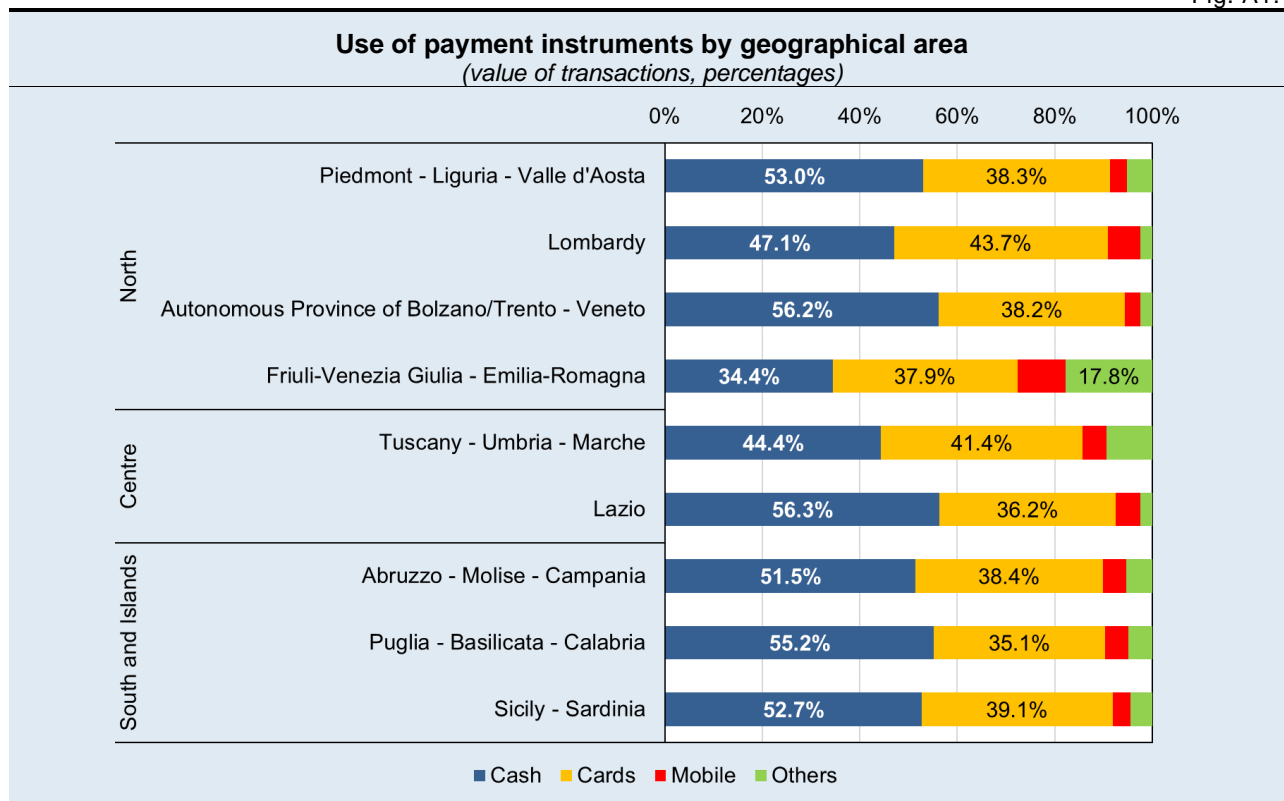
Fig. A1.3



Source: authors' calculations based on ECB SPACE survey data (2024).

Notes: the "Cards" category includes physical cards (debit, credit and prepaid cards); the "Mobile" category includes applications installed on mobile devices (e.g. smartphones) and wearables (e.g. smartwatches or fitness armbands), such as apps for card tokenisation (e.g. ApplePay and GooglePay) and digital wallets (e.g. Satispay, Bancomat Pay, PayPal); the "Others" category includes credit transfers, bank cheques, direct debits, loyalty points, vouchers, gift cards, crypto-assets and other payment instruments.

Fig. A1.4

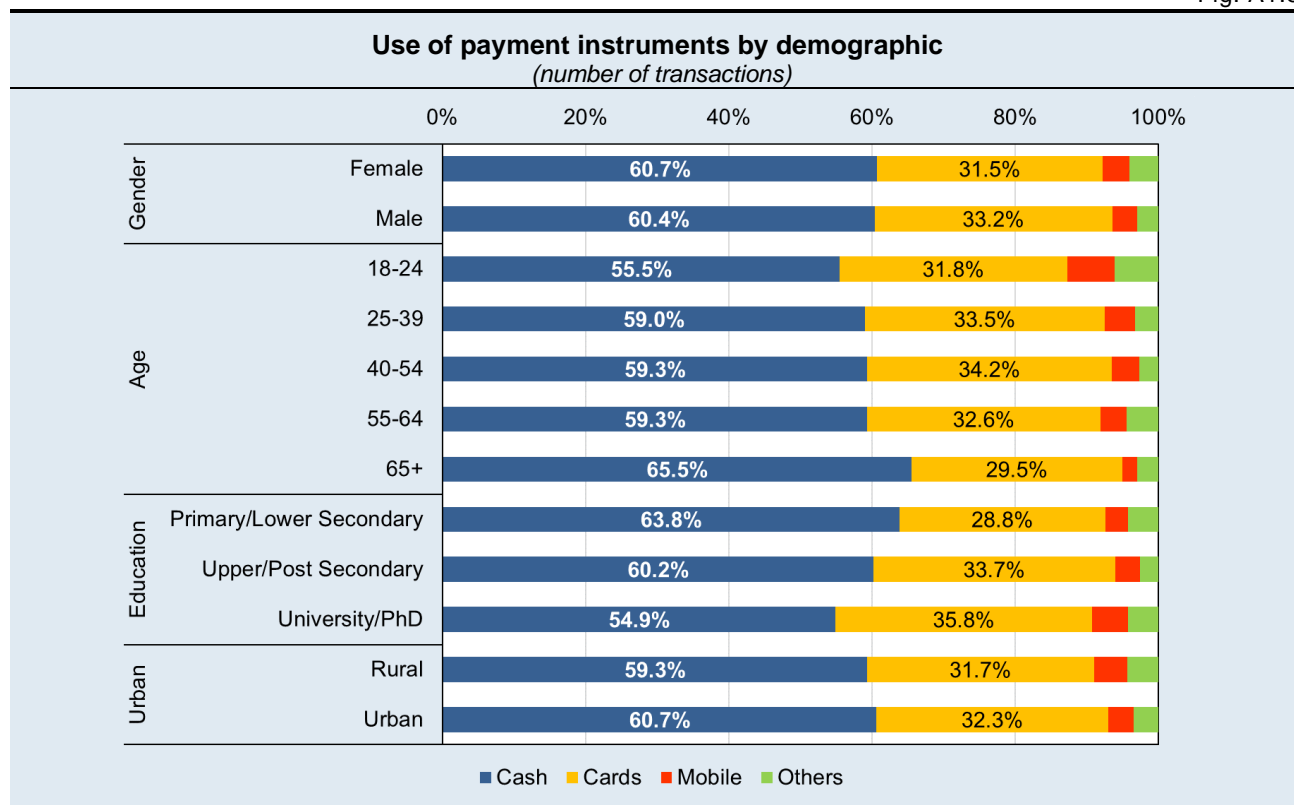


Source: authors' calculations based on ECB SPACE survey data (2024).

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A1. Use of payment instruments in Italy – Point of sale (POS)

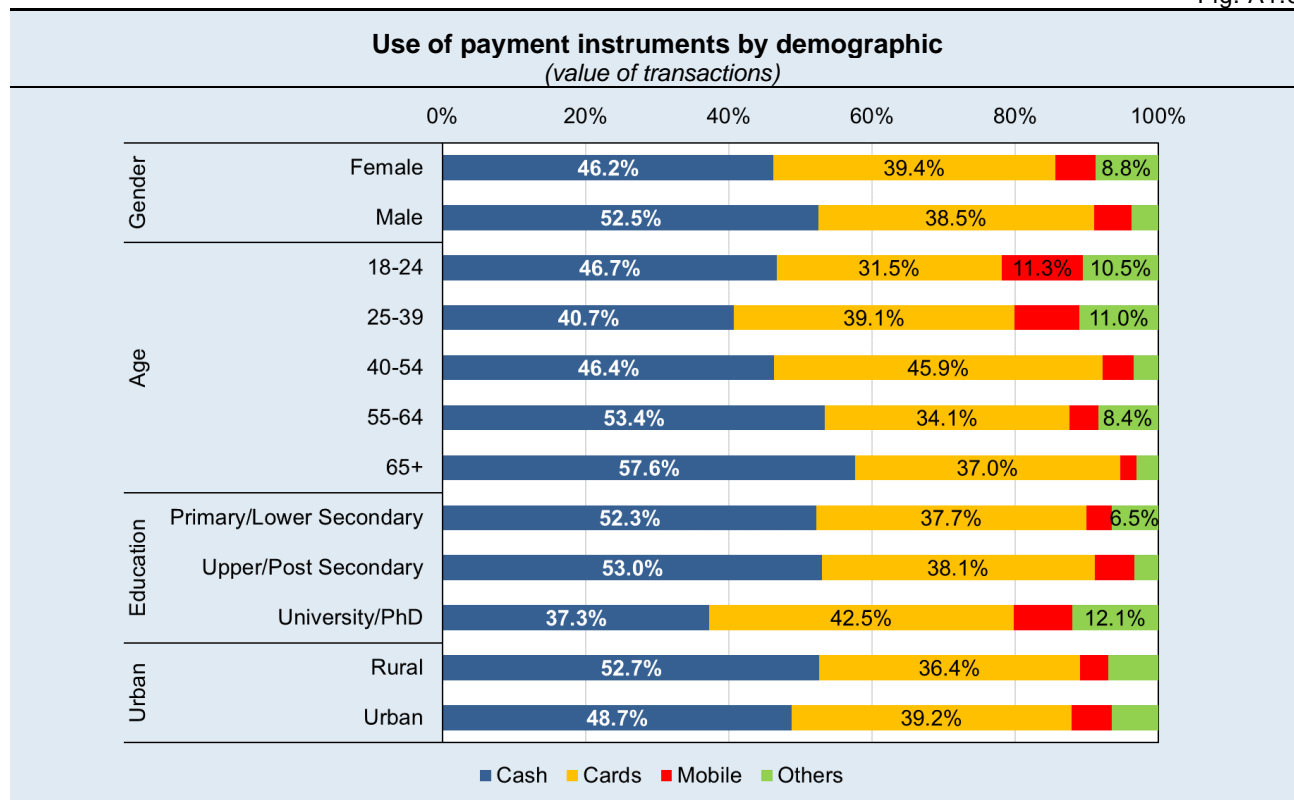
Fig. A1.5



Source: authors' calculations based on ECB SPACE survey data (2024).

Notes: the "Cards" category includes physical cards (debit, credit and prepaid cards); the "Mobile" category includes applications installed on mobile devices (e.g. smartphones) and wearables (e.g. smartwatches or fitness armbands), such as apps for card tokenisation (e.g. ApplePay and GooglePay) and digital wallets (e.g. Satispay, Bancomat Pay, PayPal); the "Others" category includes credit transfers, bank cheques, direct debits, loyalty points, vouchers, gift cards, crypto-assets and other payment instruments.

Fig. A1.6

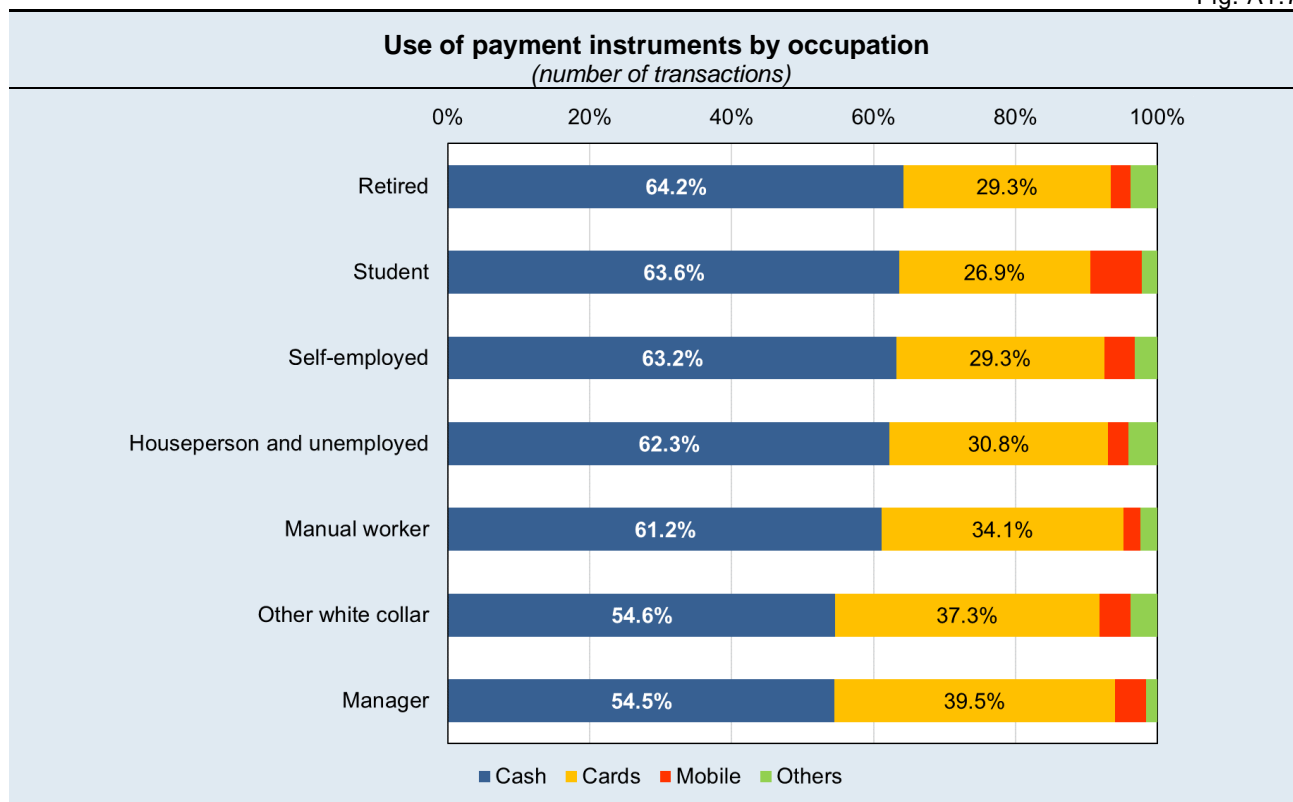


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A1. Use of payment instruments in Italy – Point of sale (POS)

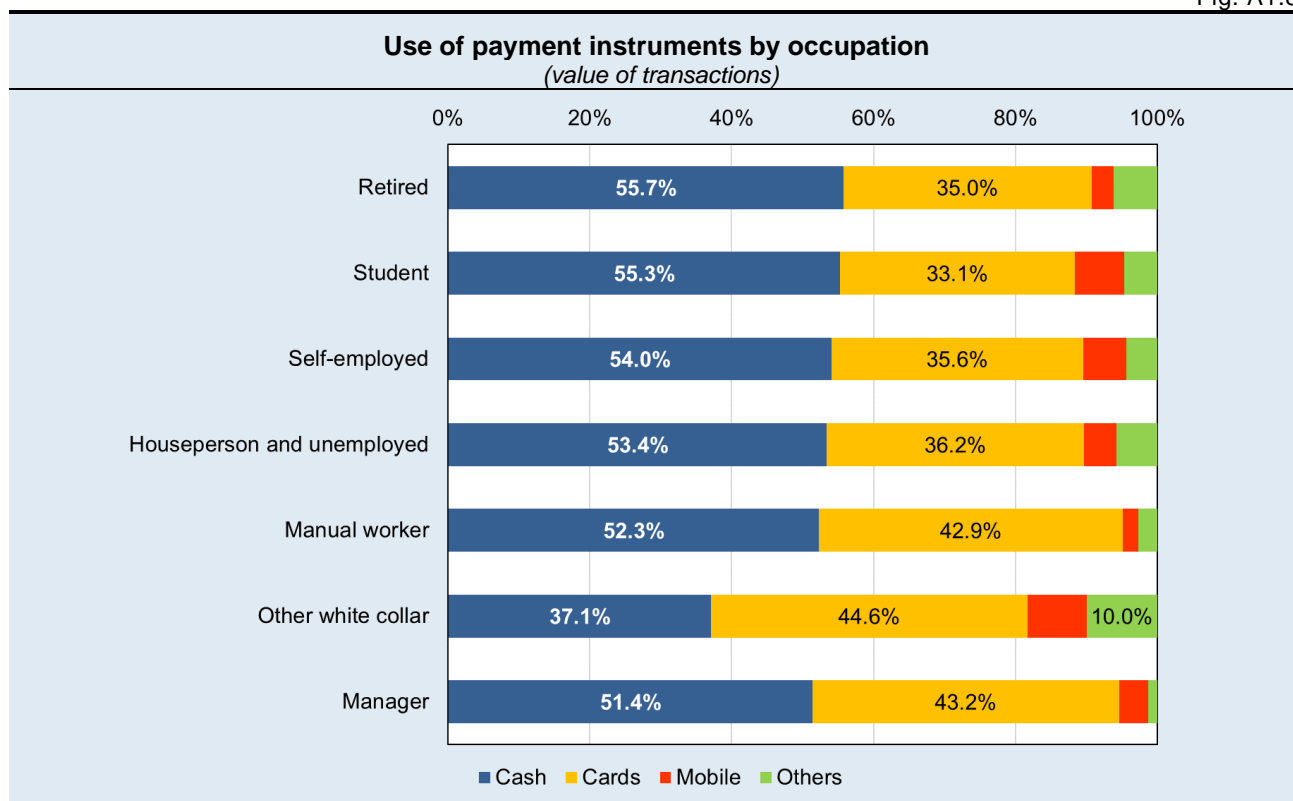
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Source: authors' calculations based on ECB SPACE survey data (2024).

Notes: the "Cards" category includes physical cards (debit, credit and prepaid cards); the "Mobile" category includes applications installed on mobile devices (e.g. smartphones) and wearables (e.g. smartwatches or fitness armbands), such as apps for card tokenisation (e.g. ApplePay and GooglePay) and digital wallets (e.g. Satispay, Bancomat Pay, PayPal); the "Others" category includes credit transfers, bank cheques, direct debits, loyalty points, vouchers, gift cards, crypto-assets and other payment instruments.

Fig. A1.8

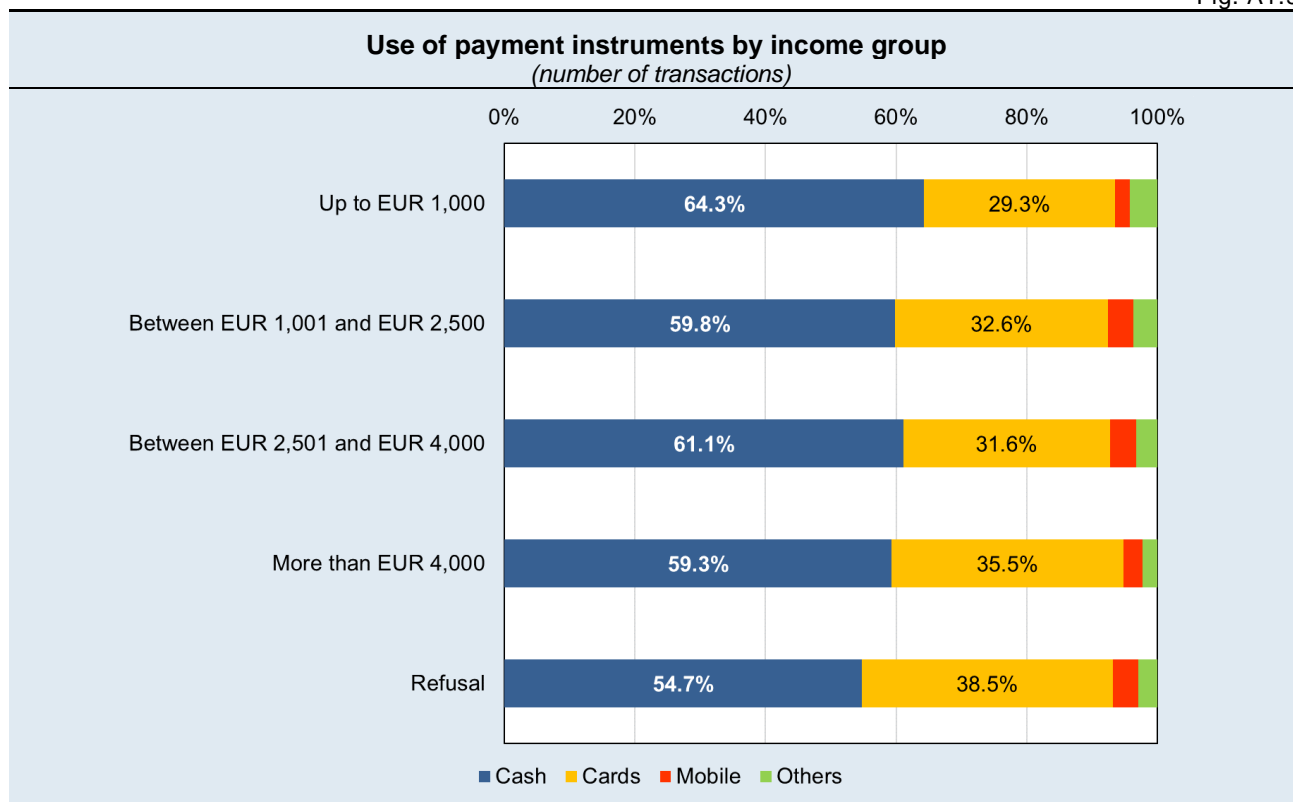


Source: authors' calculations based on ECB SPACE survey data (2024).

Notes: the "Cards" category includes physical cards (debit, credit and prepaid cards); the "Mobile" category includes applications installed on mobile devices (e.g. smartphones) and wearables (e.g. smartwatches or fitness armbands), such as apps for card tokenisation (e.g. ApplePay and GooglePay) and digital wallets (e.g. Satispay, Bancomat Pay, PayPal); the "Others" category includes credit transfers, bank cheques, direct debits, loyalty points, vouchers, gift cards, crypto-assets and other payment instruments..

A1. Use of payment instruments in Italy – Point of sale (POS)

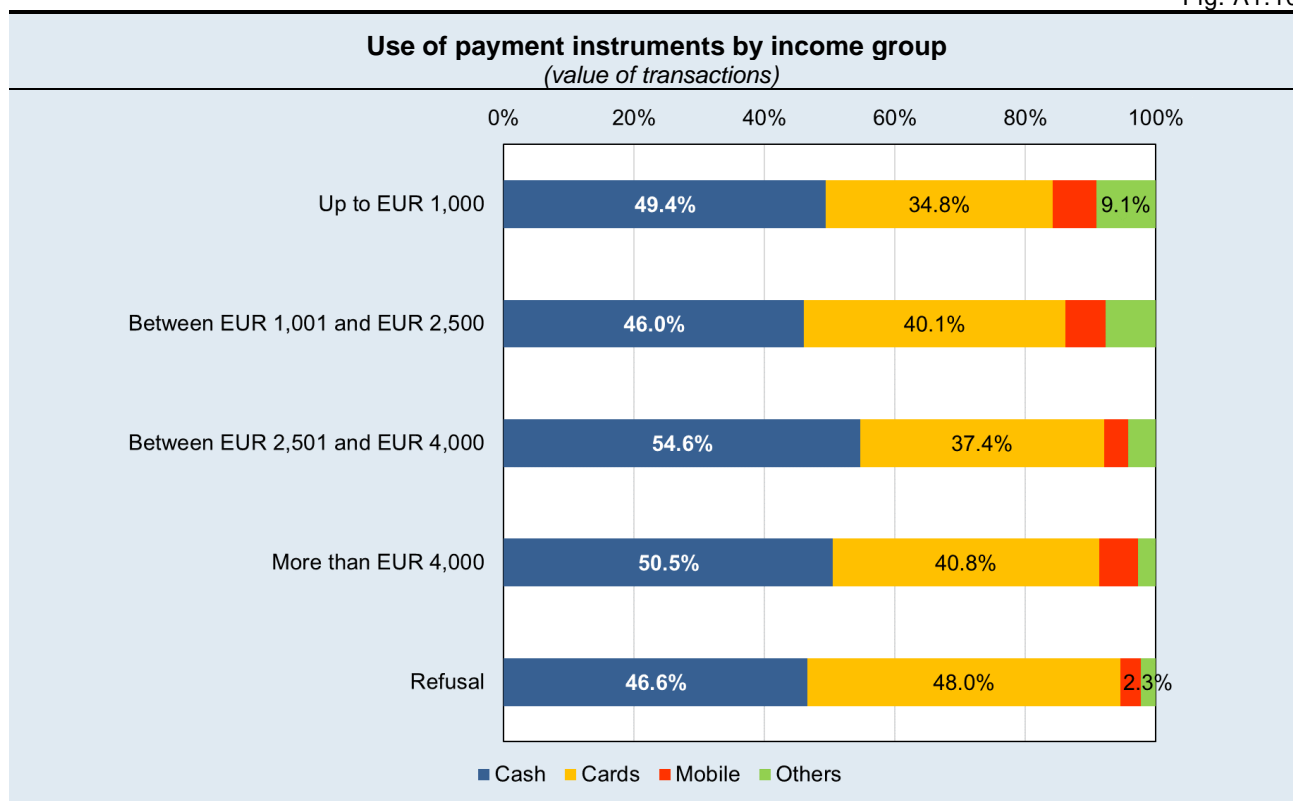
Fig. A1.9



Source: authors' calculations based on ECB SPACE survey data (2024).

Notes: the "Cards" category includes physical cards (debit, credit and prepaid cards); the "Mobile" category includes applications installed on mobile devices (e.g. smartphones) and wearables (e.g. smartwatches or fitness armbands), such as apps for card tokenisation (e.g. ApplePay and GooglePay) and digital wallets (e.g. Satispay, Bancomat Pay, PayPal); the "Others" category includes credit transfers, bank cheques, direct debits, loyalty points, vouchers, gift cards, crypto-assets and other payment instruments.

Fig. A1.10

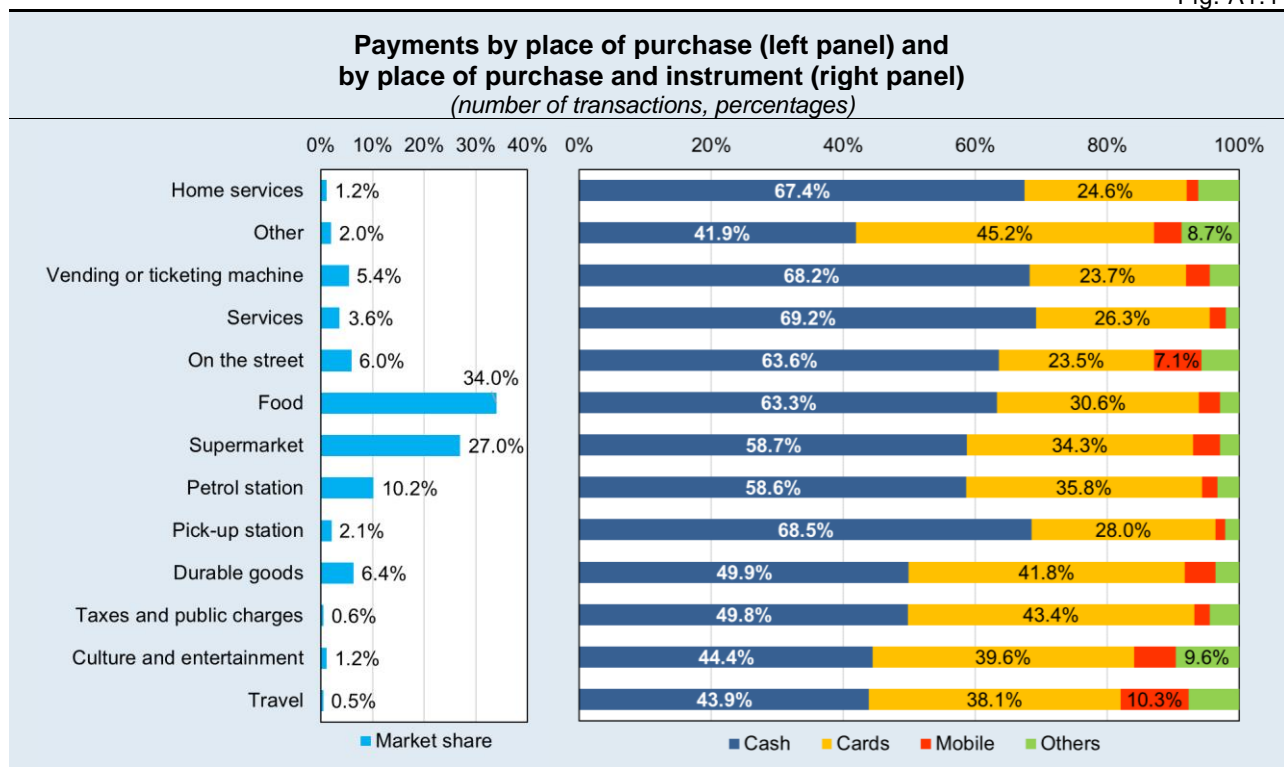


Source: authors' calculations based on ECB SPACE survey data (2024).

Notes: the "Cards" category includes physical cards (debit, credit and prepaid cards); the "Mobile" category includes applications installed on mobile devices (e.g. smartphones) and wearables (e.g. smartwatches or fitness armbands), such as apps for card tokenisation (e.g. ApplePay and GooglePay) and digital wallets (e.g. Satispay, Bancomat Pay, PayPal); the "Others" category includes credit transfers, bank cheques, direct debits, loyalty points, vouchers, gift cards, crypto-assets and other payment instruments.

A1. Use of payment instruments in Italy – Point of sale (POS)

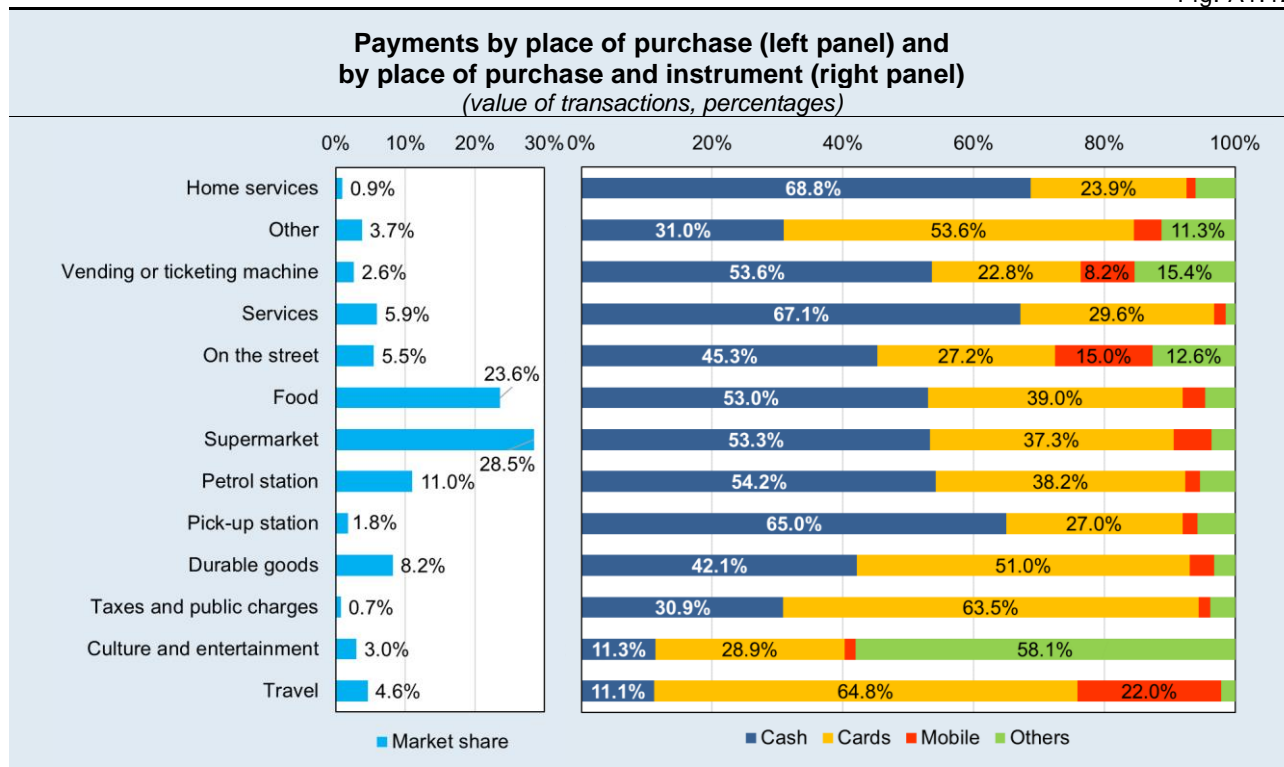
Fig. A1.11



Source: authors' calculations based on ECB SPACE survey data (2024).

Notes: the "Cards" category includes physical cards (debit, credit and prepaid cards); the "Mobile" category includes applications installed on mobile devices (e.g. smartphones) and wearables (e.g. smartwatches or fitness armbands), such as apps for card tokenisation (e.g. ApplePay and GooglePay) and digital wallets (e.g. Satispay, Bancomat Pay, PayPal); the "Others" category includes credit transfers, bank cheques, direct debits, loyalty points, vouchers, gift cards, crypto-assets and other payment instruments.

Fig. A1.12

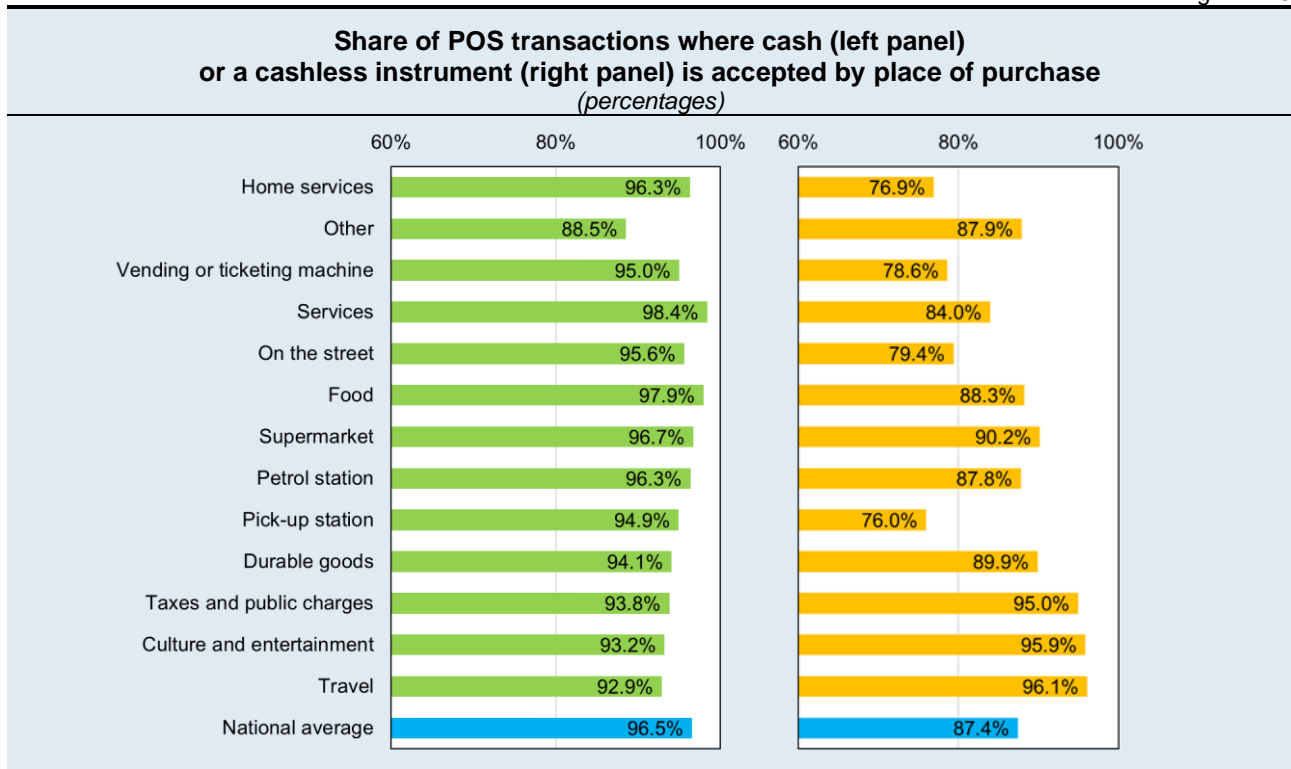


Source: authors' calculations based on ECB SPACE survey data (2024).

Notes: the "Cards" category includes physical cards (debit, credit and prepaid cards); the "Mobile" category includes applications installed on mobile devices (e.g. smartphones) and wearables (e.g. smartwatches or fitness armbands), such as apps for card tokenisation (e.g. ApplePay and GooglePay) and digital wallets (e.g. Satispay, Bancomat Pay, PayPal); the "Others" category includes credit transfers, bank cheques, direct debits, loyalty points, vouchers, gift cards, crypto-assets and other payment instruments.

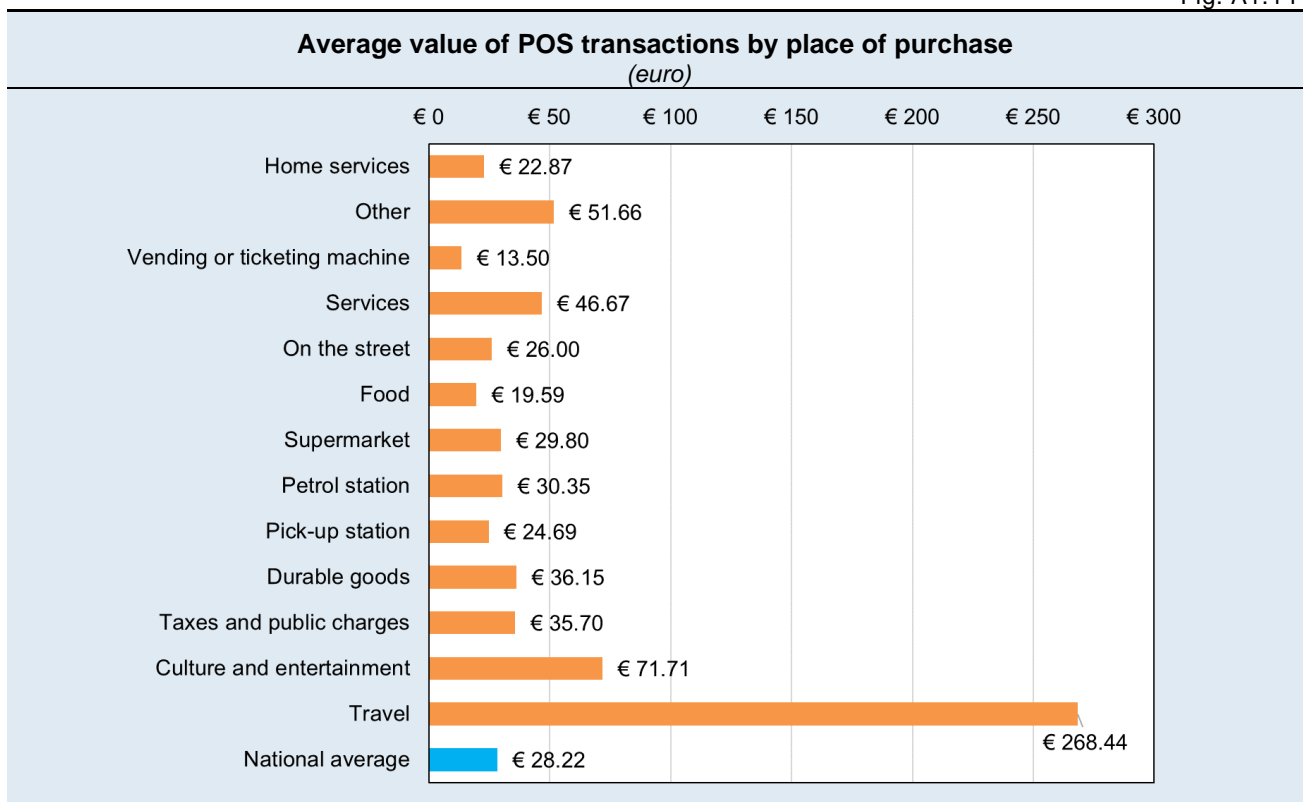
A1. Use of payment instruments in Italy – Point of sale (POS)

Fig. A1.13



Source: authors' calculations based on ECB SPACE survey data (2024).

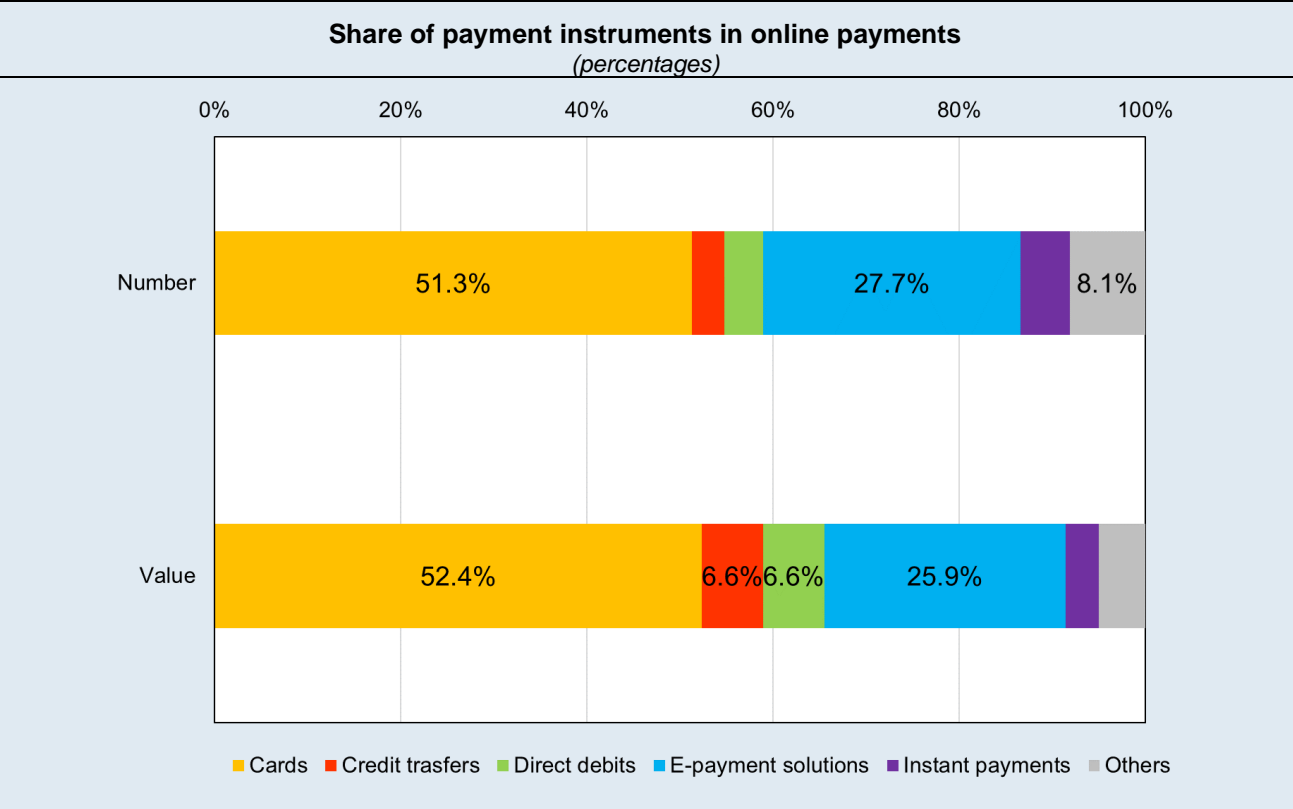
Fig. A1.14



Source: authors' calculations based on ECB SPACE survey data (2024).

A2. Use of payment instruments in Italy – online payments

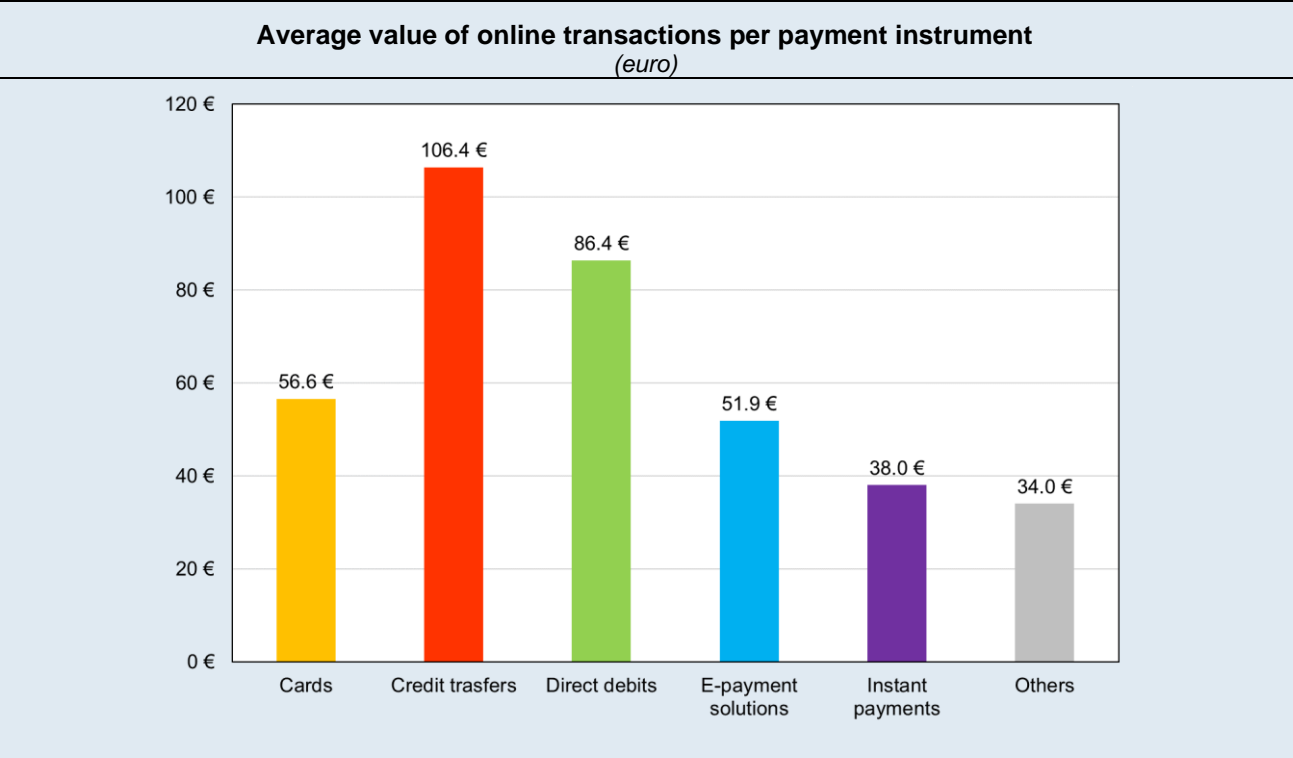
Fig. A2.1



Source: authors' calculations based on ECB SPACE survey data (2024).

Notes: the 'E-payment solutions' category includes PayPal and other online or mobile payment methods; the 'Others' category includes bank cheques, loyalty points, vouchers and gift cards, crypto-assets, BNPL and other payment instruments.

Fig. A2.2

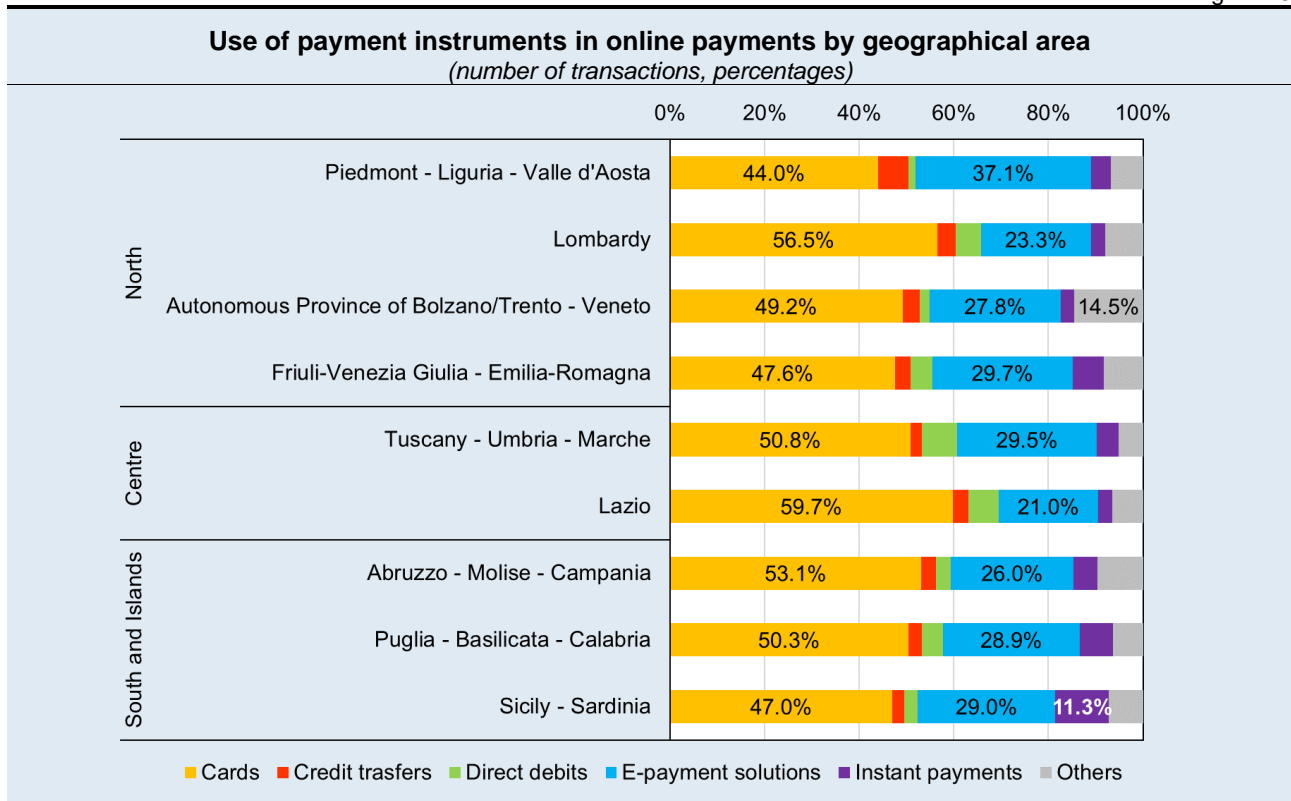


Source: authors' calculations based on ECB SPACE survey data (2024).

Notes: the 'E-payment solutions' category includes PayPal and other online or mobile payment methods; the 'Others' category includes bank cheques, loyalty points, vouchers and gift cards, crypto-assets, BNPL and other payment instruments.

A2. Use of payment instruments in Italy – online payments

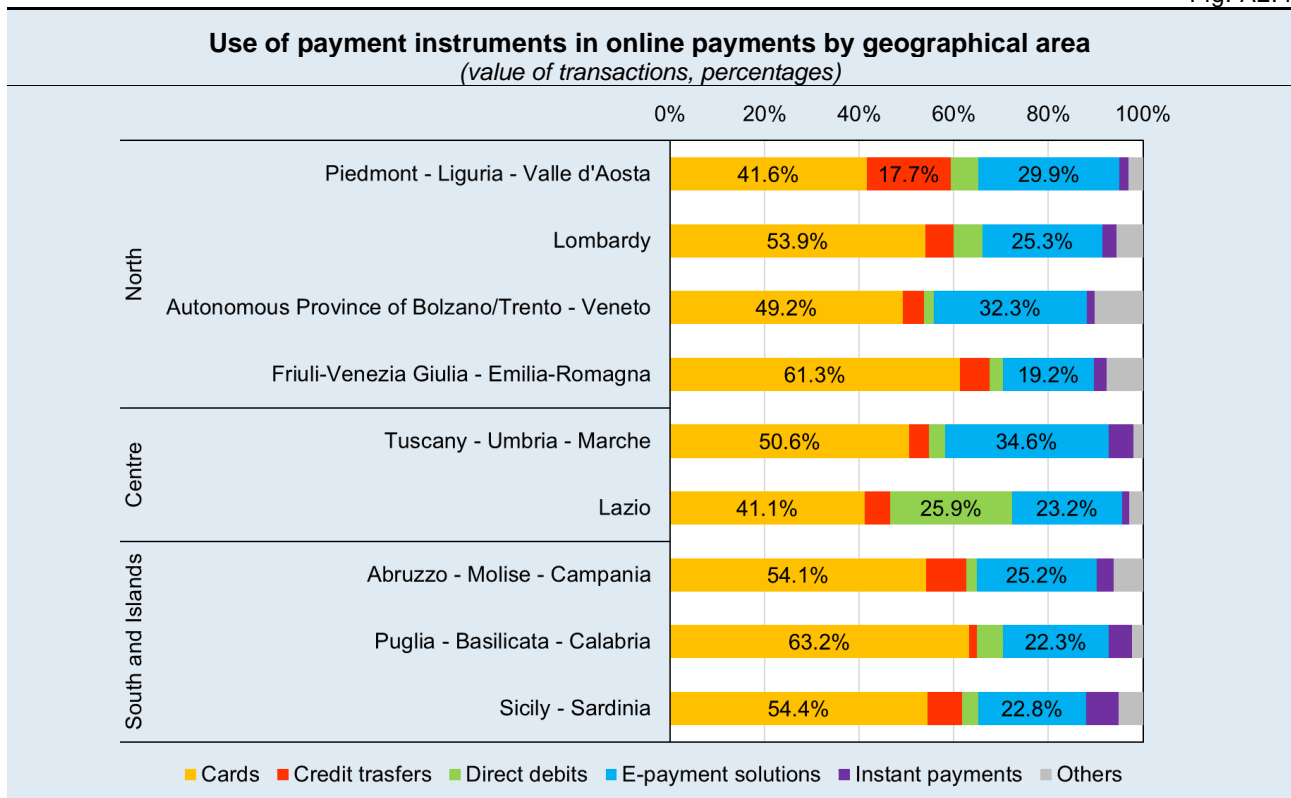
Fig. A2.3



Source: authors' calculations based on ECB SPACE survey data (2024).

Notes: the 'E-payment solutions' category includes PayPal and other online or mobile payment methods; the 'Others' category includes bank cheques, loyalty points, vouchers and gift cards, crypto-assets, BNPL and other payment instruments.

Fig. A2.4

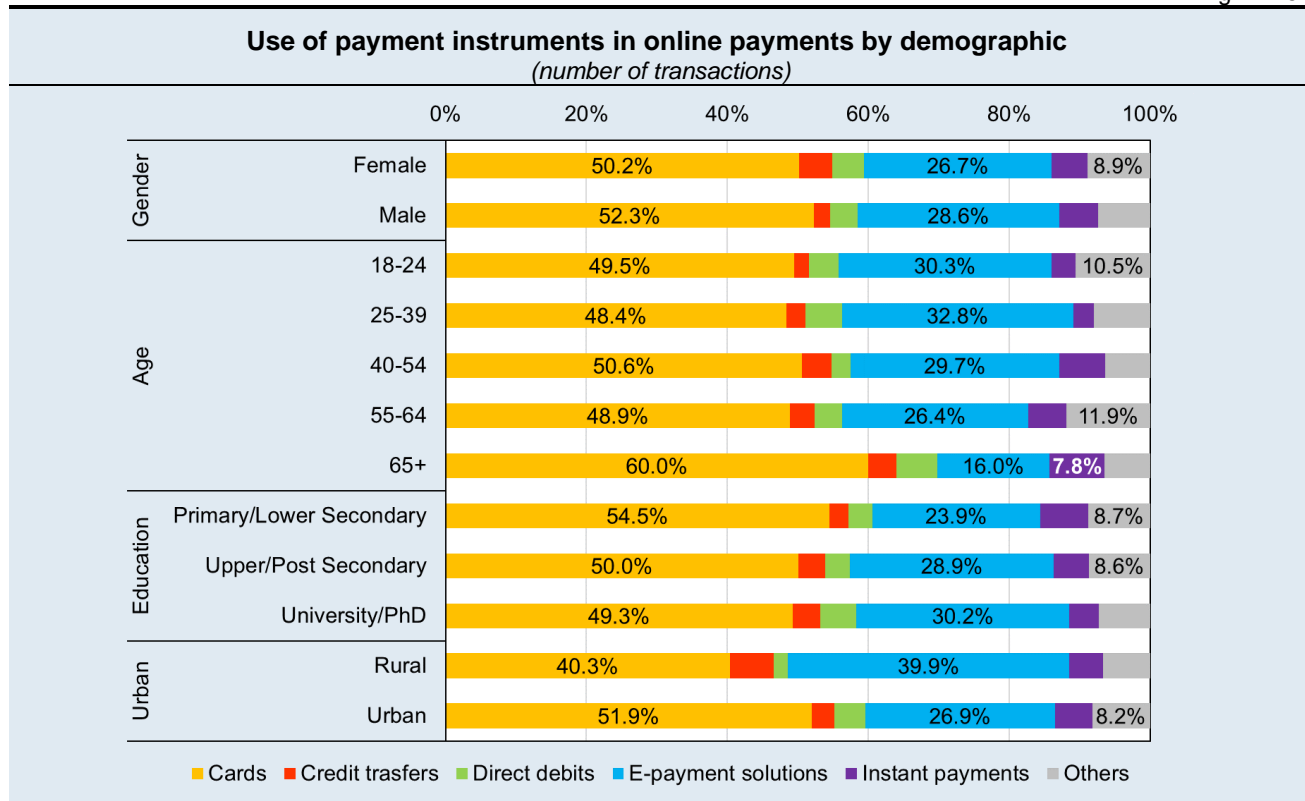


Source: authors' calculations based on ECB SPACE survey data (2024).

Notes: the 'E-payment solutions' category includes PayPal and other online or mobile payment methods; the 'Others' category includes bank cheques, loyalty points, vouchers and gift cards, crypto-assets, BNPL and other payment instruments.

A2. Use of payment instruments in Italy – online payments

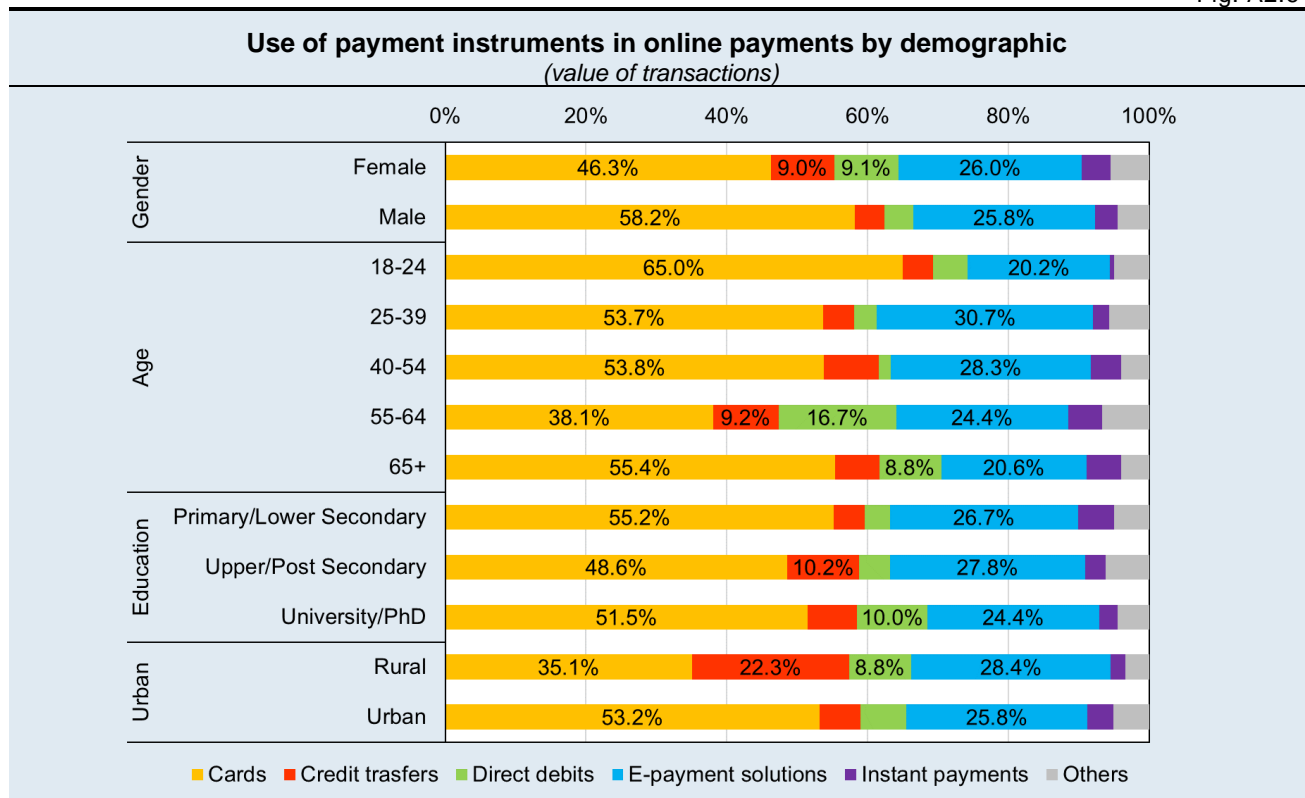
Fig. A2.5



Source: authors' calculations based on ECB SPACE survey data (2024).

Notes: the 'E-payment solutions' category includes PayPal and other online or mobile payment methods; the 'Others' category includes bank cheques, loyalty points, vouchers and gift cards, crypto-assets, BNPL and other payment instruments.

Fig. A2.6

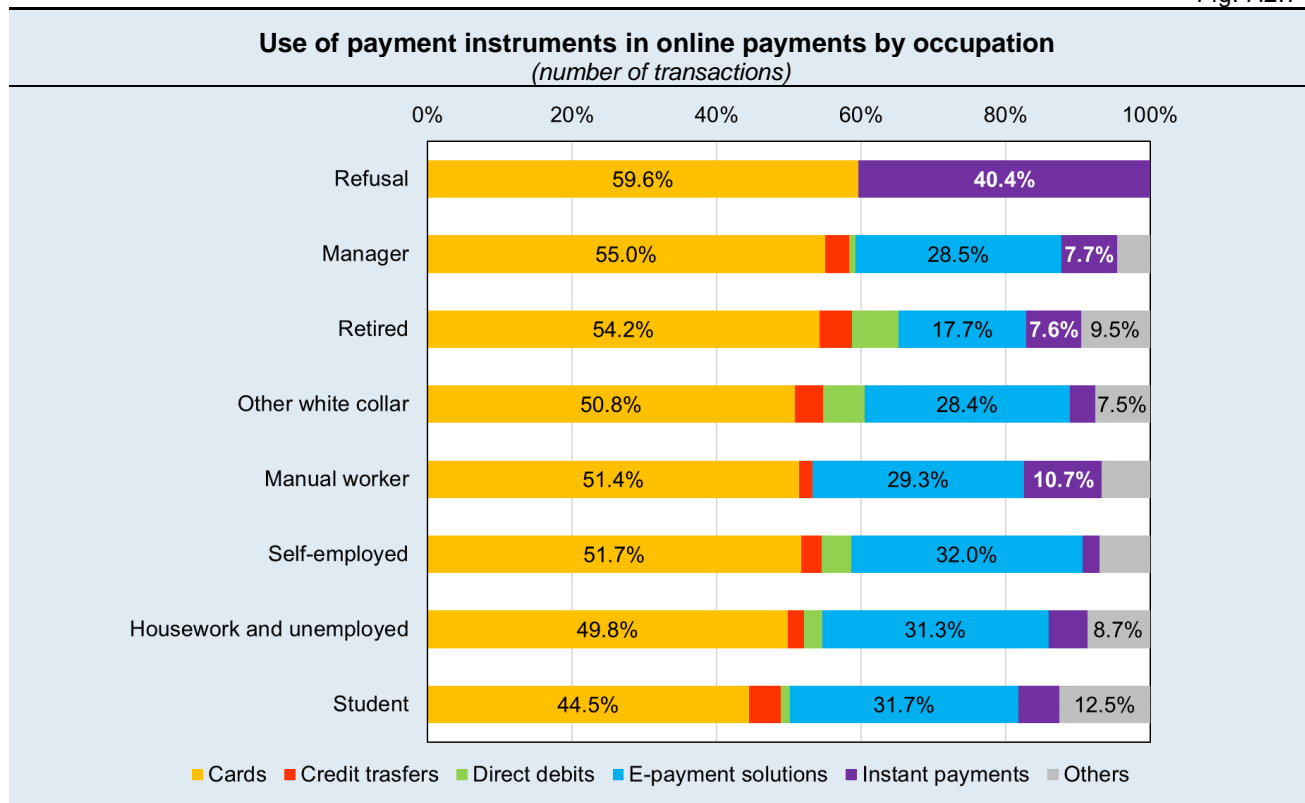


Source: authors' calculations based on ECB SPACE survey data (2024).

Notes: the 'E-payment solutions' category includes PayPal and other online or mobile payment methods; the 'Others' category includes bank cheques, loyalty points, vouchers and gift cards, crypto-assets, BNPL and other payment instruments.

A2. Use of payment instruments in Italy – online payments

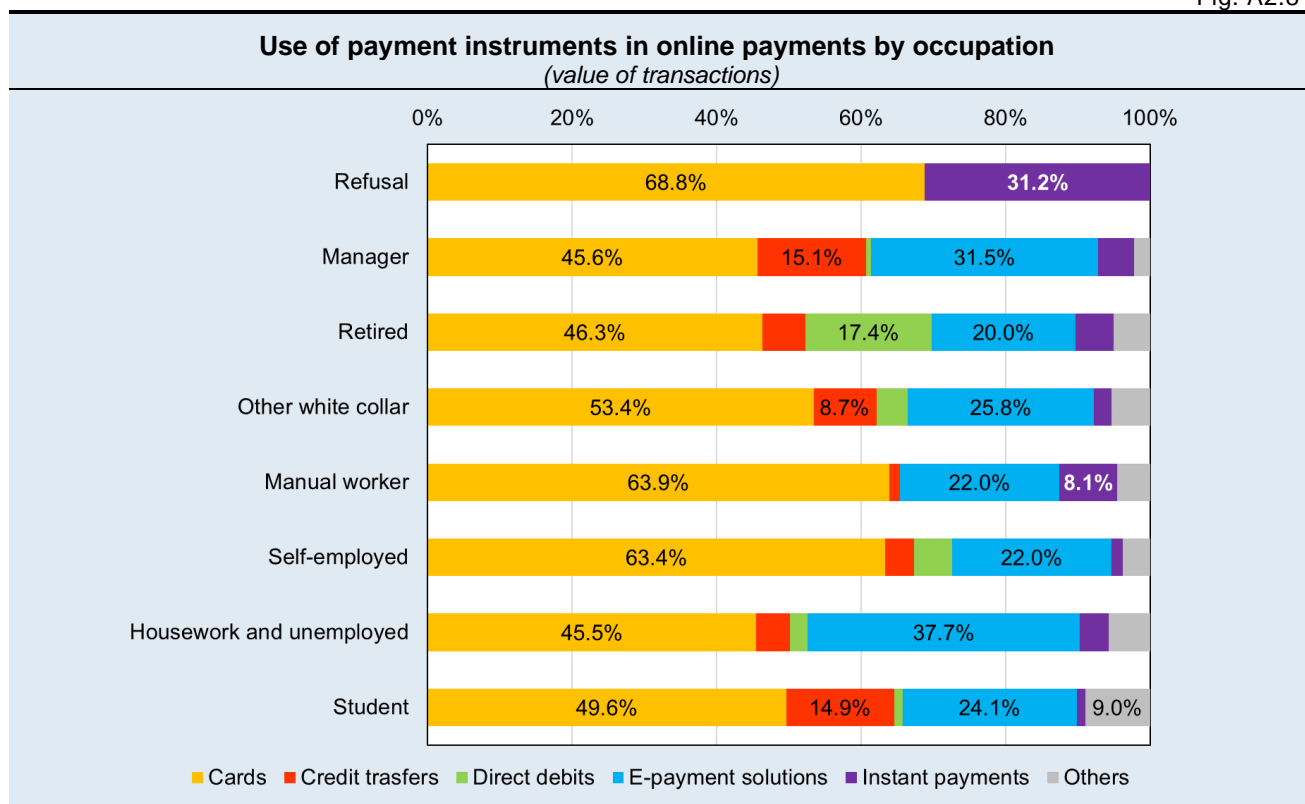
Fig. A2.7



Source: authors' calculations based on ECB SPACE survey data (2024).

Notes: the 'E-payment solutions' category includes PayPal and other online or mobile payment methods; the 'Others' category includes bank cheques, loyalty points, vouchers and gift cards, crypto-assets, BNPL and other payment instruments.

Fig. A2.8

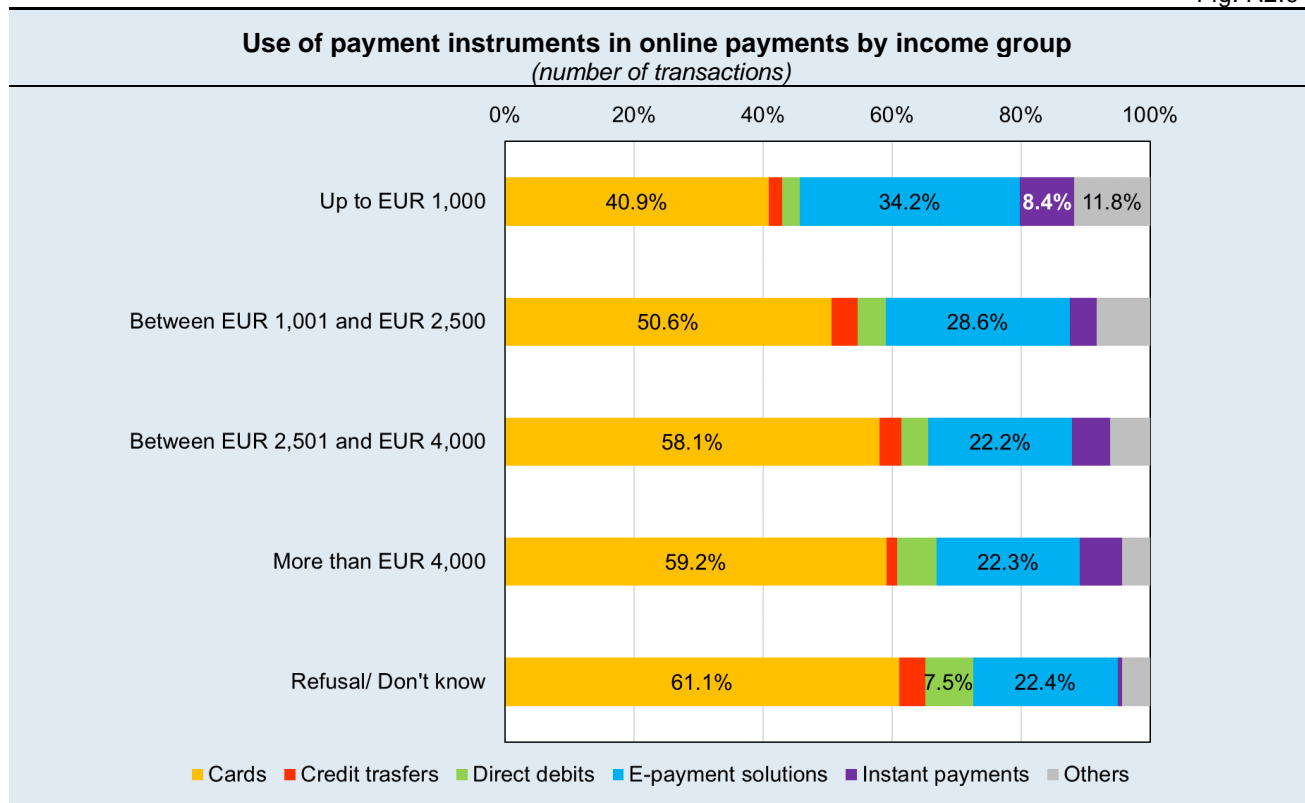


Source: authors' calculations based on ECB SPACE survey data (2024).

Notes: the 'E-payment solutions' category includes PayPal and other online or mobile payment methods; the 'Others' category includes bank cheques, loyalty points, vouchers and gift cards, crypto-assets, BNPL and other payment instruments.

A2. Use of payment instruments in Italy – online payments

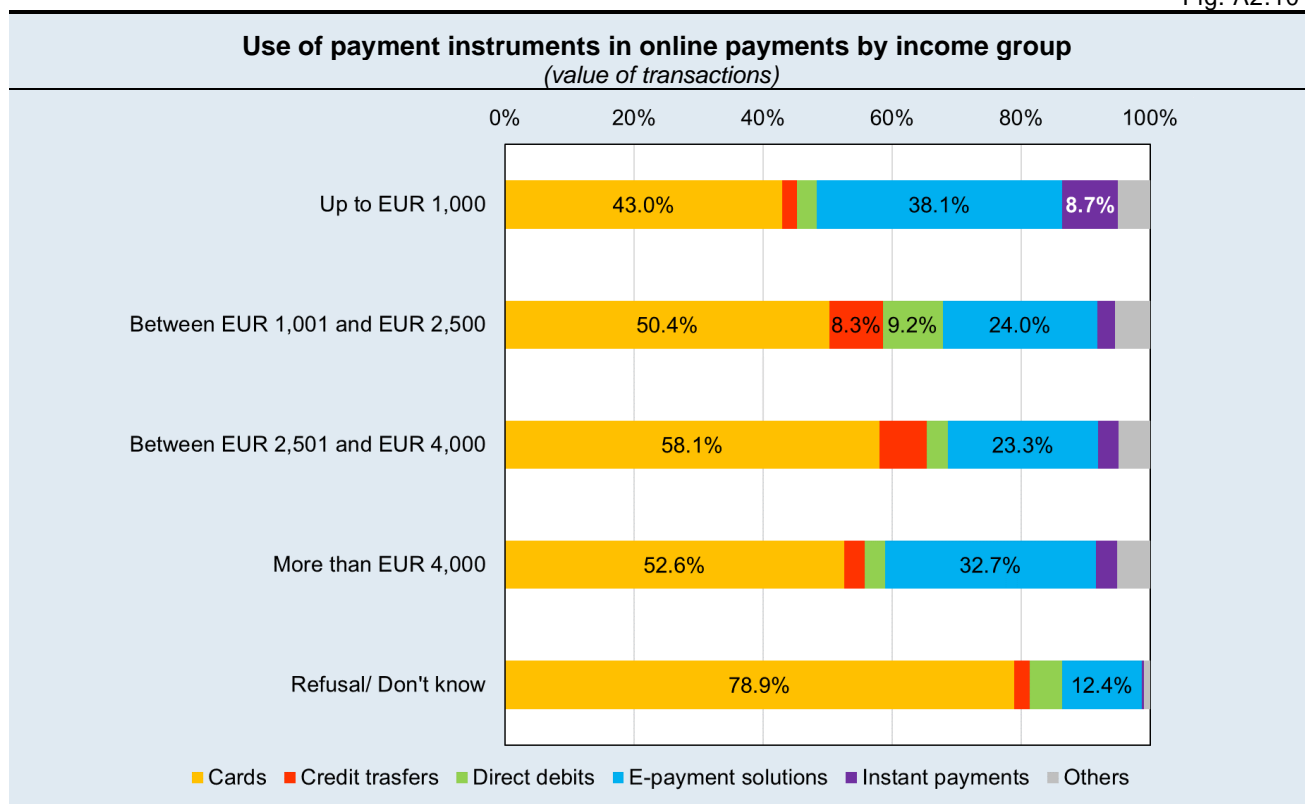
Fig. A2.9



Source: authors' calculations based on ECB SPACE survey data (2024).

Notes: the 'E-payment solutions' category includes PayPal and other online or mobile payment methods; the 'Others' category includes bank cheques, loyalty points, vouchers and gift cards, crypto-assets, BNPL and other payment instruments.

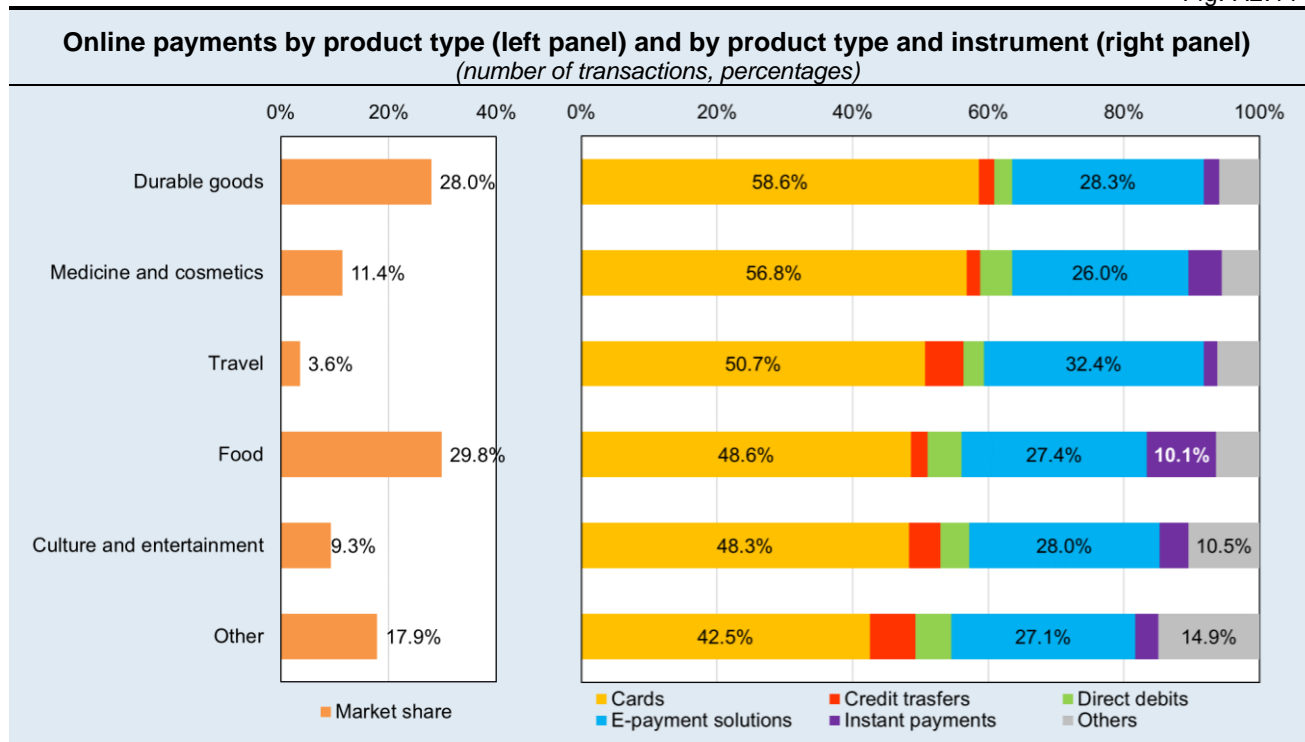
Fig. A2.10



Source: authors' calculations based on ECB SPACE survey data (2024).

Notes: the 'E-payment solutions' category includes PayPal and other online or mobile payment methods; the 'Others' category includes bank cheques, loyalty points, vouchers and gift cards, crypto-assets, BNPL and other payment instruments.

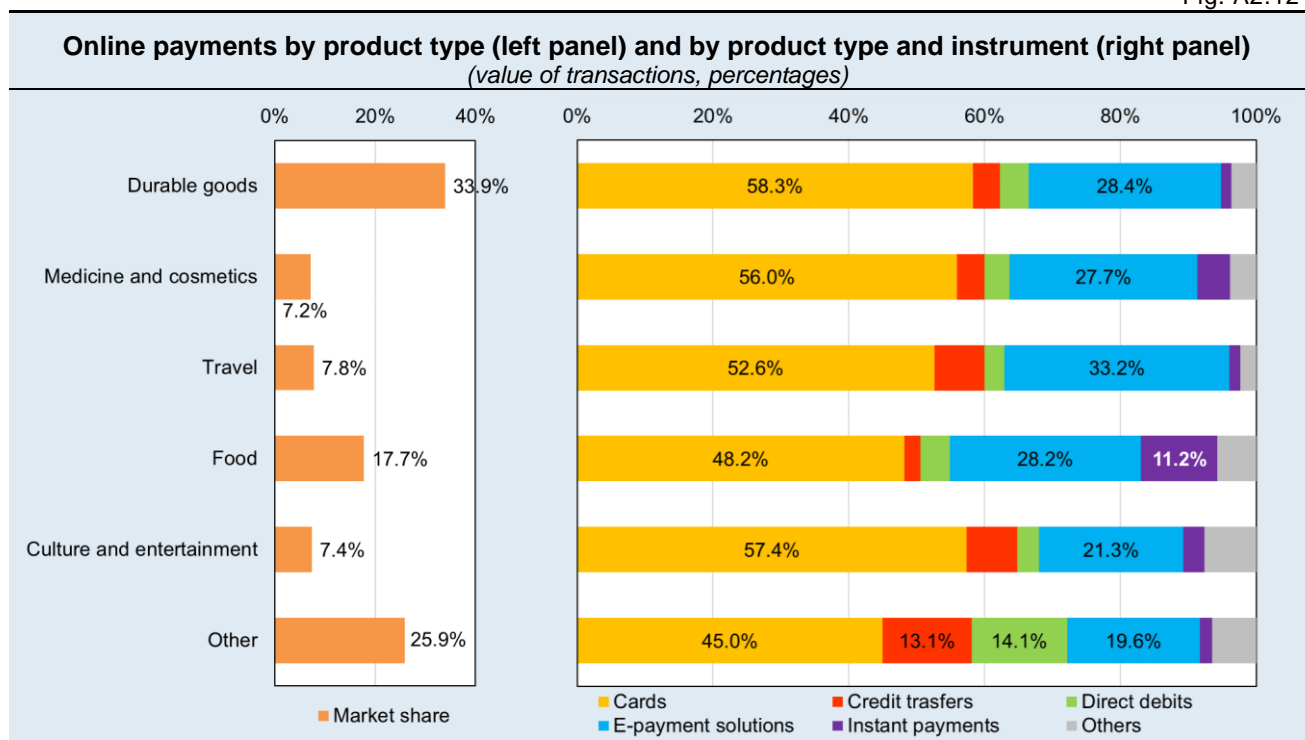
Fig. A2.11



Source: authors' calculations based on ECB SPACE survey data (2024).

Notes: the 'E-payment solutions' category includes PayPal and other online or mobile payment methods; the 'Others' category includes bank cheques, loyalty points, vouchers and gift cards, crypto-assets, BNPL and other payment instruments.

Fig. A2.12

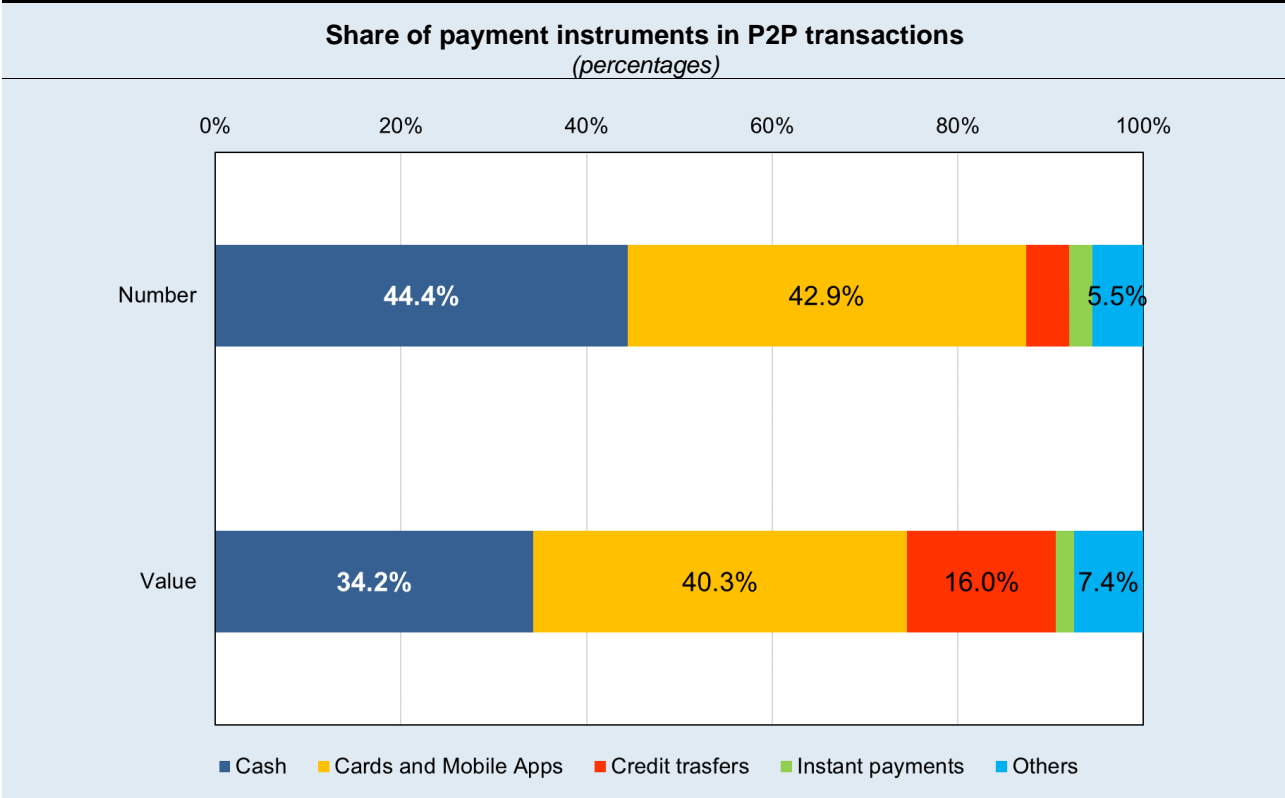


Source: authors' calculations based on ECB SPACE survey data (2024).

Notes: the 'E-payment solutions' category includes PayPal and other online or mobile payment methods; the 'Others' category includes bank cheques, loyalty points, vouchers and gift cards, crypto-assets, BNPL and other payment instruments.

A3. Use of payment instruments in Italy – P2P payments

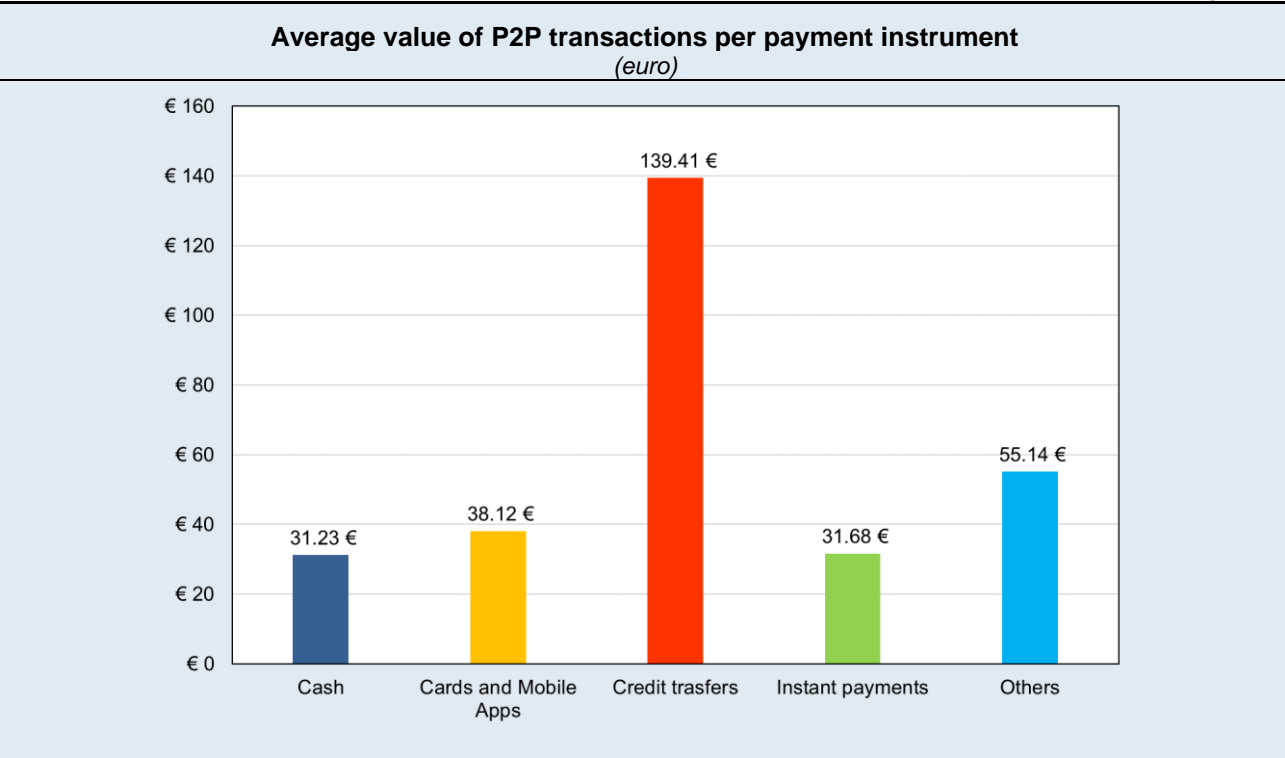
Fig. A3.1



Source: authors' calculations based on ECB SPACE survey data (2024).

Notes: the "Cards and Mobile Apps" category includes physical cards (debit, credit and prepaid cards), apps on mobile phone, smartwatch, fitness armband or another smart device, payment wallets, PayPal and other mobile apps (online); the "Others" category includes bank cheques, direct debit, loyalty points, vouchers and gift cards, crypto-assets, BNPL and other payment instruments.

Fig. A3.2

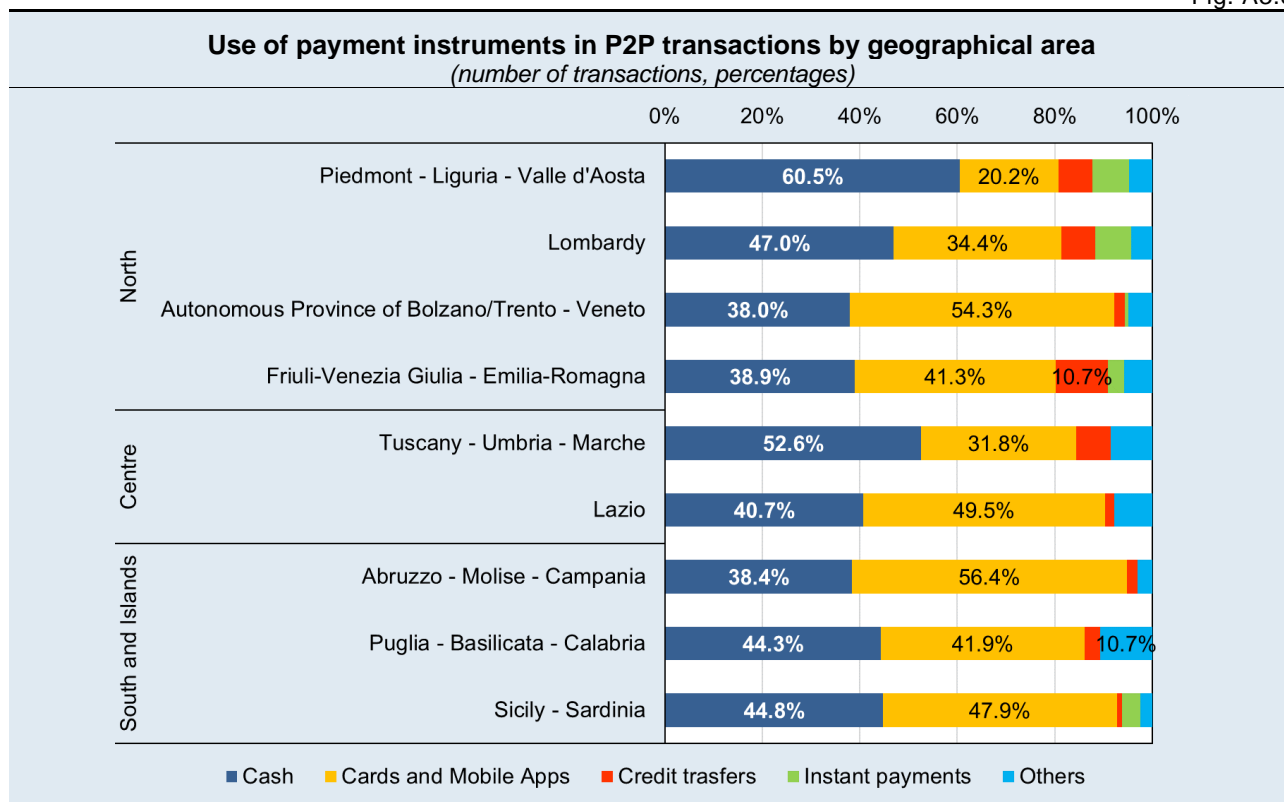


Source: authors' calculations based on ECB SPACE survey data (2024).

Notes: the "Cards and Mobile Apps" category includes physical cards (debit, credit and prepaid cards), apps on mobile phone, smartwatch, fitness armband or another smart device, payment wallets, PayPal and other mobile apps (online); the "Others" category includes bank cheques, direct debit, loyalty points, vouchers and gift cards, crypto-assets, BNPL and other payment instruments.

A3. Use of payment instruments in Italy – P2P payments

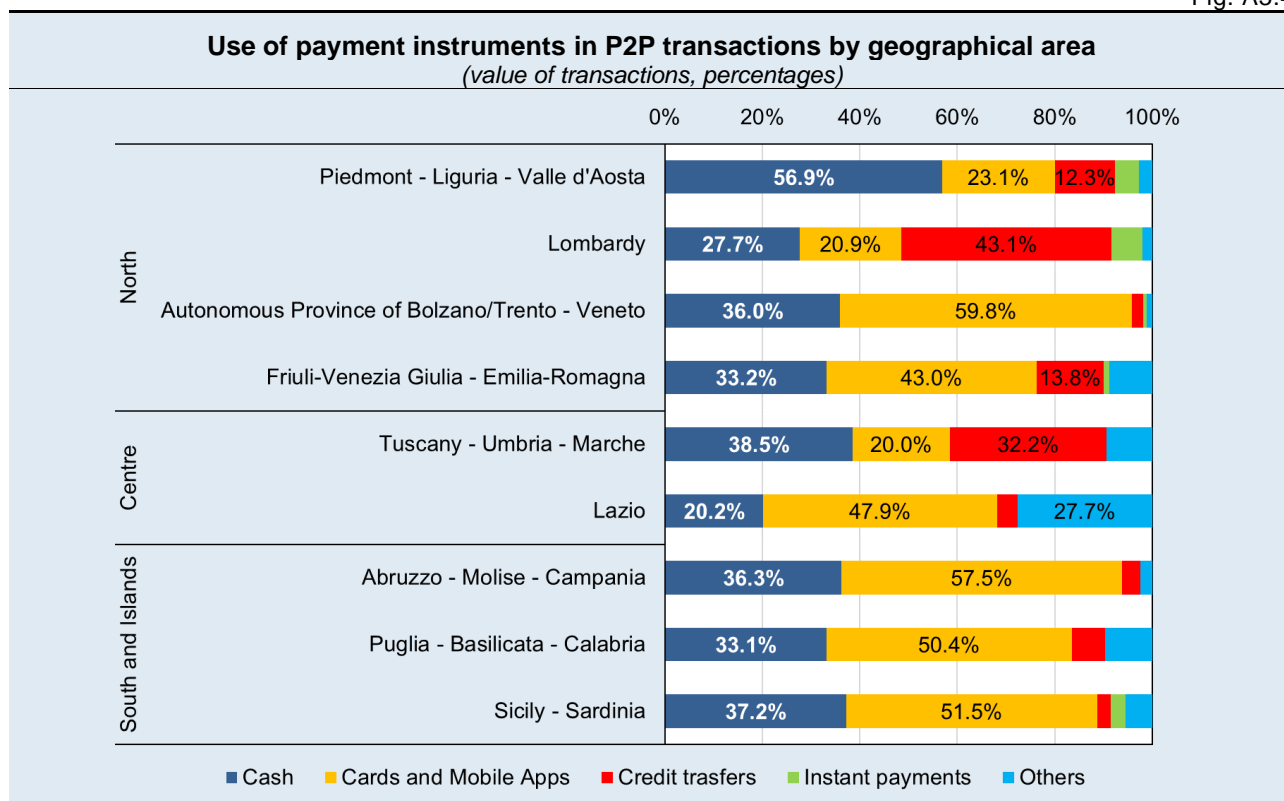
Fig. A3.3



Source: authors' calculations based on ECB SPACE survey data (2024).

Notes: the "Cards and Mobile Apps" category includes physical cards (debit, credit and prepaid cards), apps on mobile phone, smartwatch, fitness armband or another smart device, payment wallets, PayPal and other mobile apps (online); the "Others" category includes bank cheques, direct debit, loyalty points, vouchers and gift cards, crypto-assets, BNPL and other payment instruments.

Fig. A3.4

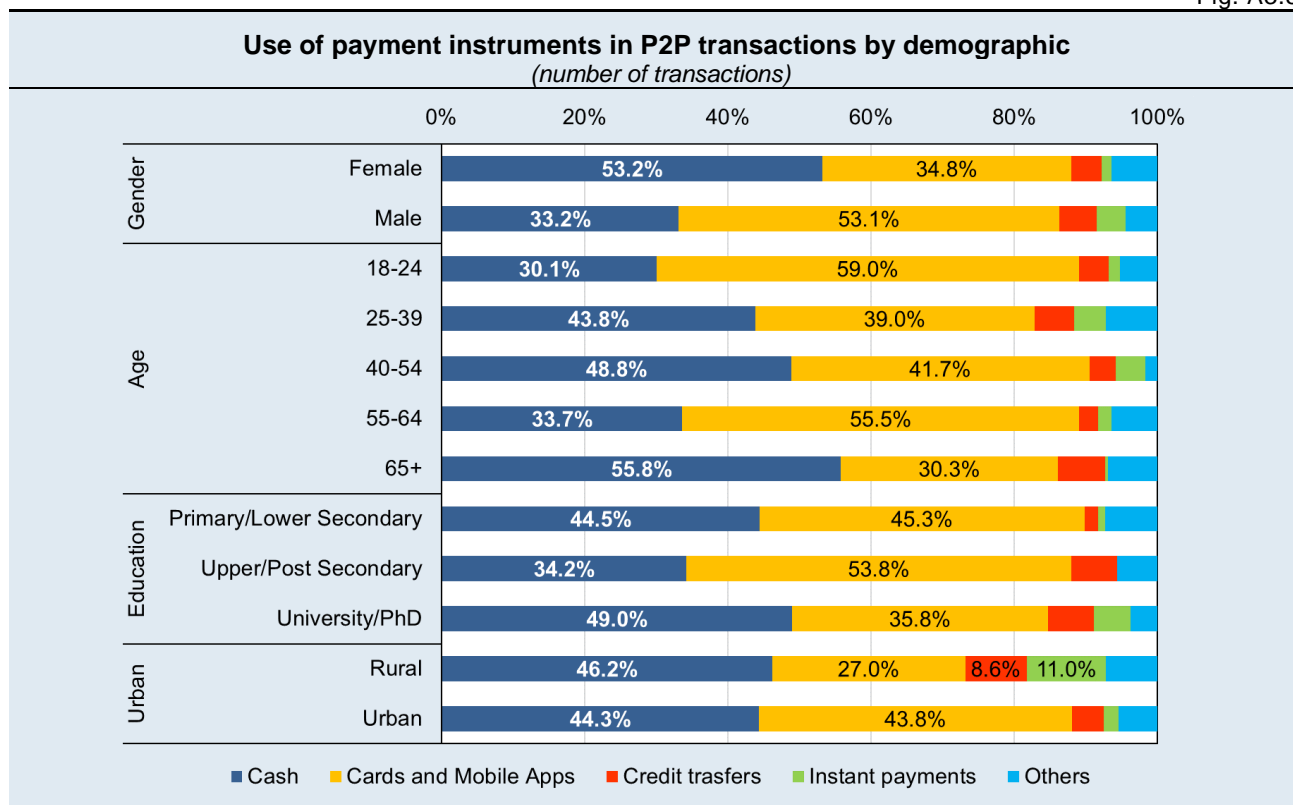


Source: authors' calculations based on ECB SPACE survey data (2024).

Notes: the "Cards and Mobile Apps" category includes physical cards (debit, credit and prepaid cards), apps on mobile phone, smartwatch, fitness armband or another smart device, payment wallets, PayPal and other mobile apps (online); the "Others" category includes bank cheques, direct debit, loyalty points, vouchers and gift cards, crypto-assets, BNPL and other payment instruments.

A3. Use of payment instruments in Italy – P2P payments

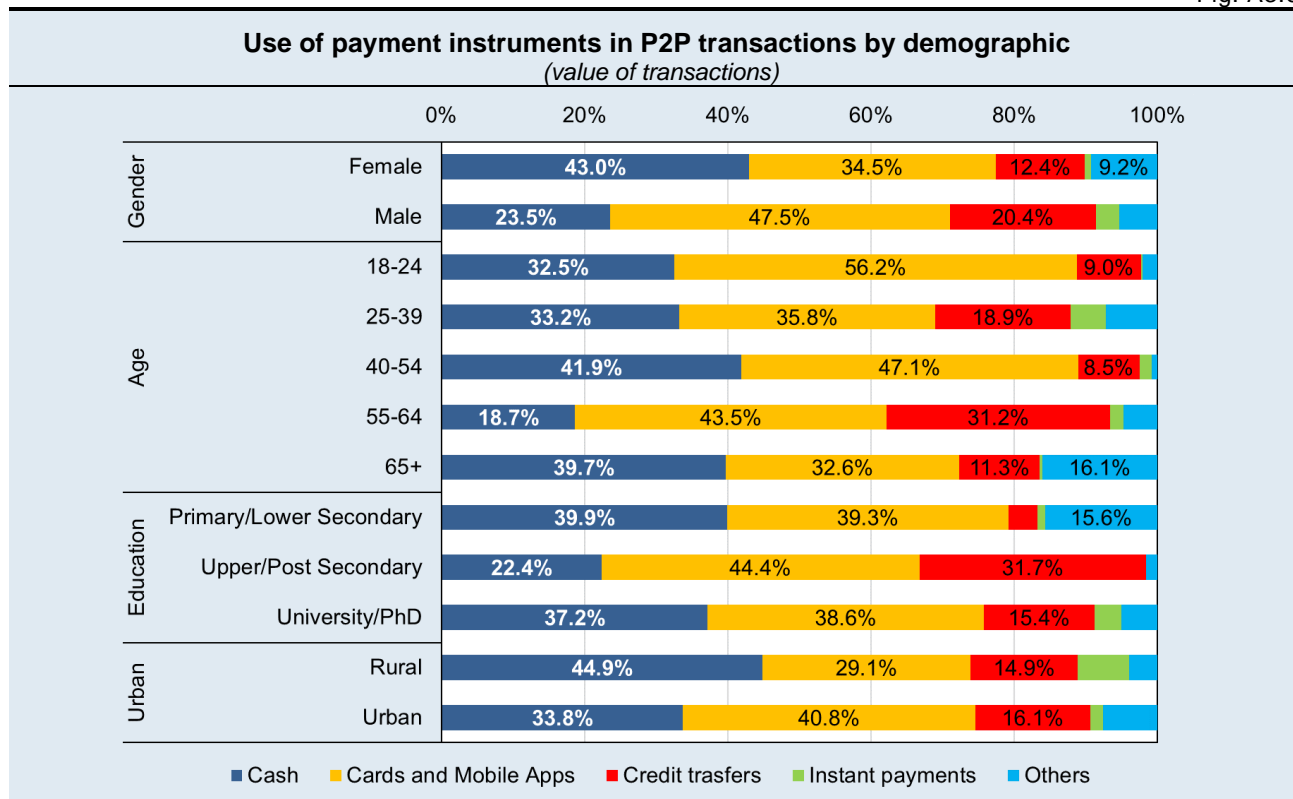
Fig. A3.5



Source: authors' calculations based on ECB SPACE survey data (2024).

Notes: the "Cards and Mobile Apps" category includes physical cards (debit, credit and prepaid cards), apps on mobile phone, smartwatch, fitness armband or another smart device, payment wallets, PayPal and other mobile apps (online); the "Others" category includes bank cheques, direct debit, loyalty points, vouchers and gift cards, crypto-assets, BNPL and other payment instruments.

Fig. A3.6

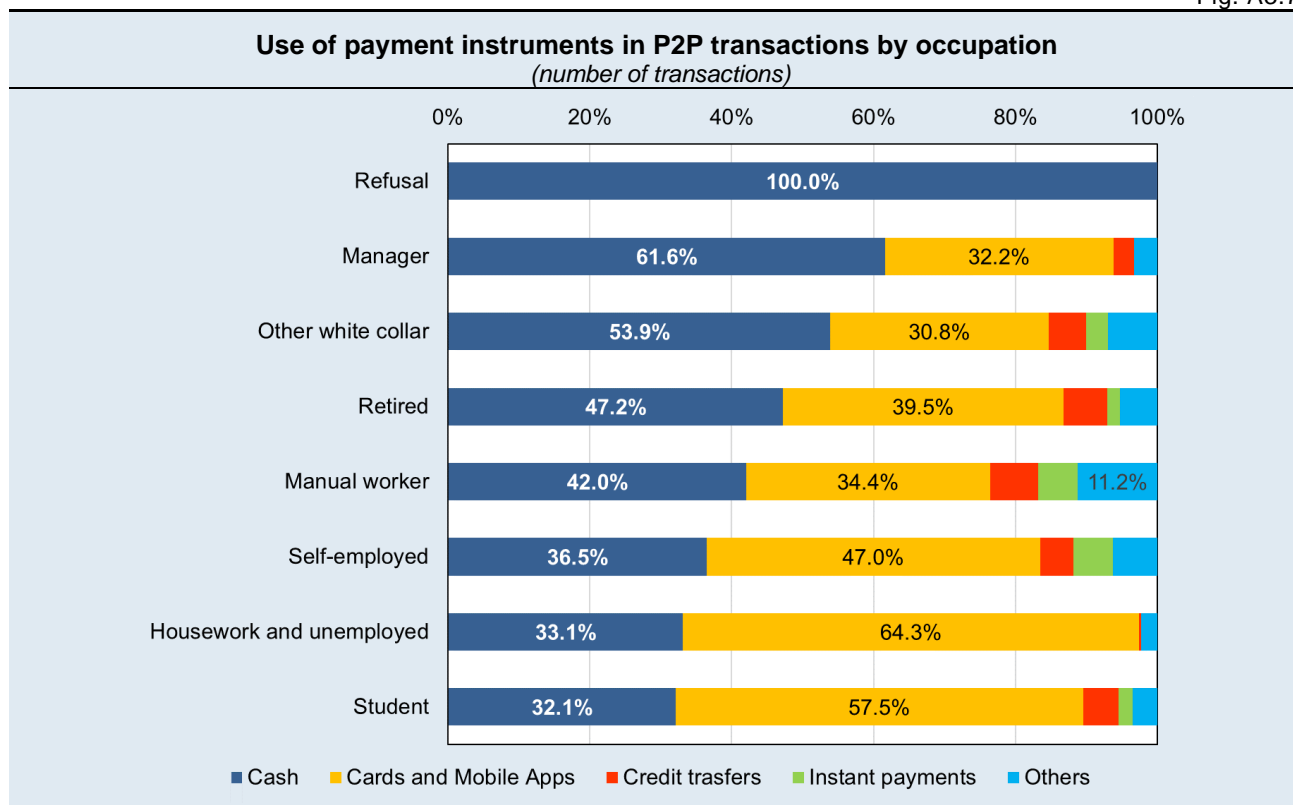


Source: authors' calculations based on ECB SPACE survey data (2024).

Notes: the "Cards and Mobile Apps" category includes physical cards (debit, credit and prepaid cards), apps on mobile phone, smartwatch, fitness armband or another smart device, payment wallets, PayPal and other mobile apps (online); the "Others" category includes bank cheques, direct debit, loyalty points, vouchers and gift cards, crypto-assets, BNPL and other payment instruments.

A3. Use of payment instruments in Italy – P2P payments

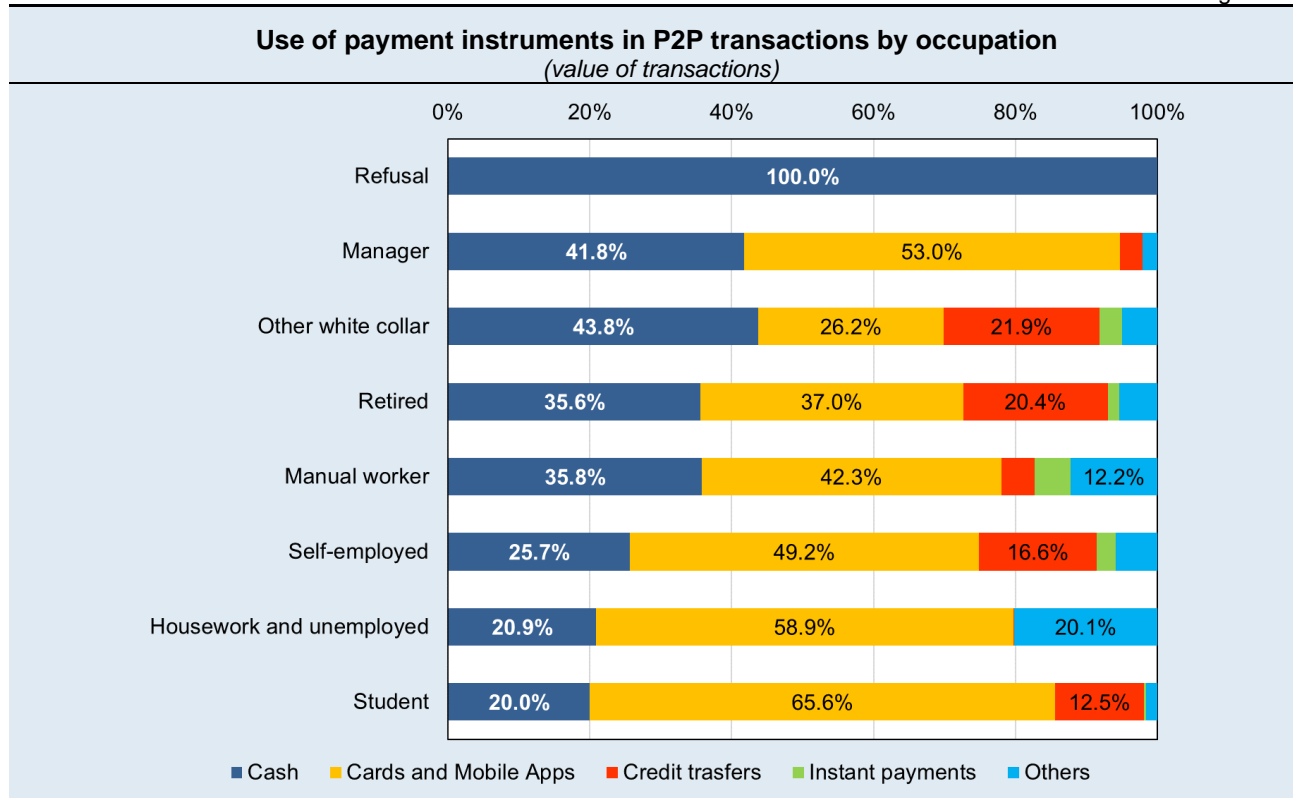
Fig. A3.7



Source: authors' calculations based on ECB SPACE survey data (2024).

Notes: the "Cards and Mobile Apps" category includes physical cards (debit, credit and prepaid cards), apps on mobile phone, smartwatch, fitness armband or another smart device, payment wallets, PayPal and other mobile apps (online); the "Others" category includes bank cheques, direct debit, loyalty points, vouchers and gift cards, crypto-assets, BNPL and other payment instruments.

Fig. A3.8

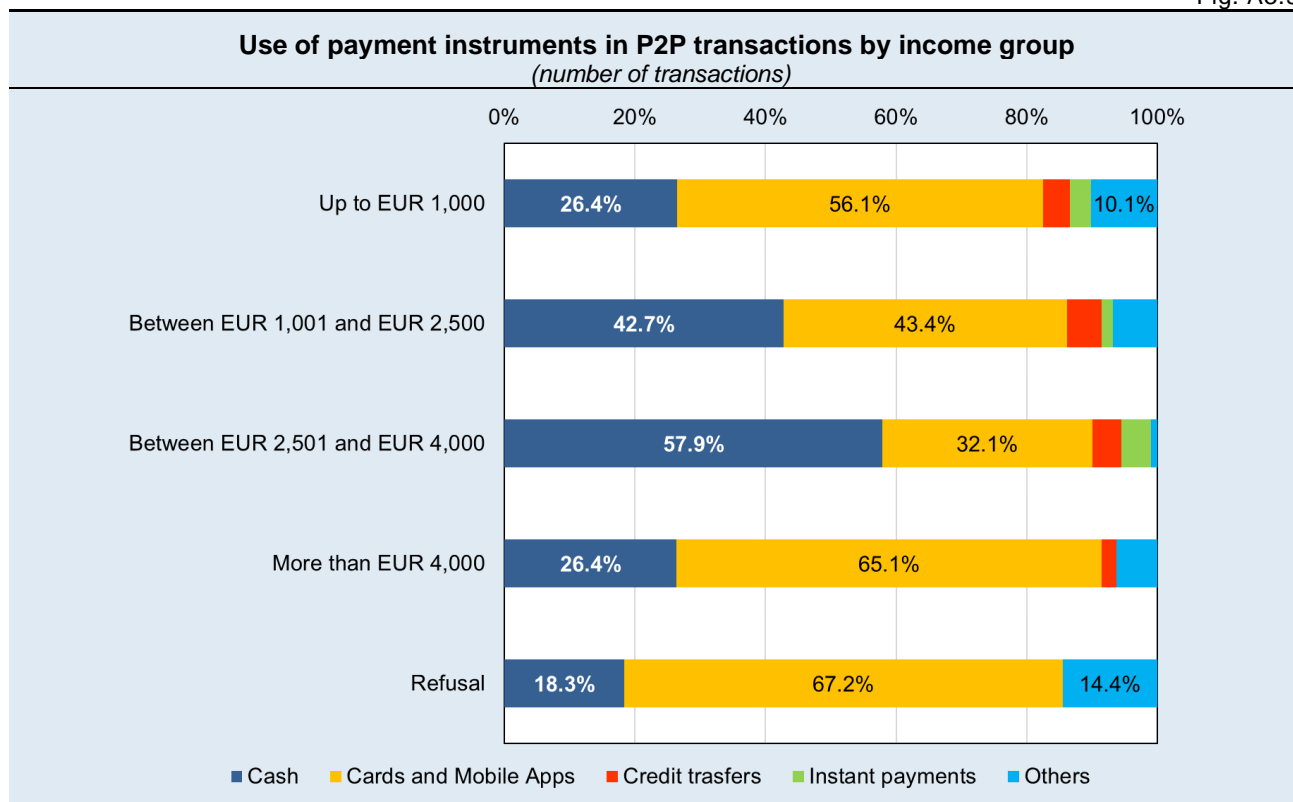


Source: authors' calculations based on ECB SPACE survey data (2024).

Notes: the "Cards and Mobile Apps" category includes physical cards (debit, credit and prepaid cards), apps on mobile phone, smartwatch, fitness armband or another smart device, payment wallets, PayPal and other mobile apps (online); the "Others" category includes bank cheques, direct debit, loyalty points, vouchers and gift cards, crypto-assets, BNPL and other payment instruments.

A3. Use of payment instruments in Italy – P2P payments

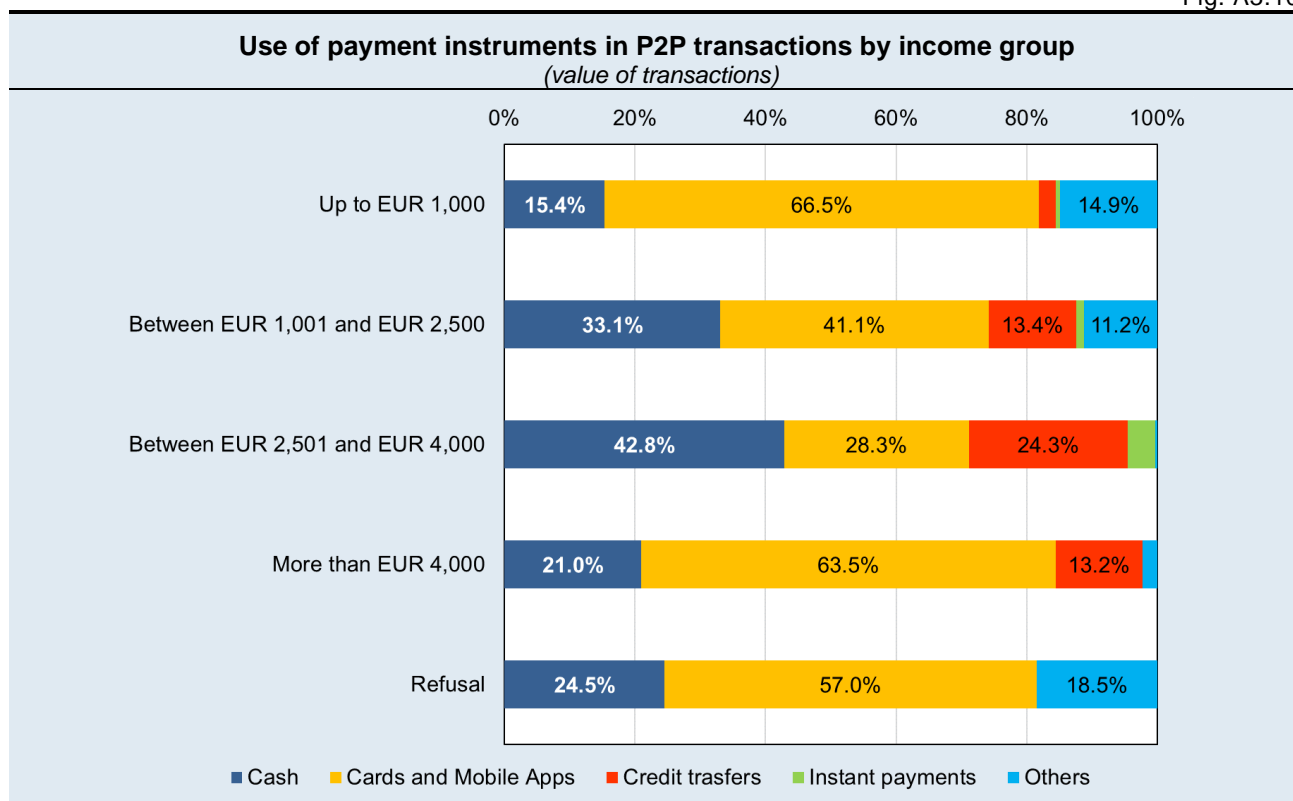
Fig. A3.9



Source: authors' calculations based on ECB SPACE survey data (2024).

Notes: the "Cards and Mobile Apps" category includes physical cards (debit, credit and prepaid cards), apps on mobile phone, smartwatch, fitness armband or another smart device, payment wallets, PayPal and other mobile apps (online); the "Others" category includes bank cheques, direct debit, loyalty points, vouchers and gift cards, crypto-assets, BNPL and other payment instruments.

Fig. A3.10

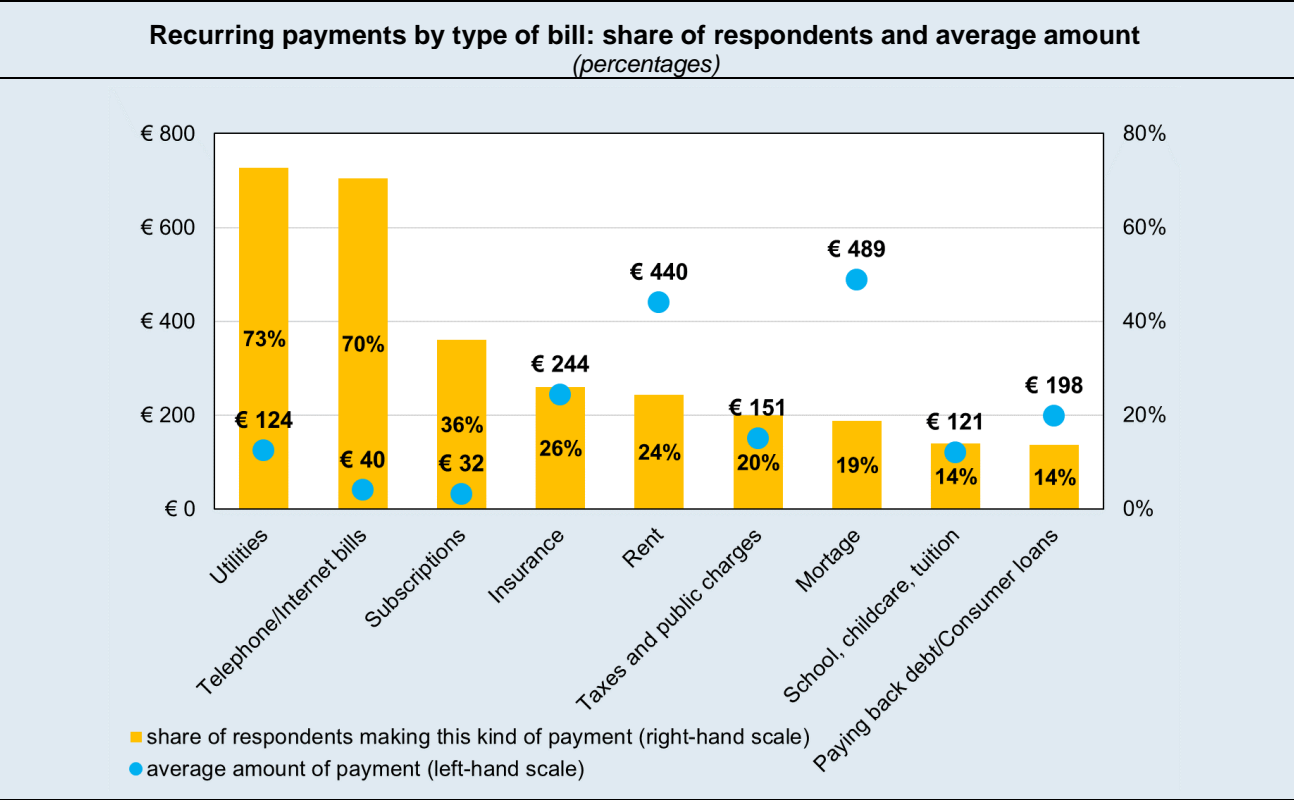


Source: authors' calculations based on ECB SPACE survey data (2024).

Notes: the "Cards and Mobile Apps" category includes physical cards (debit, credit and prepaid cards), apps on mobile phone, smartwatch, fitness armband or another smart device, payment wallets, PayPal and other mobile apps (online); the "Others" category includes bank cheques, direct debit, loyalty points, vouchers and gift cards, crypto-assets, BNPL and other payment instruments.

A4. Use of payment instruments in Italy – Recurring payments

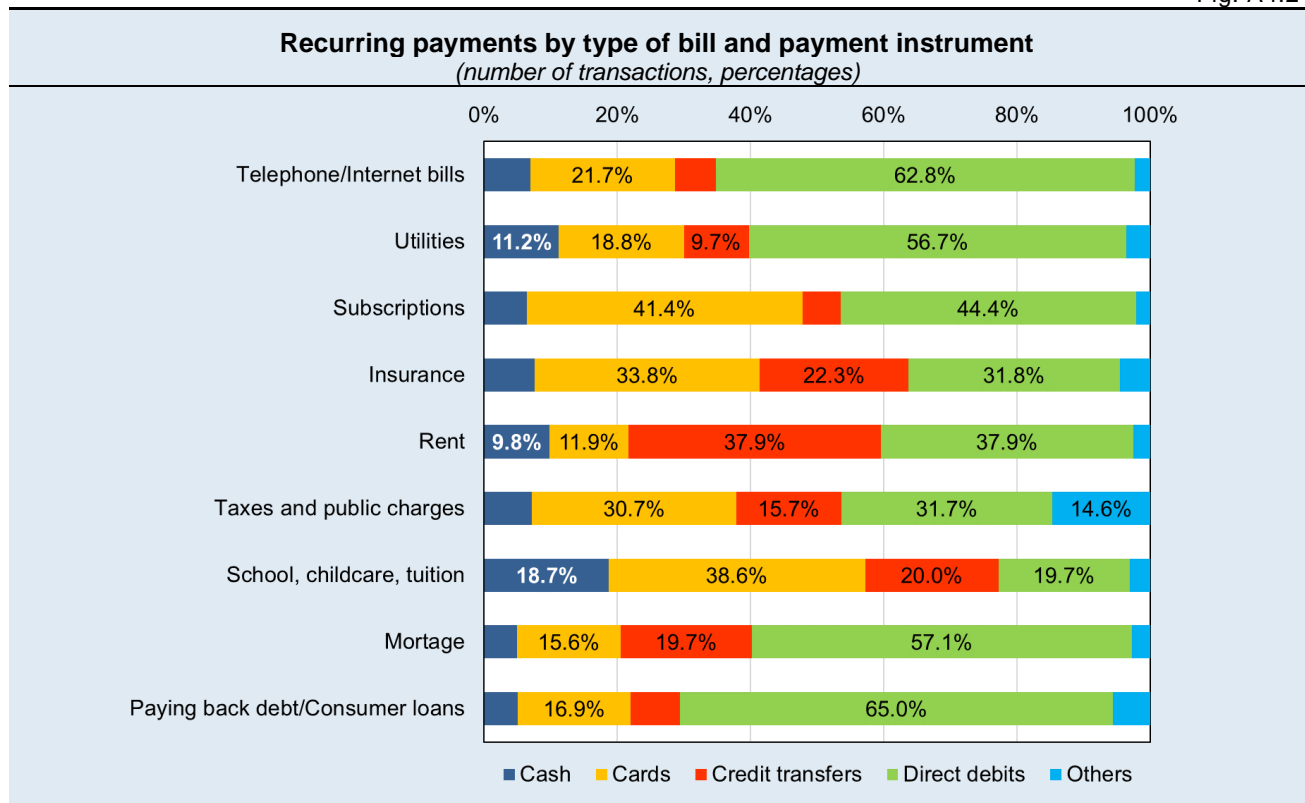
Fig. A4.1



Source: authors' calculations based on ECB SPACE survey data (2024).

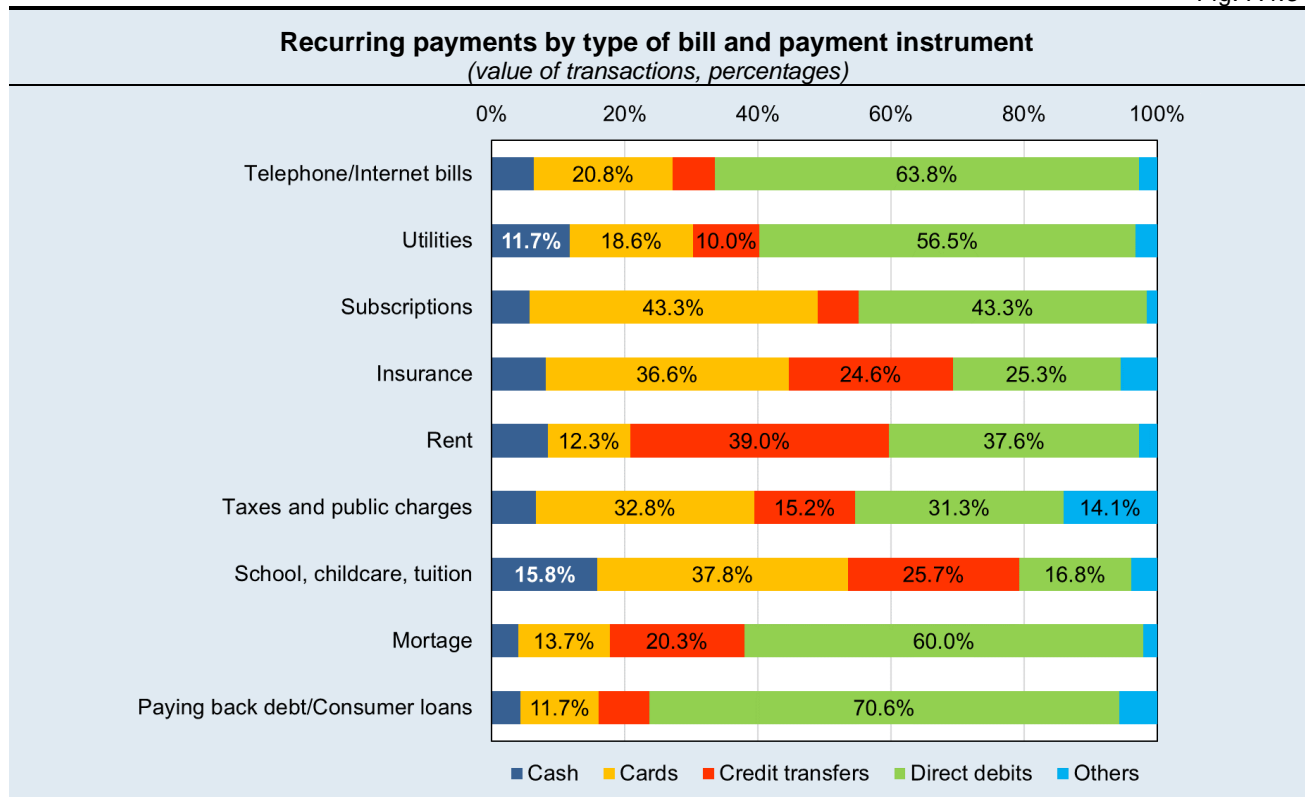
A4. Use of payment instruments in Italy – Recurring payments

Fig. A4.2



Source: authors' calculations based on ECB SPACE survey data (2024).
Note: the 'Others' category includes bank cheques.

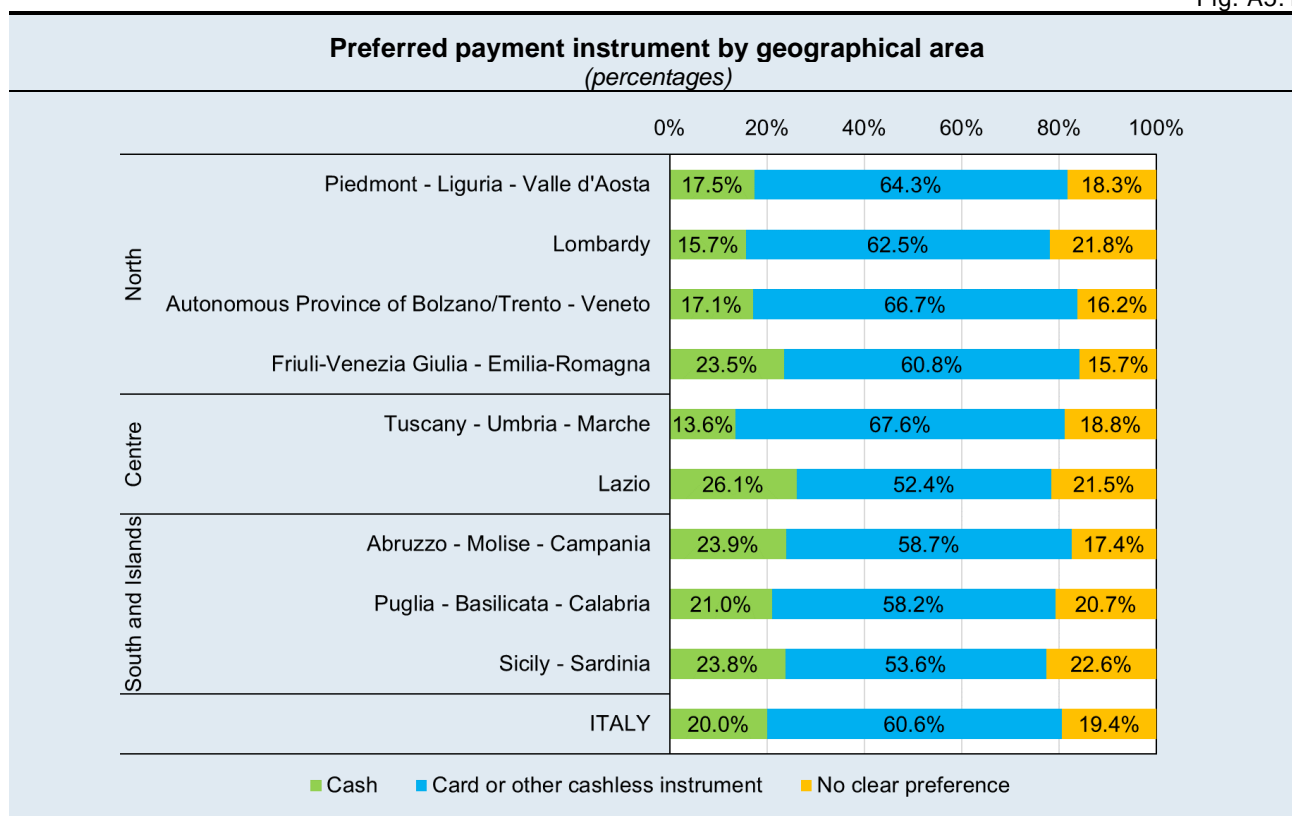
Fig. A4.3



Source: authors' calculations based on ECB SPACE survey data (2024).
Note: the 'Others' category includes bank cheques.

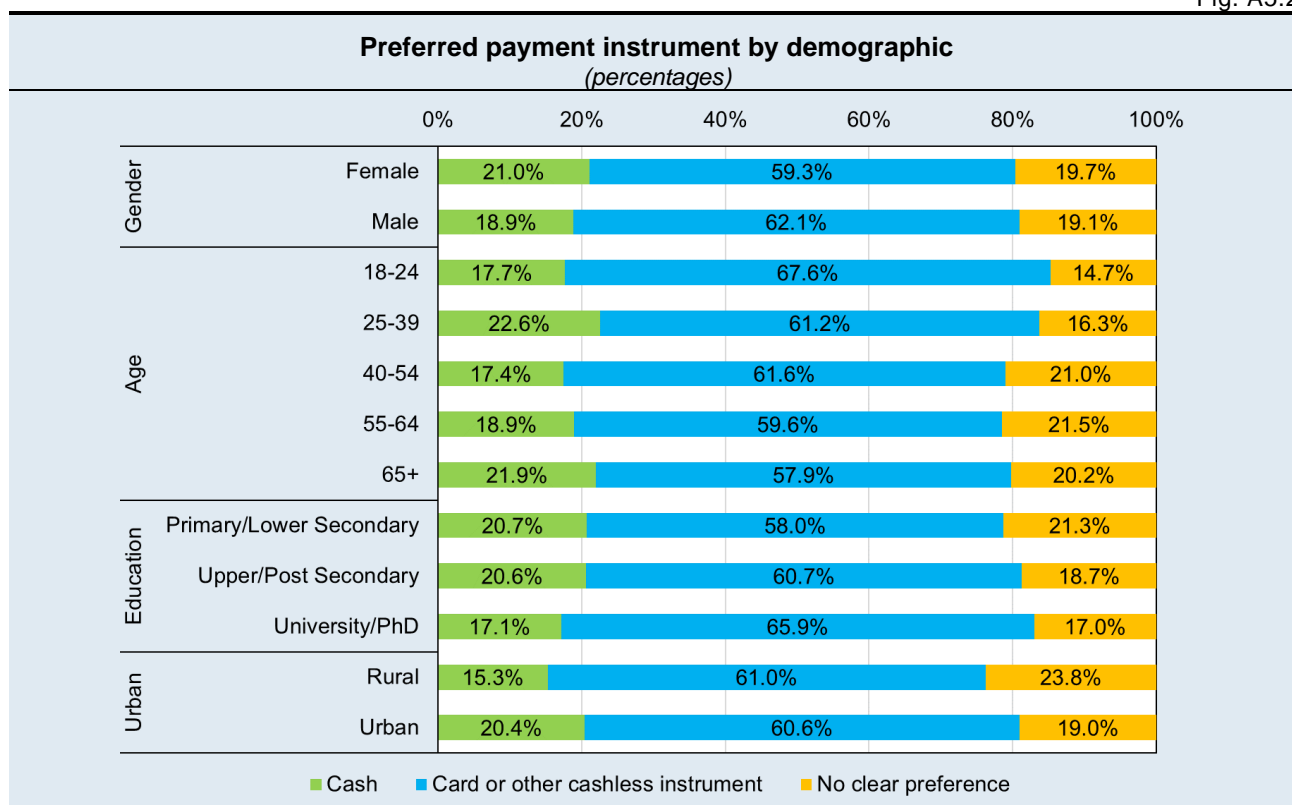
A5. Consumers' payment preferences in Italy

Fig. A5.1



Source: authors' calculations based on ECB SPACE survey data (2024).

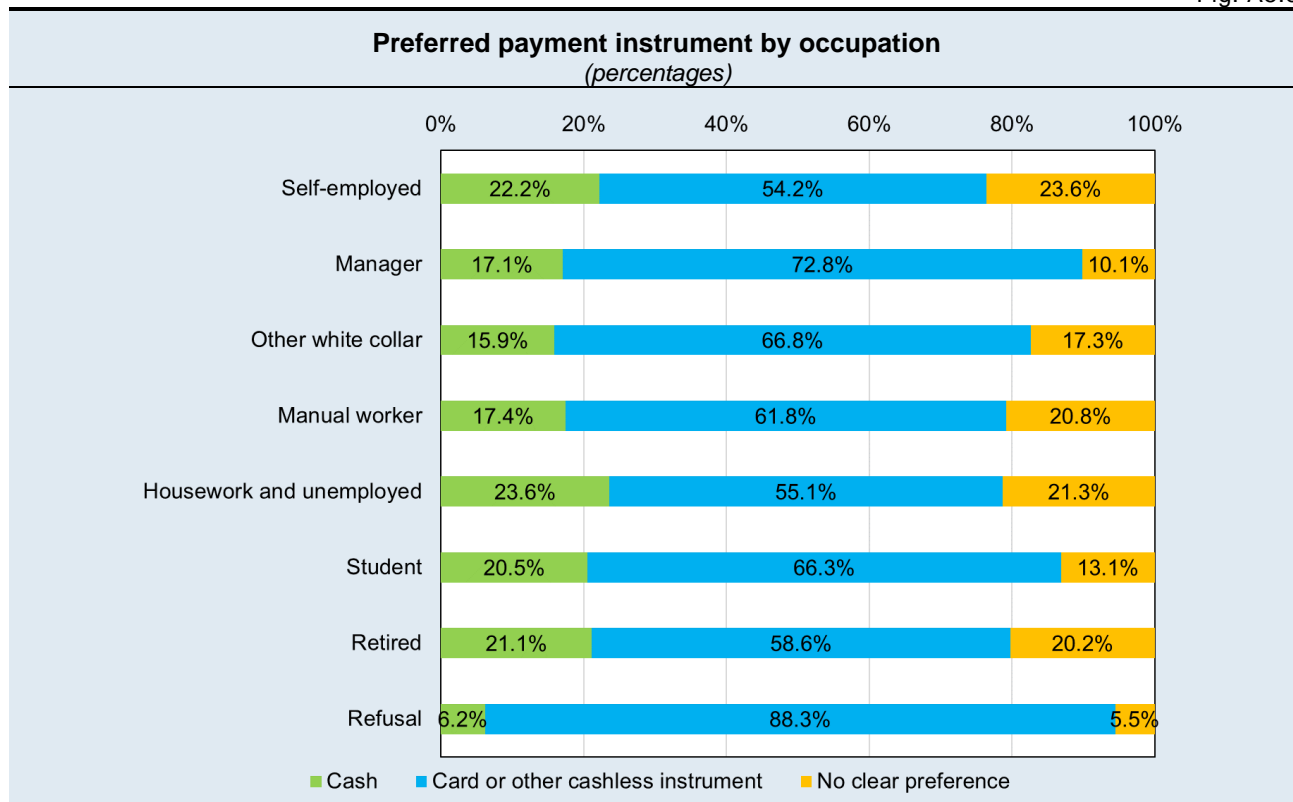
Fig. A5.2



Source: authors' calculations based on ECB SPACE survey data (2024).

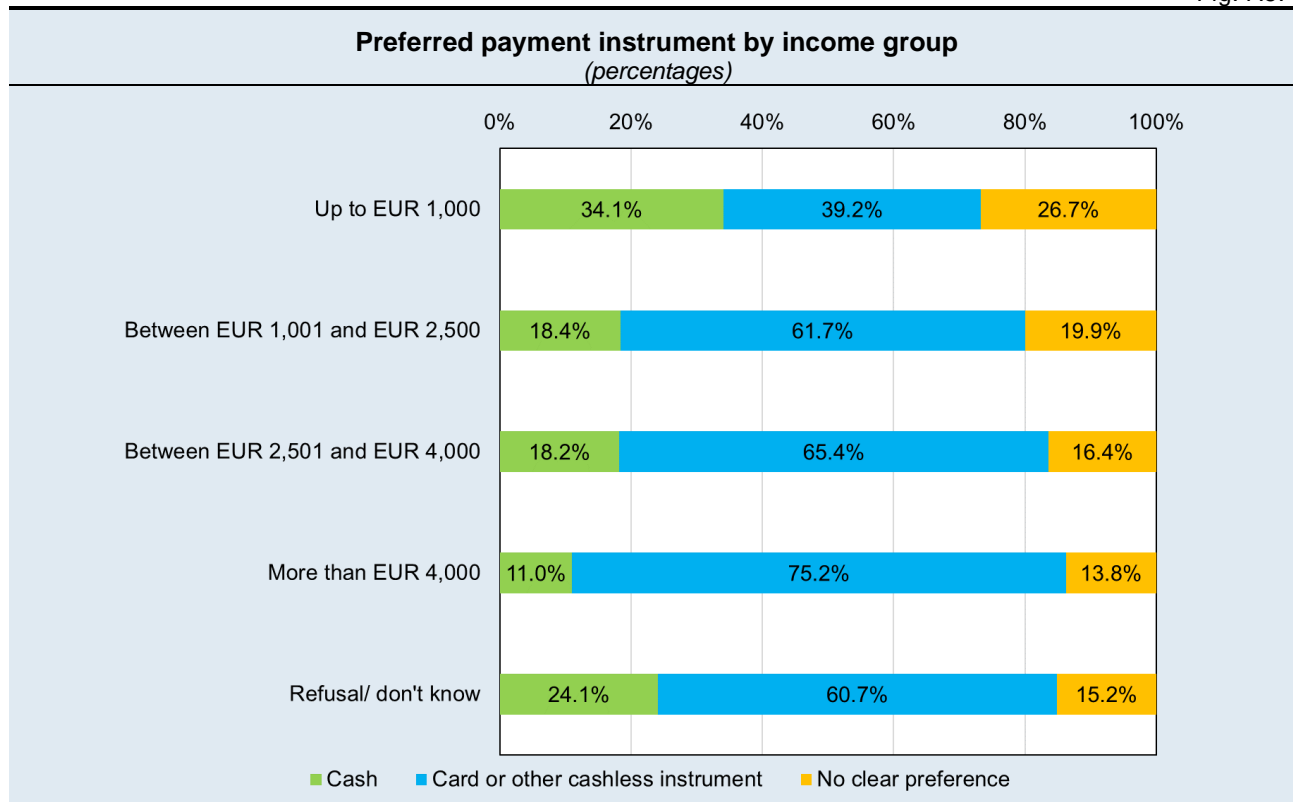
A5. Consumers' payment preferences in Italy

Fig. A5.3



Source: authors' calculations based on ECB SPACE survey data (2024).

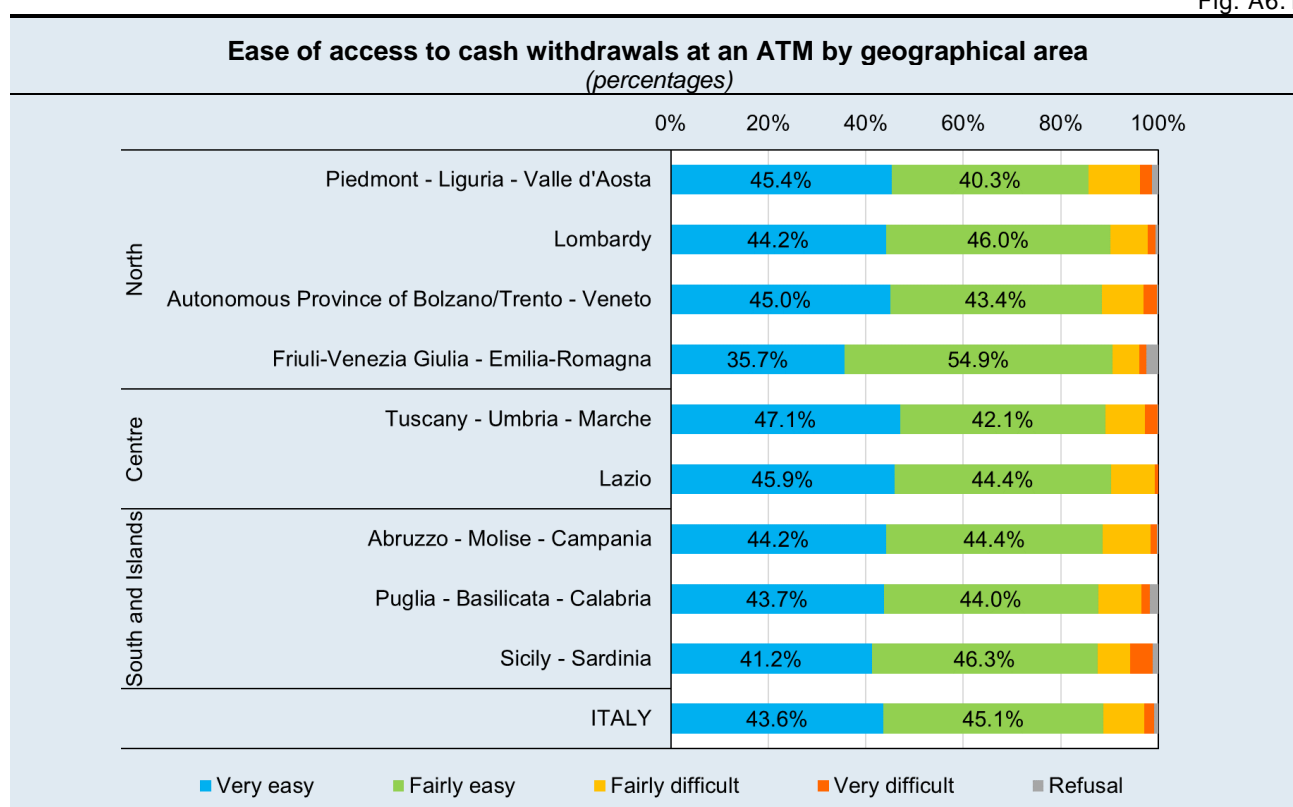
Fig. A5.4



Source: authors' calculations based on ECB SPACE survey data (2024).

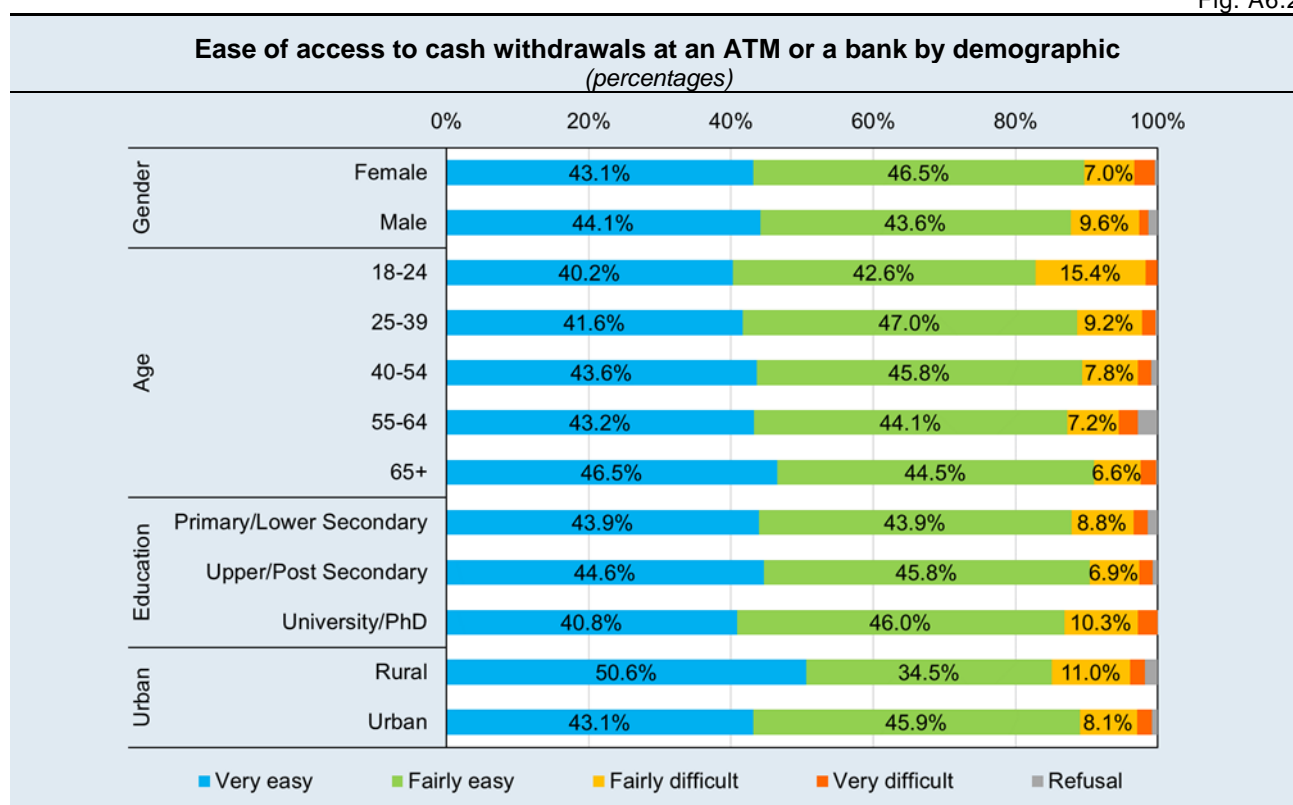
A6. Access to cash in Italy

Fig. A6.1



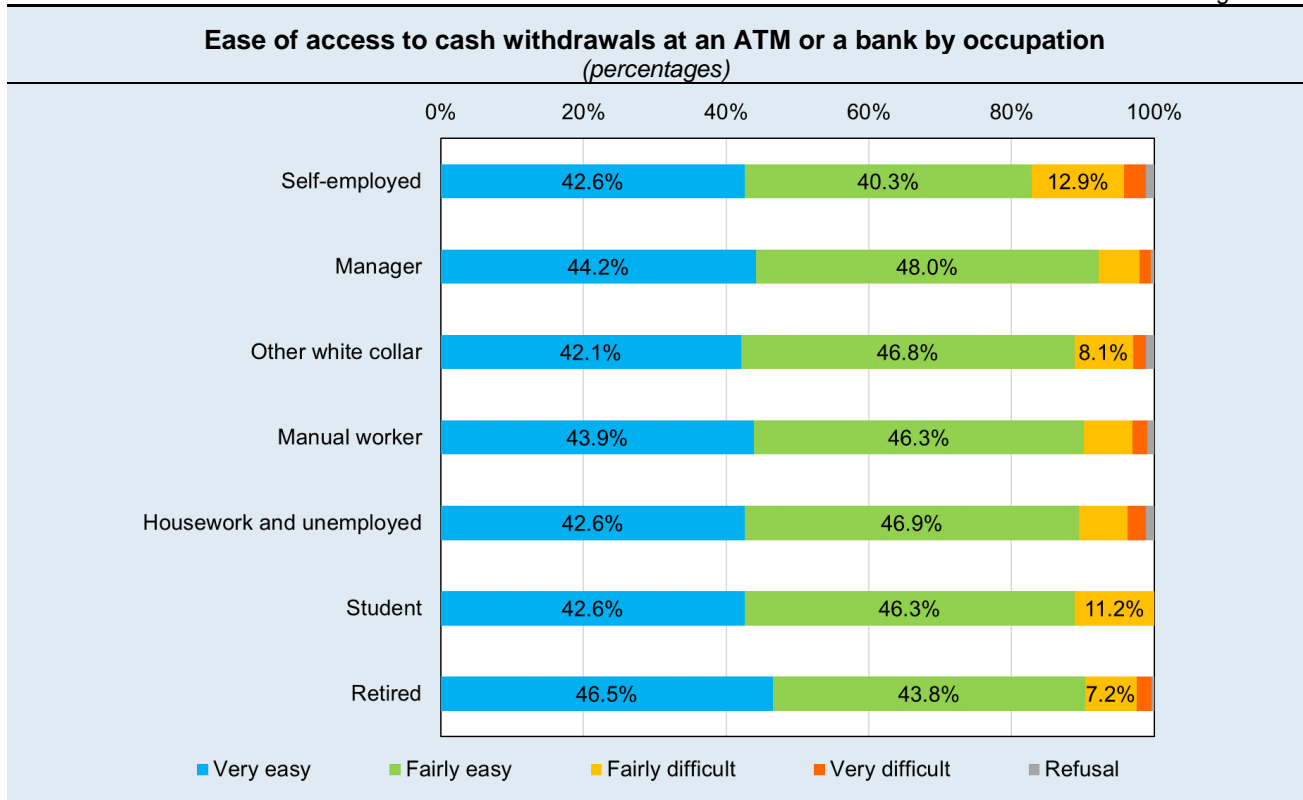
Source: authors' calculations based on ECB SPACE survey data (2024).

Fig. A6.2



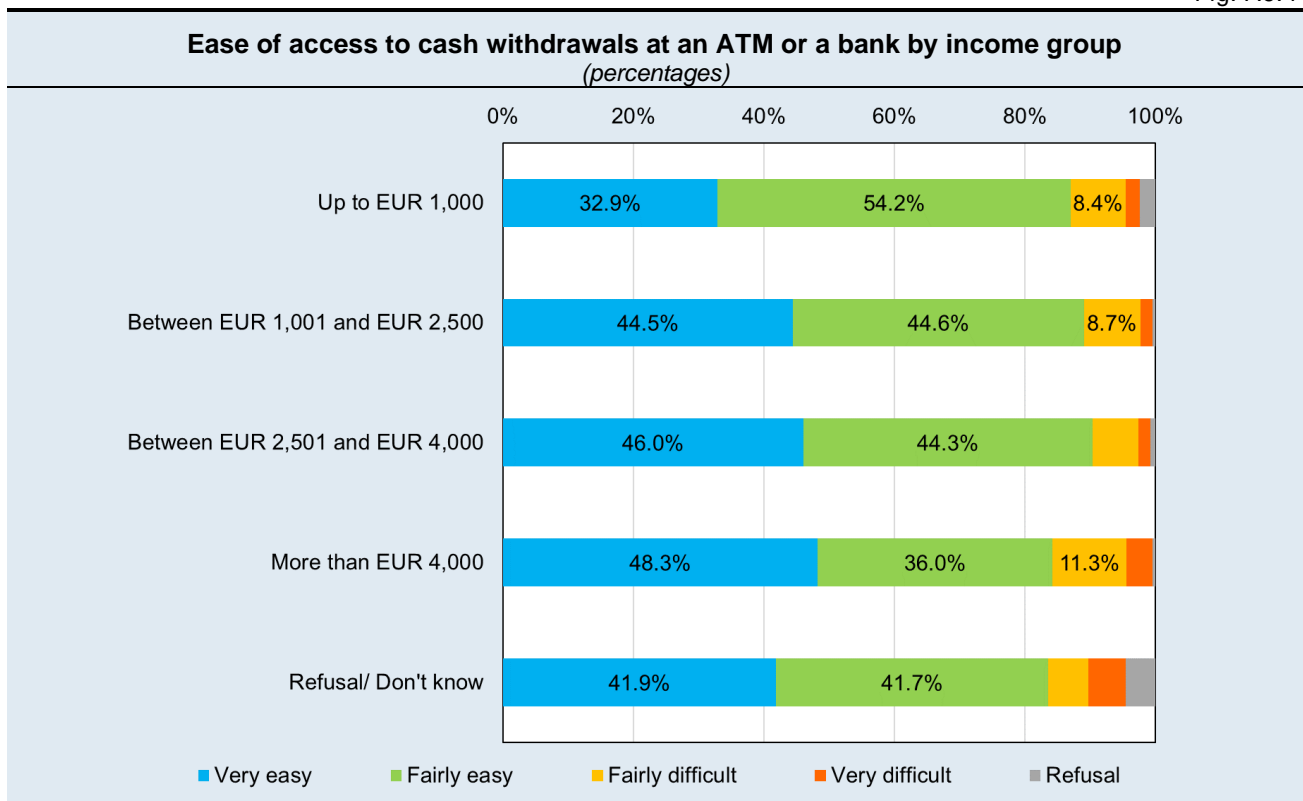
Source: authors' calculations based on ECB SPACE survey data (2024).

Fig. A6.3



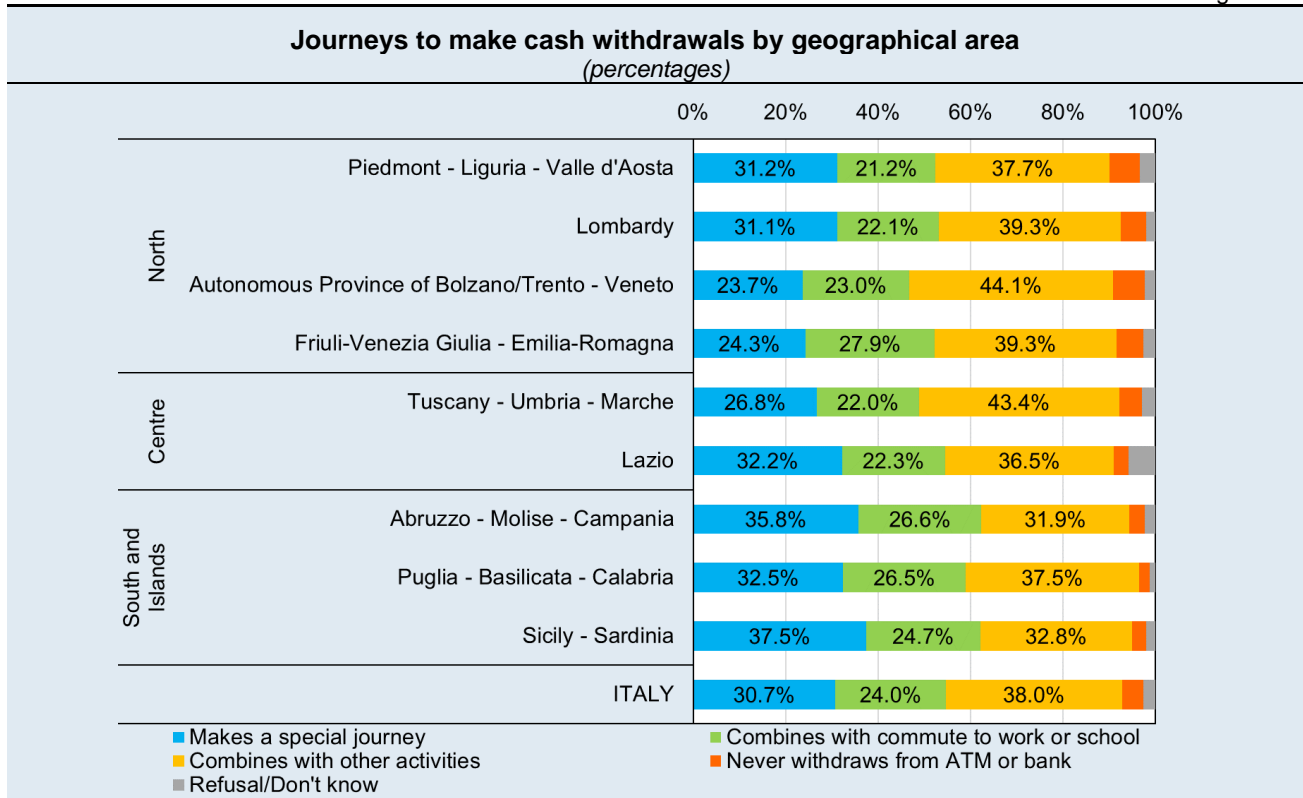
Source: authors' calculations based on ECB SPACE survey data (2024).

Fig. A6.4



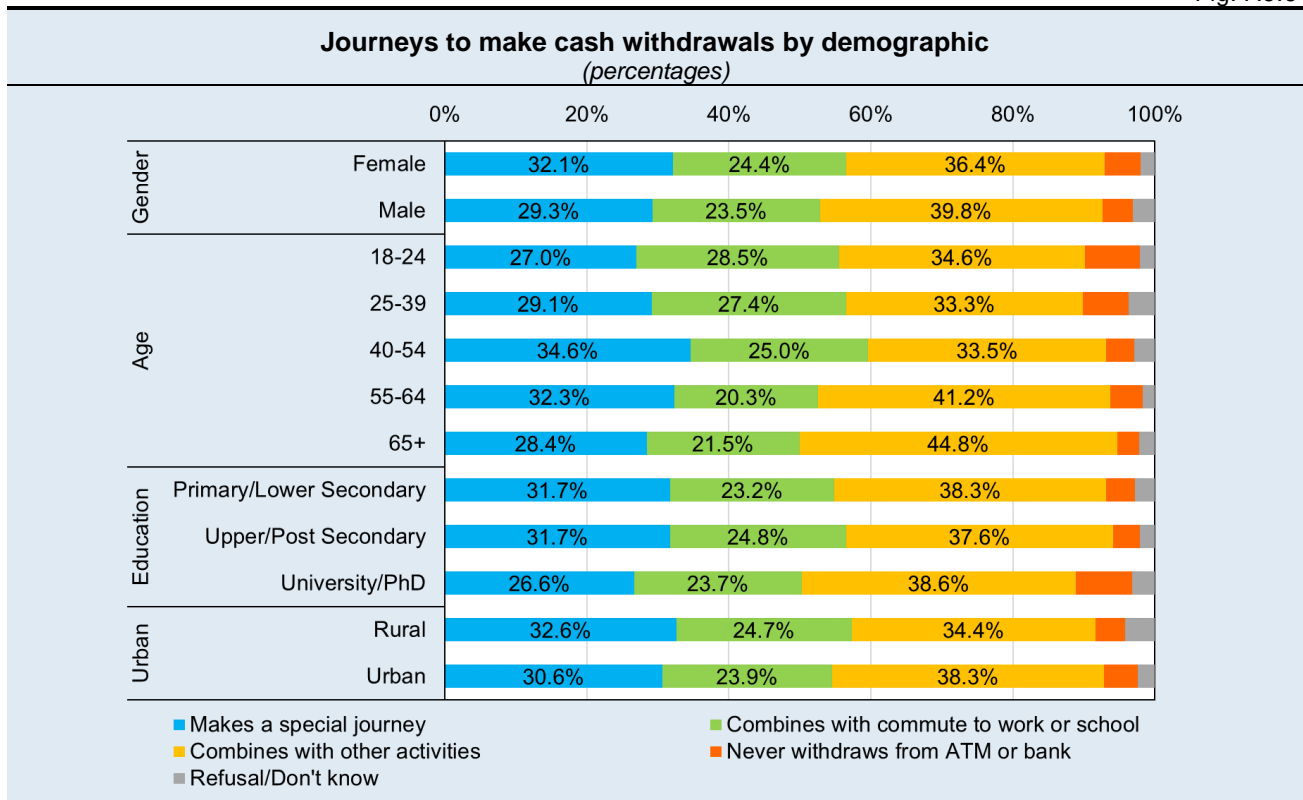
Source: authors' calculations based on ECB SPACE survey data (2024).

Fig. A6.5



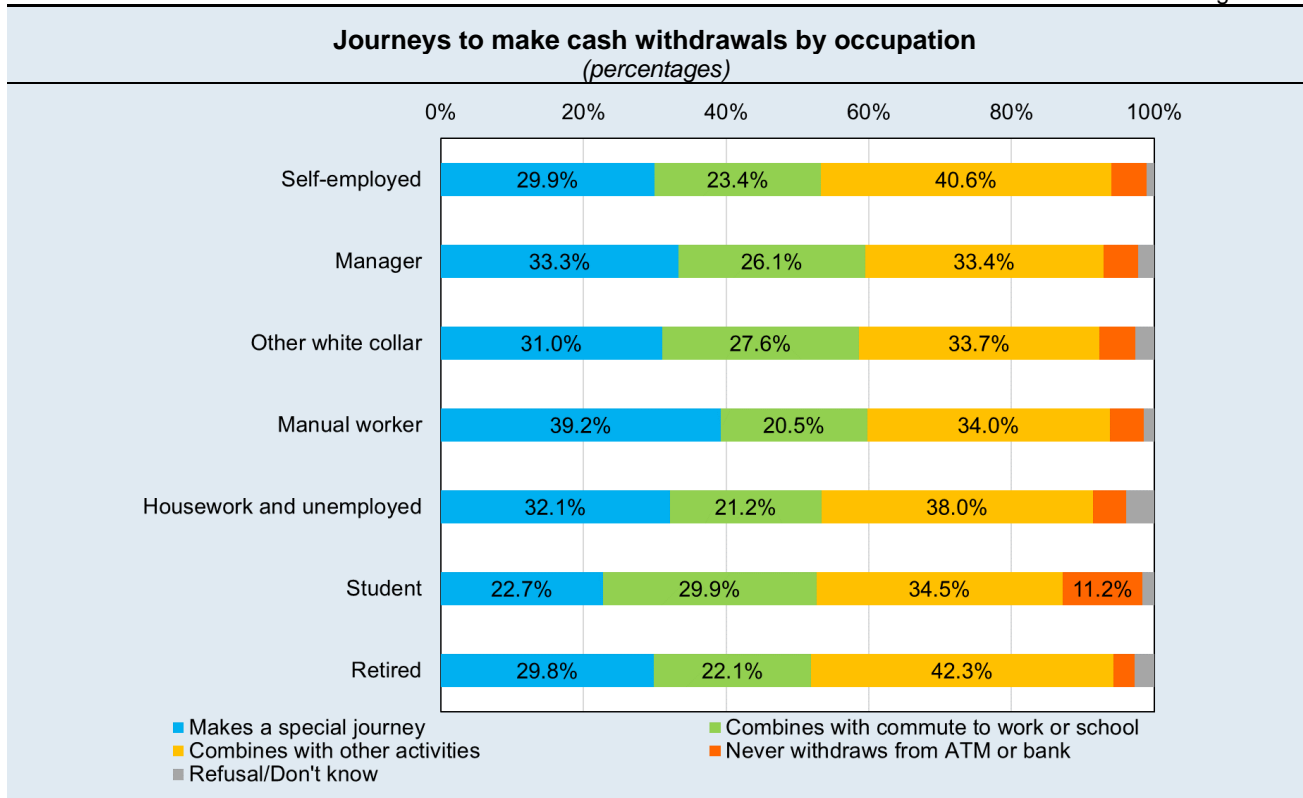
Source: authors' calculations based on ECB SPACE survey data (2024).

Fig. A6.6



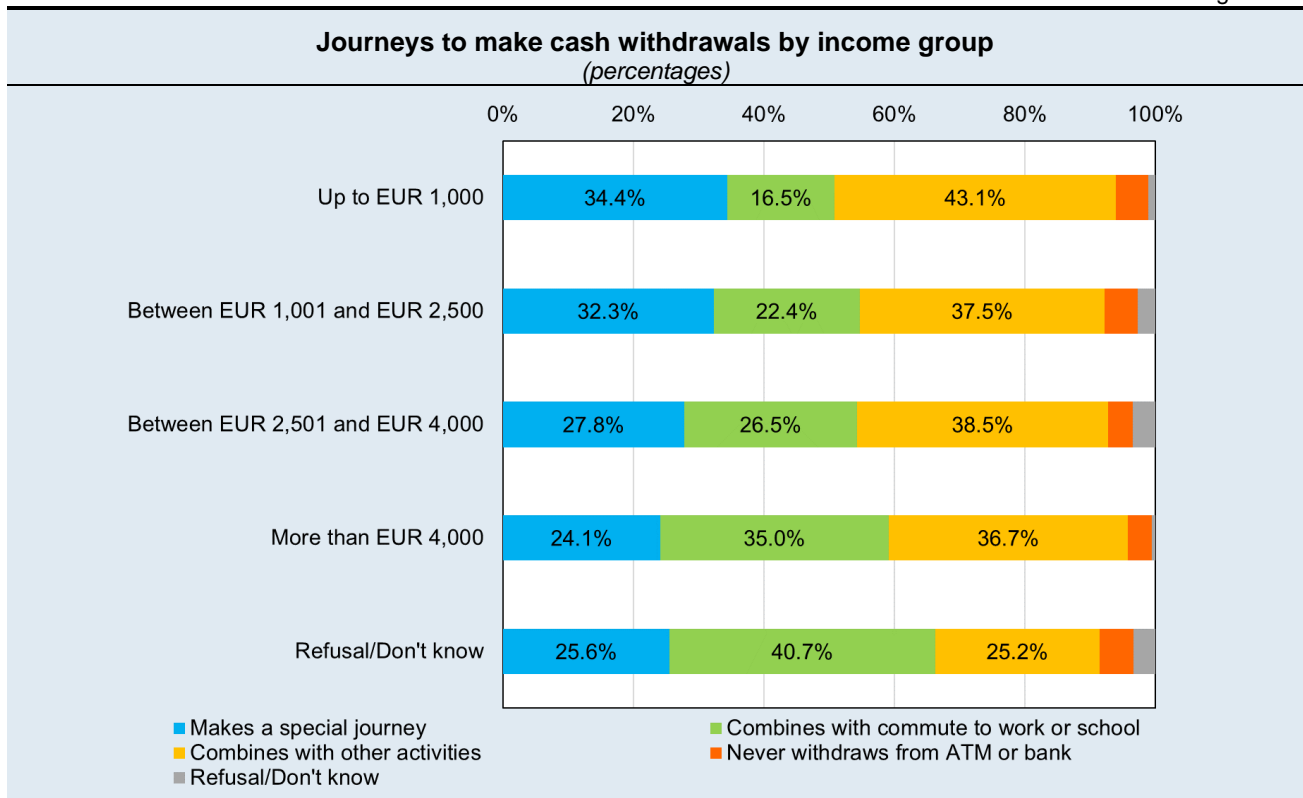
Source: authors' calculations based on ECB SPACE survey data (2024).

Fig. A6.7



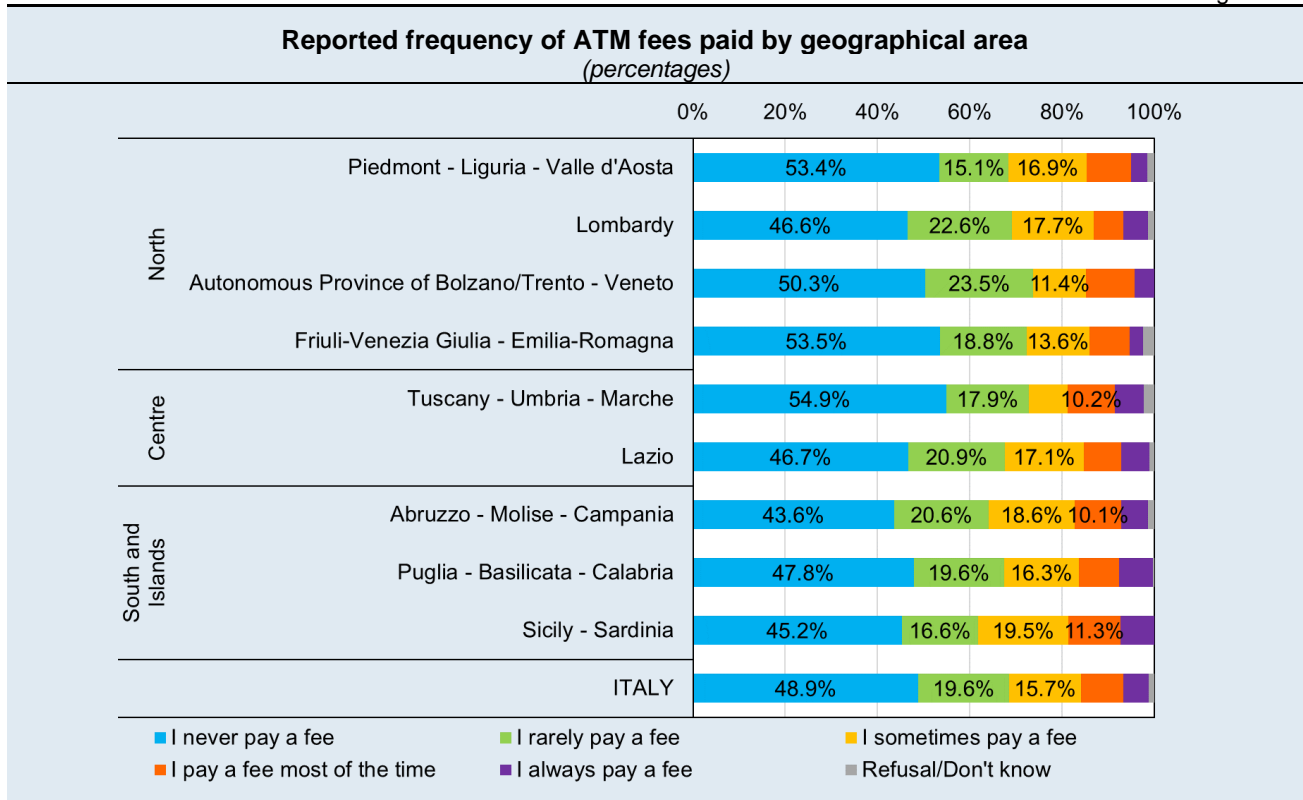
Source: authors' calculations based on ECB SPACE survey data (2024).

Fig. A6.8



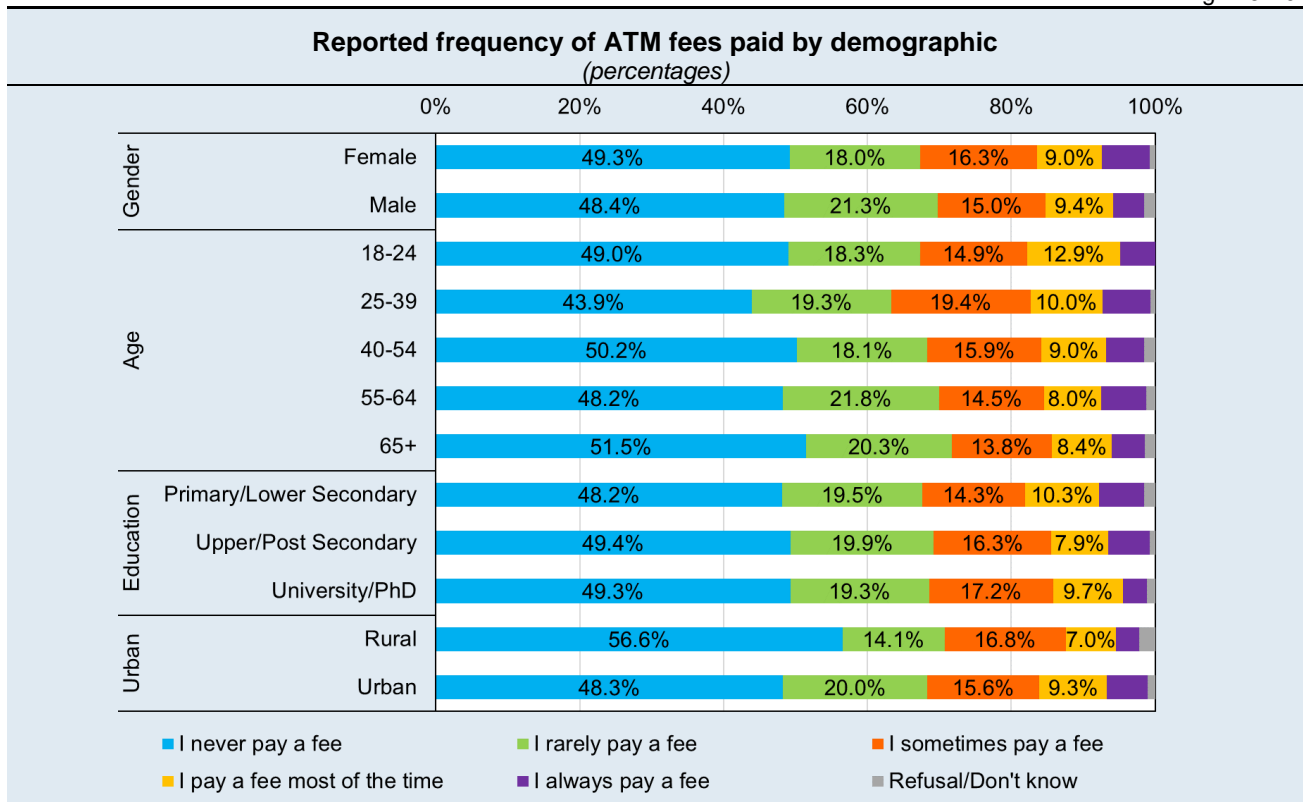
Source: authors' calculations based on ECB SPACE survey data (2024).

Fig. A6.9



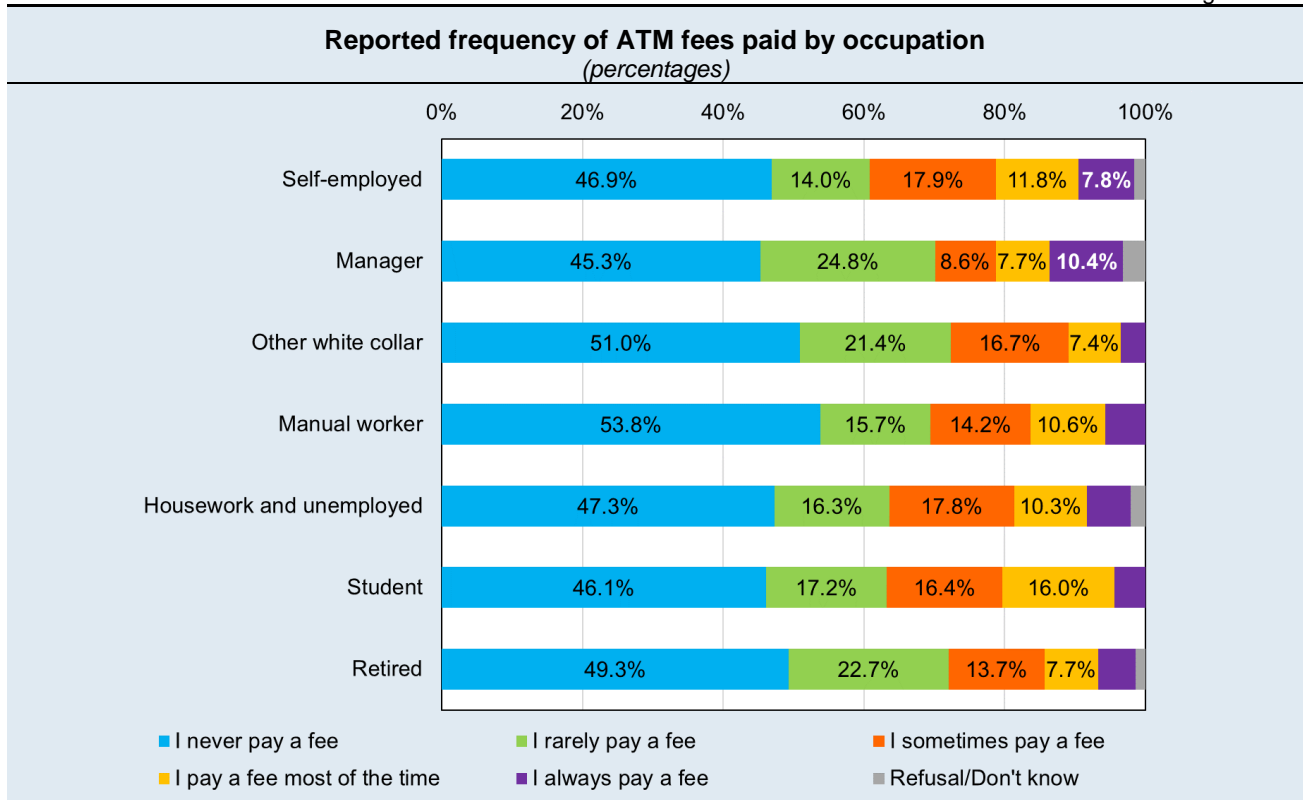
Source: authors' calculations based on ECB SPACE survey data (2024).

Fig. A6.10



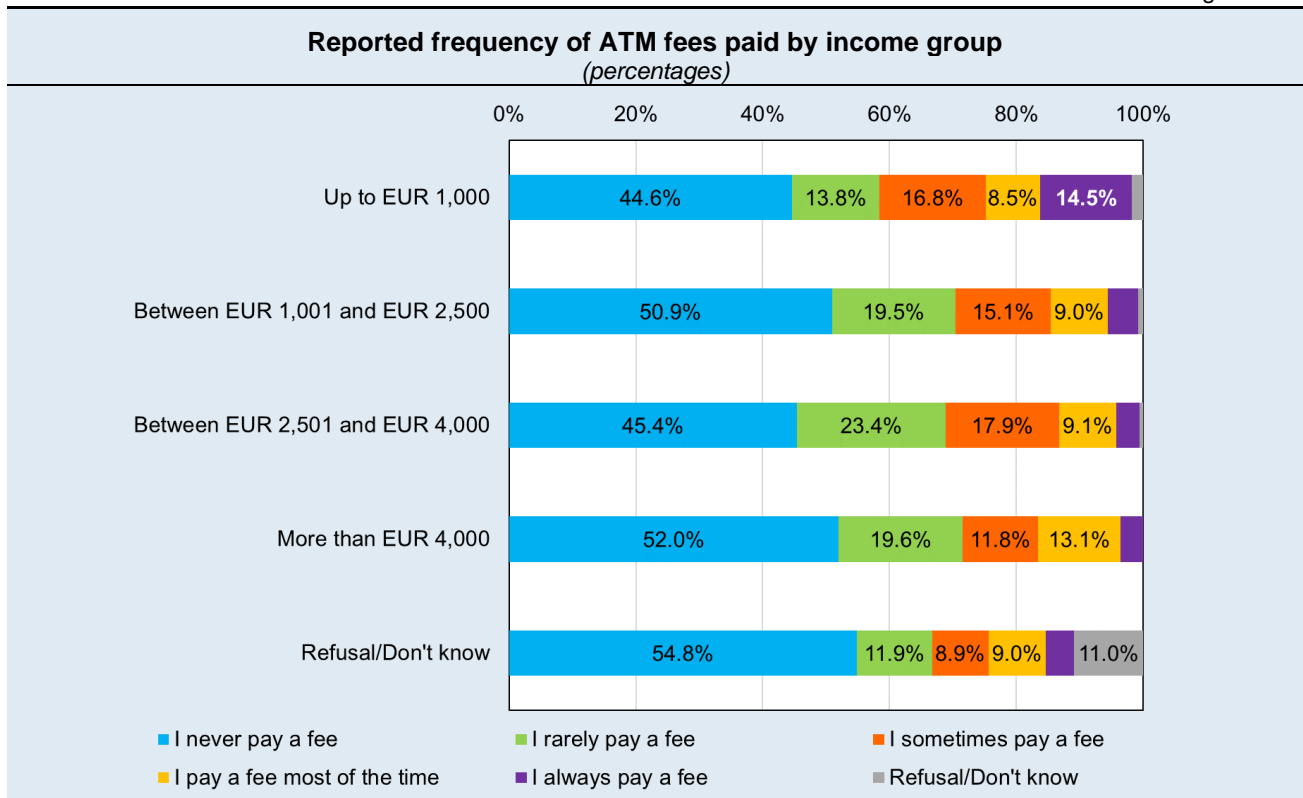
Source: authors' calculations based on ECB SPACE survey data (2024).

Fig. A6.11



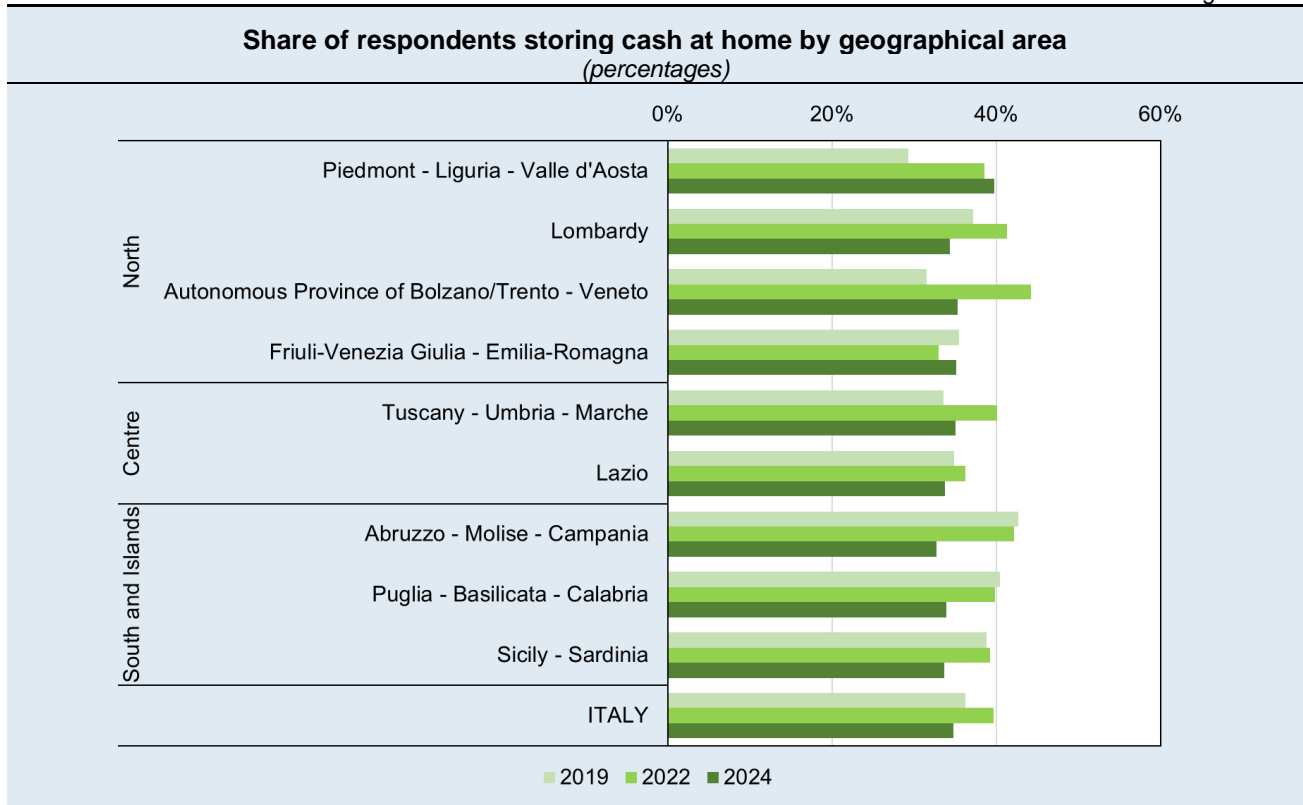
Source: authors' calculations based on ECB SPACE survey data (2024).

Fig. A6.12



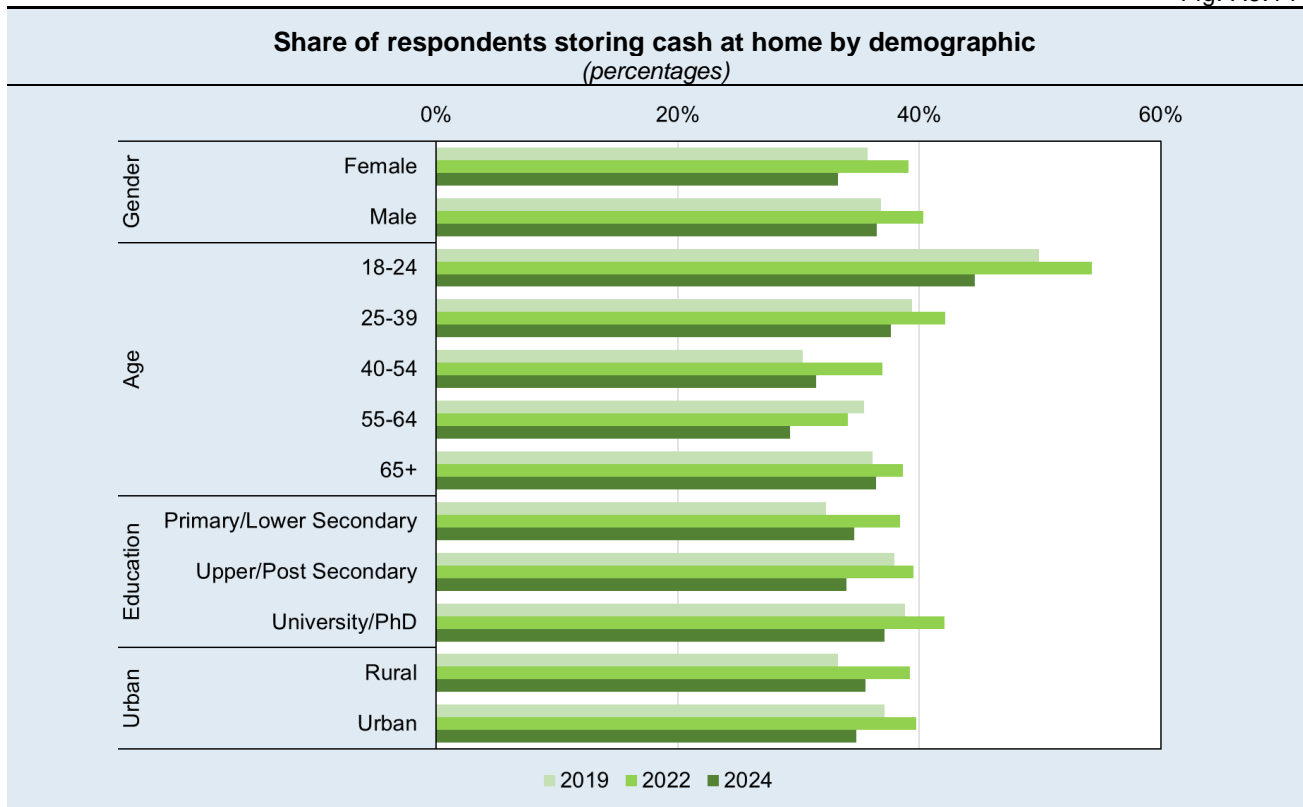
Source: authors' calculations based on ECB SPACE survey data (2024).

Fig. A6.13



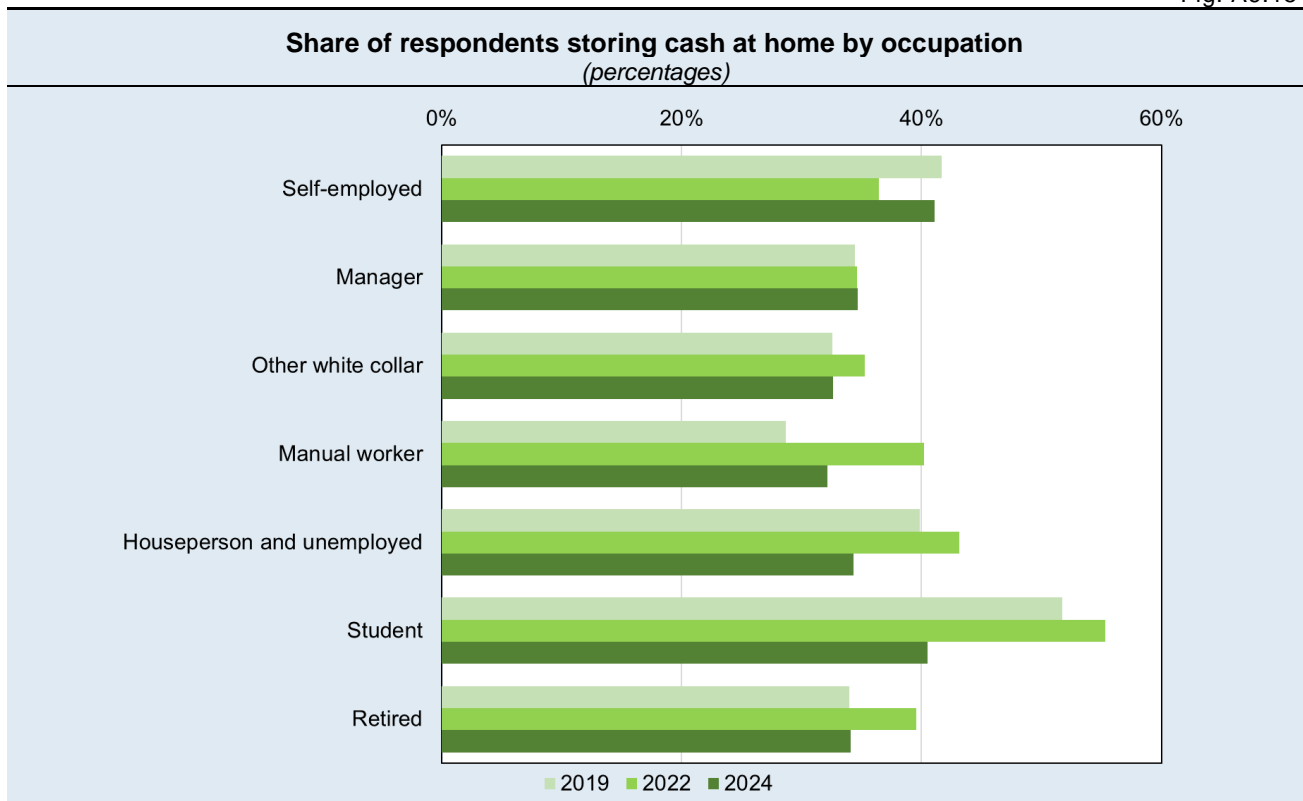
Source: authors' calculations based on ECB SPACE survey data (2019, 2022 and 2024).

Fig. A6.14



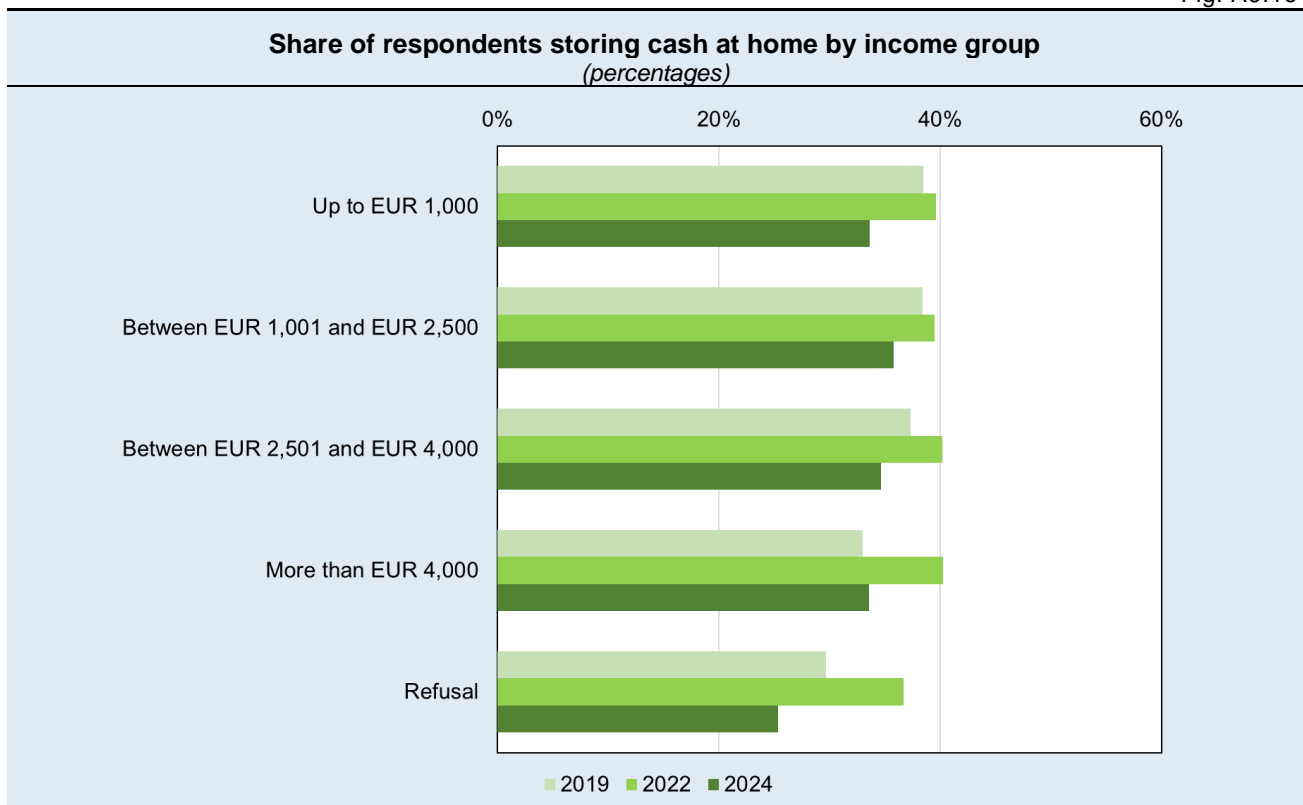
Source: authors' calculations based on ECB SPACE survey data (2019, 2022 and 2024).

Fig. A6.15



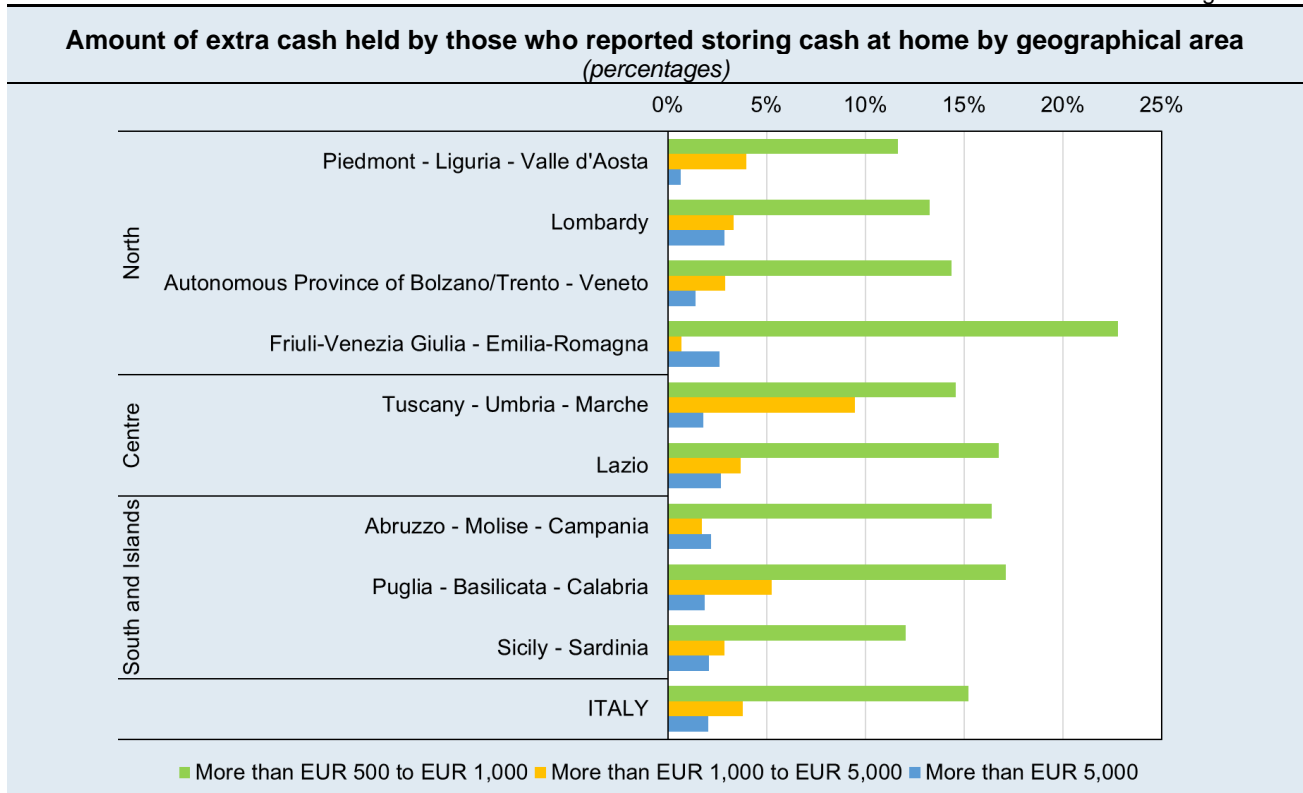
Source: authors' calculations based on ECB SPACE survey data (2019, 2022 and 2024).

Fig. A6.16



Source: authors' calculations based on ECB SPACE survey data (2019, 2022 and 2024).

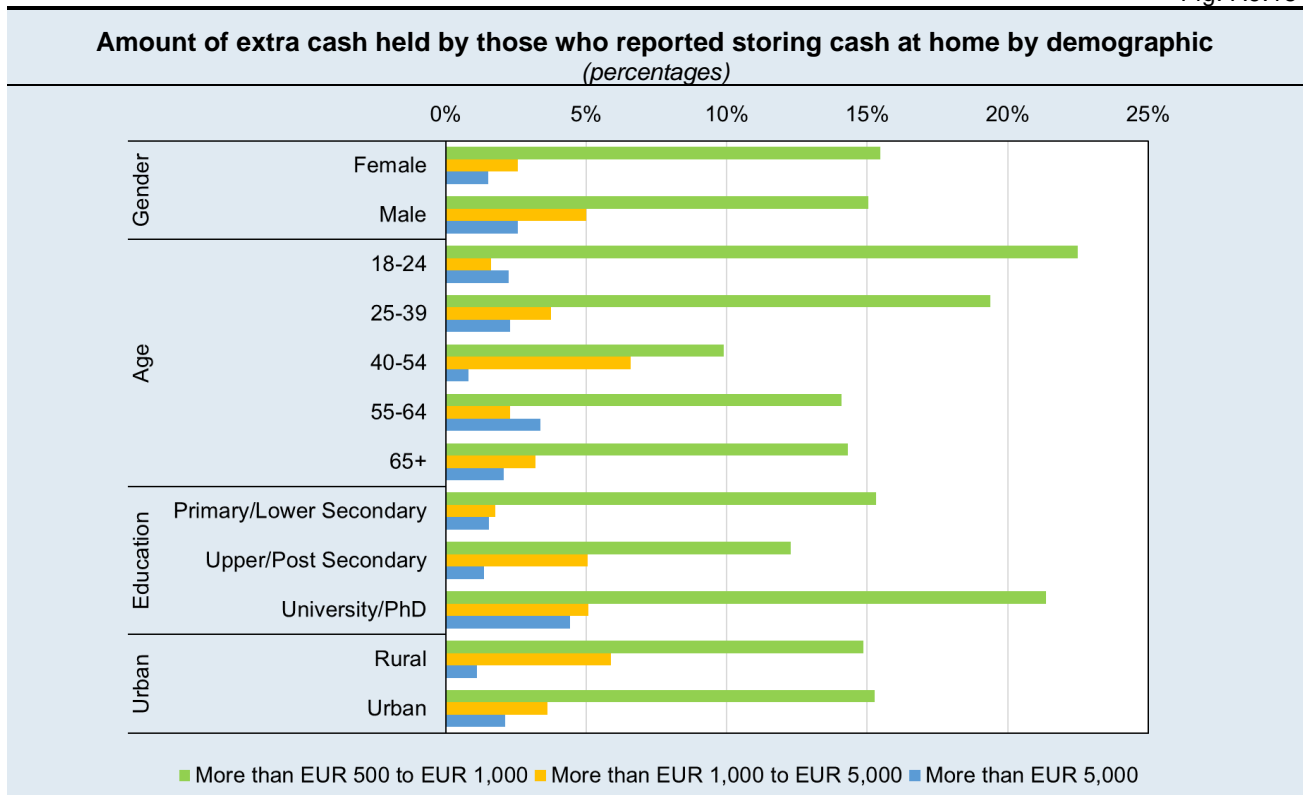
Fig. A6.17



Source: authors' calculations based on ECB SPACE survey data (2024).

Note: the category "Up to EUR 500" is not shown in the graph, as it would be out of scale.

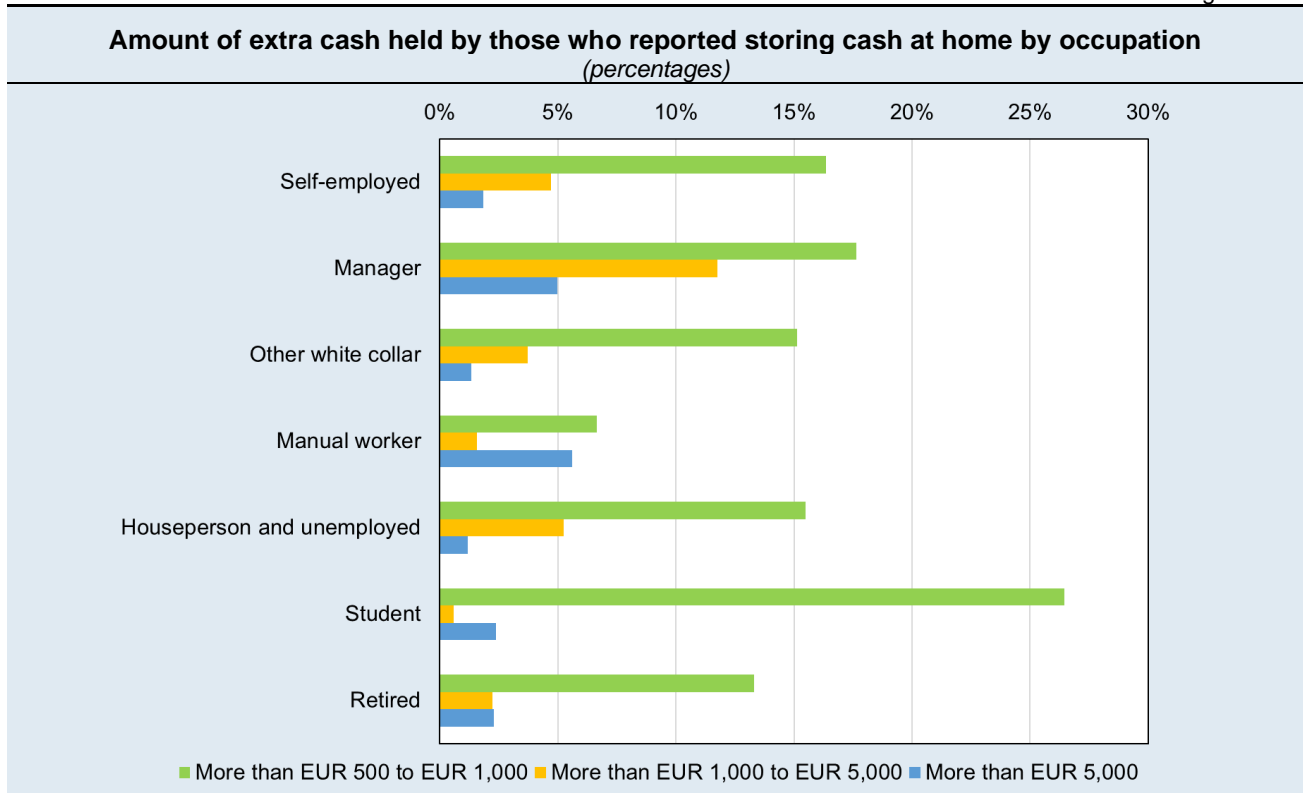
Fig. A6.18



Source: authors' calculations based on ECB SPACE survey data (2024).

Note: the category "Up to EUR 500" is not shown in the graph, as it would be out of scale.

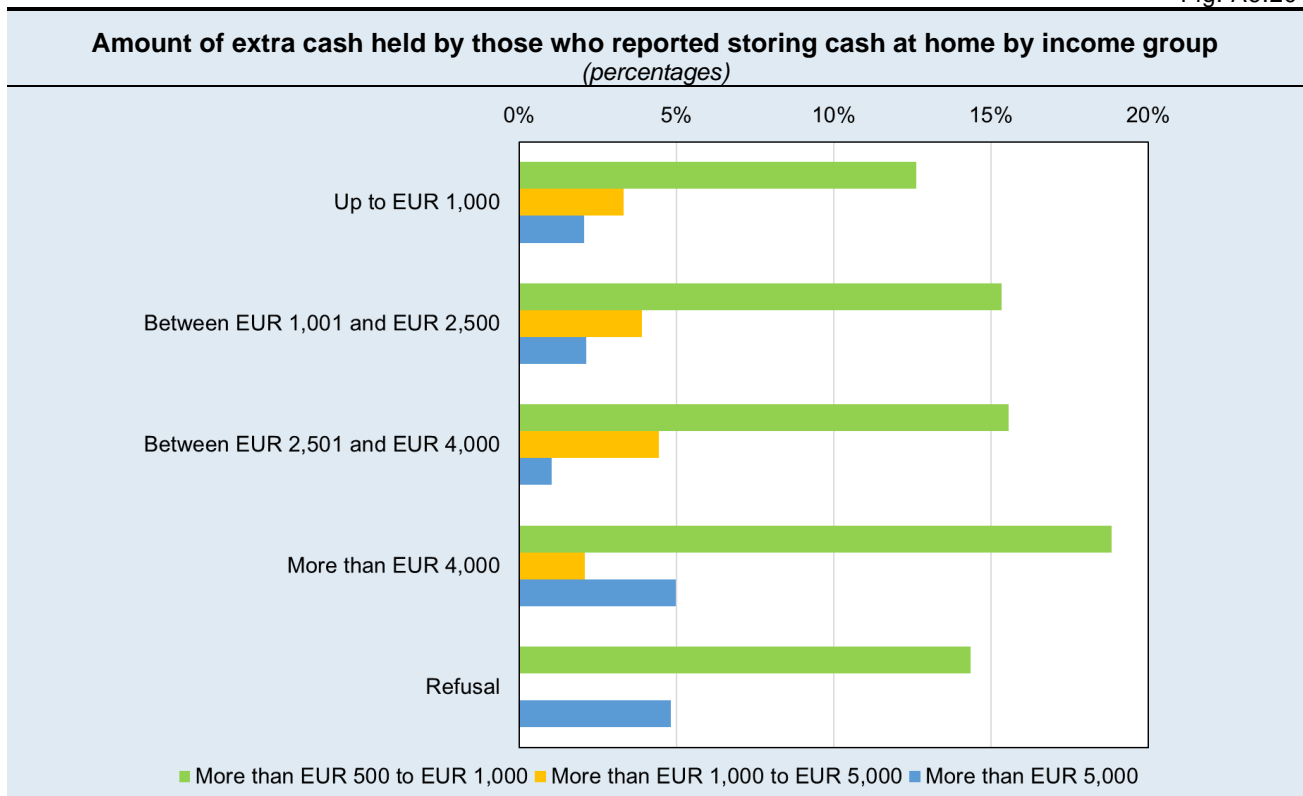
Fig. A6.19



Source: authors' calculations based on ECB SPACE survey data (2024).

Note: the category "Up to EUR 500" is not shown in the graph, as it would be out of scale.

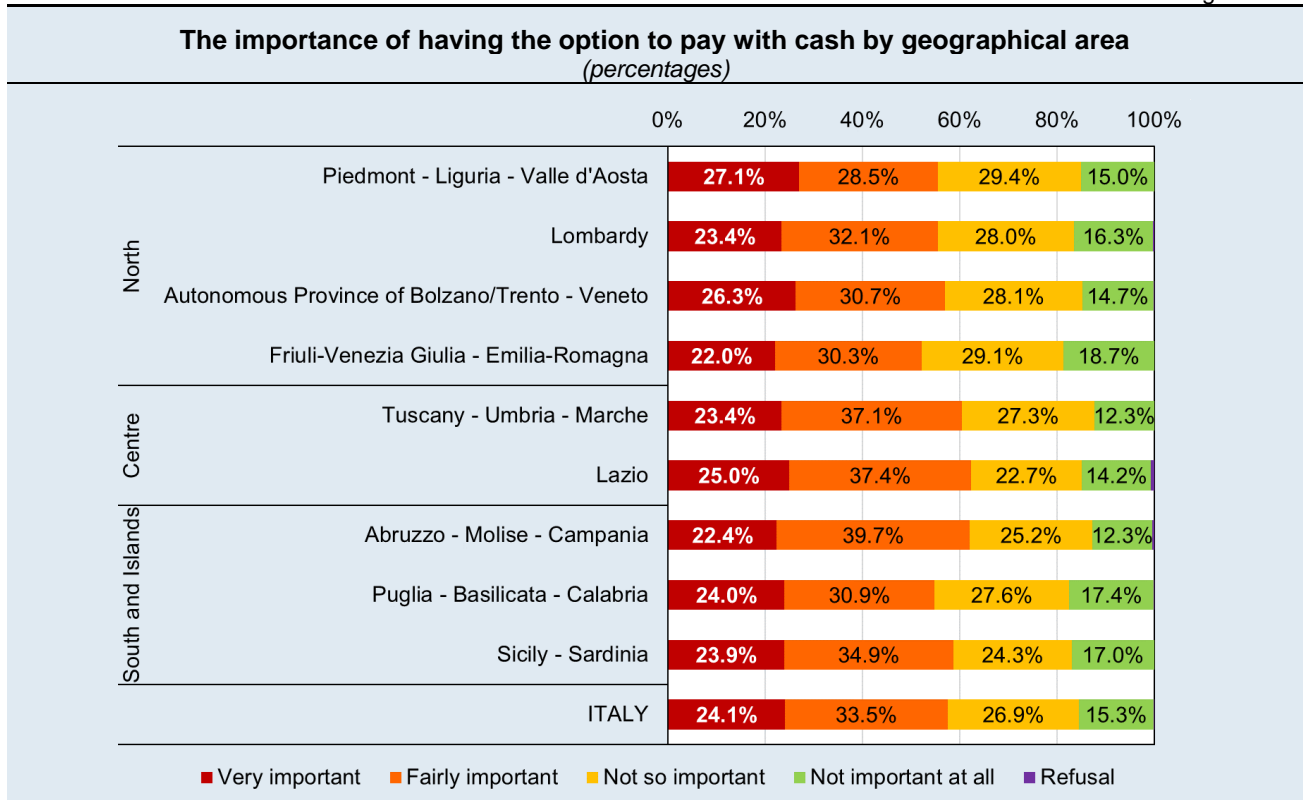
Fig. A6.20



Source: authors' calculations based on ECB SPACE survey data (2024).

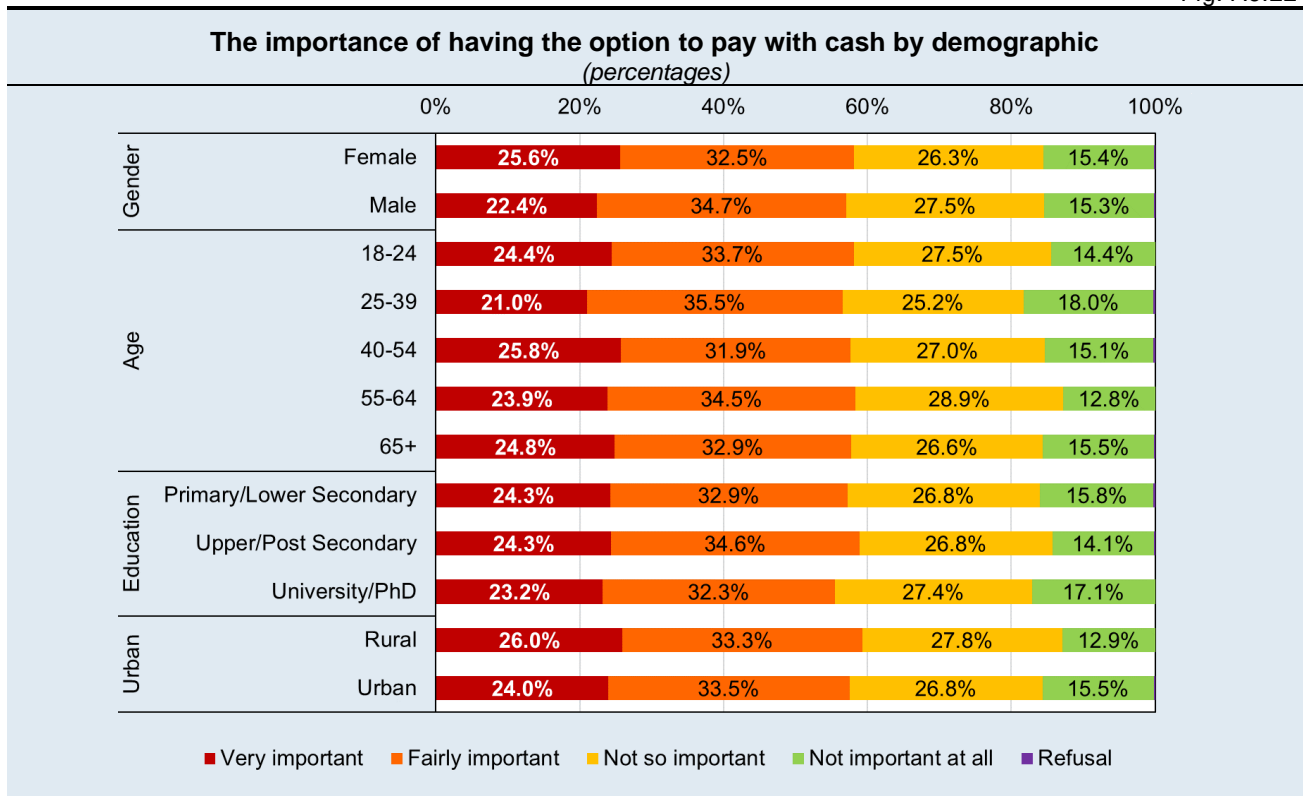
Note: the category "Up to EUR 500" is not shown in the graph, as it would be out of scale.

Fig. A6.21



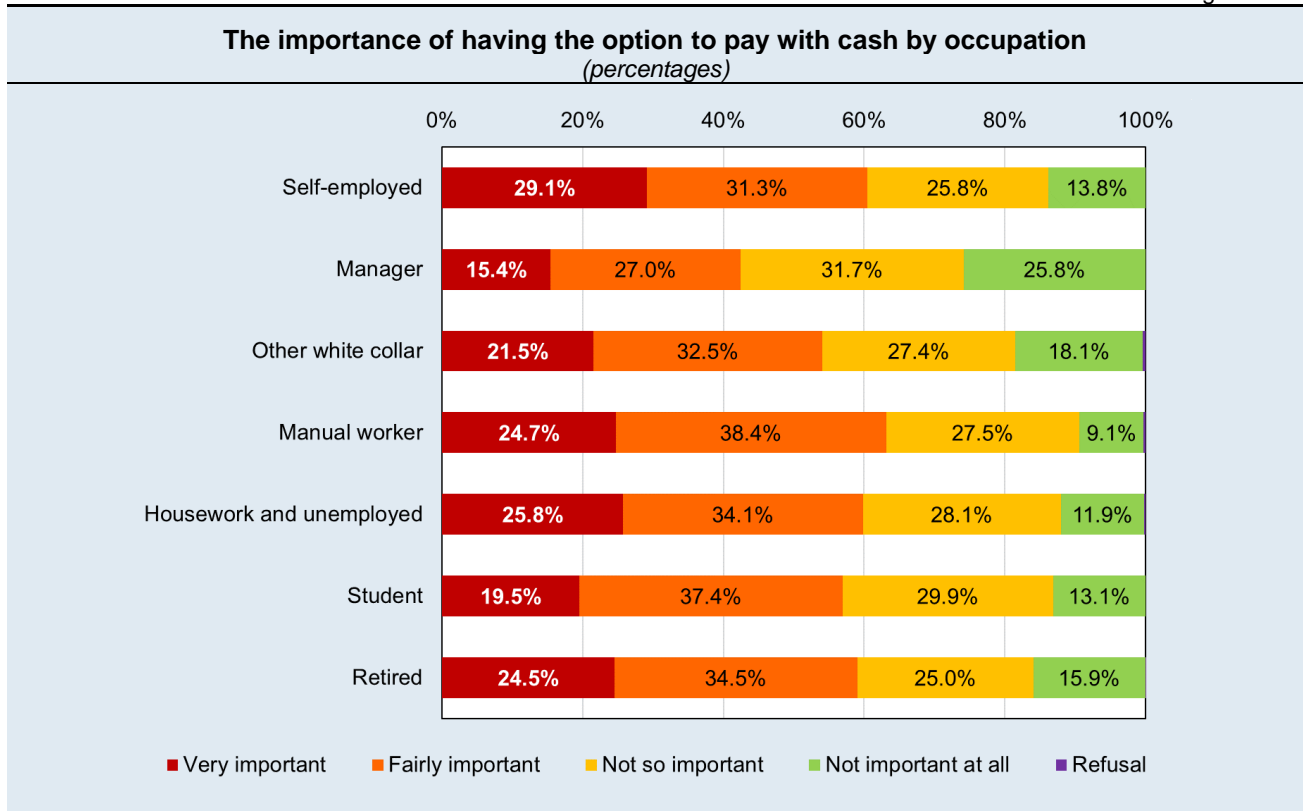
Source: authors' calculations based on ECB SPACE data (2024).

Fig. A6.22



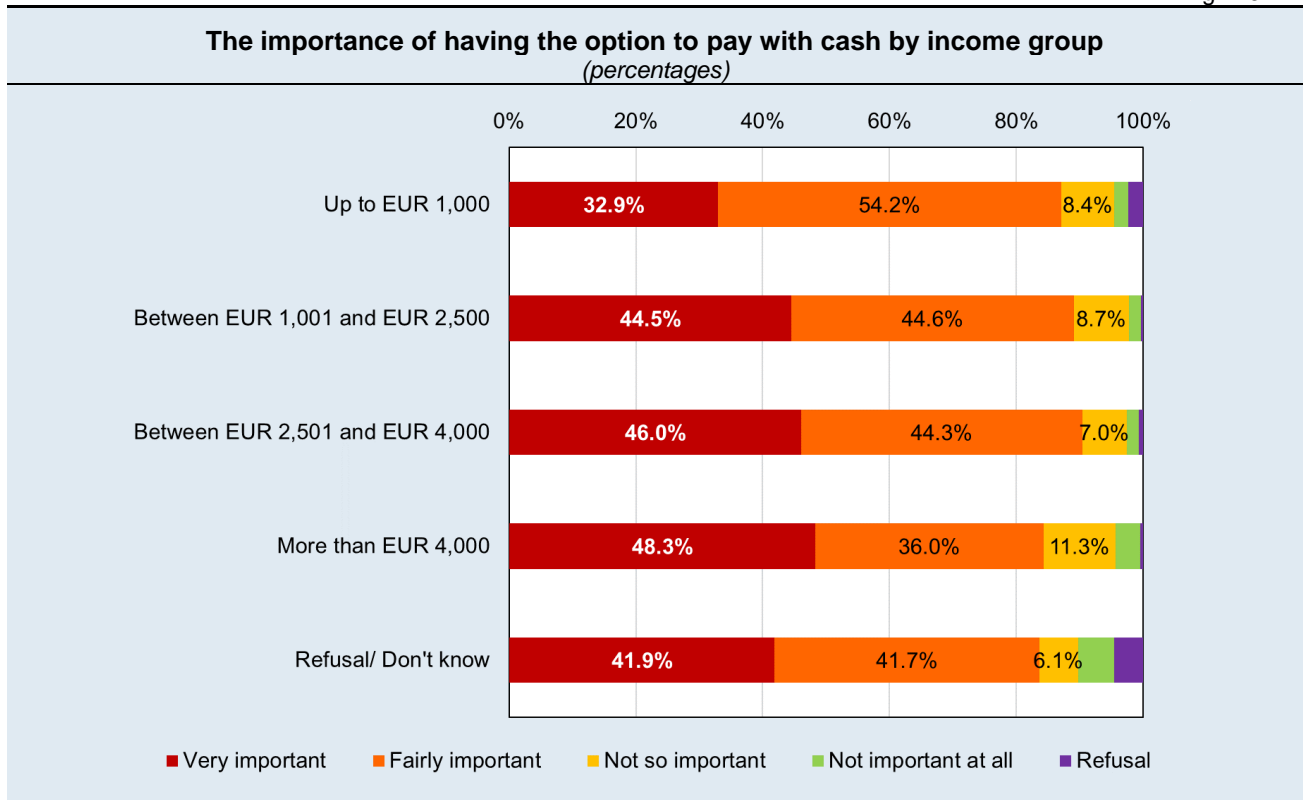
Source: authors' calculations based on ECB SPACE survey data (2024).

Fig. A6.23



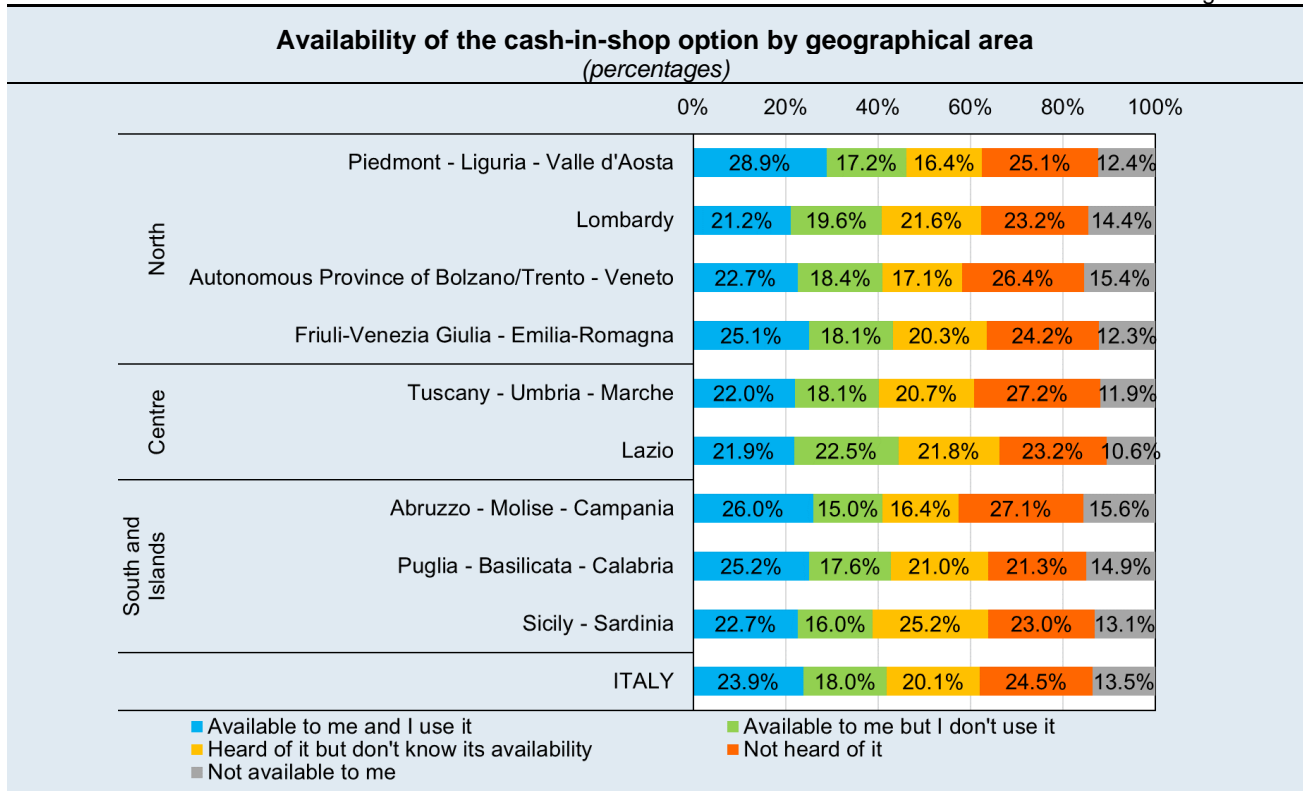
Source: authors' calculations based on ECB SPACE survey data (2024).

Fig. A6.24



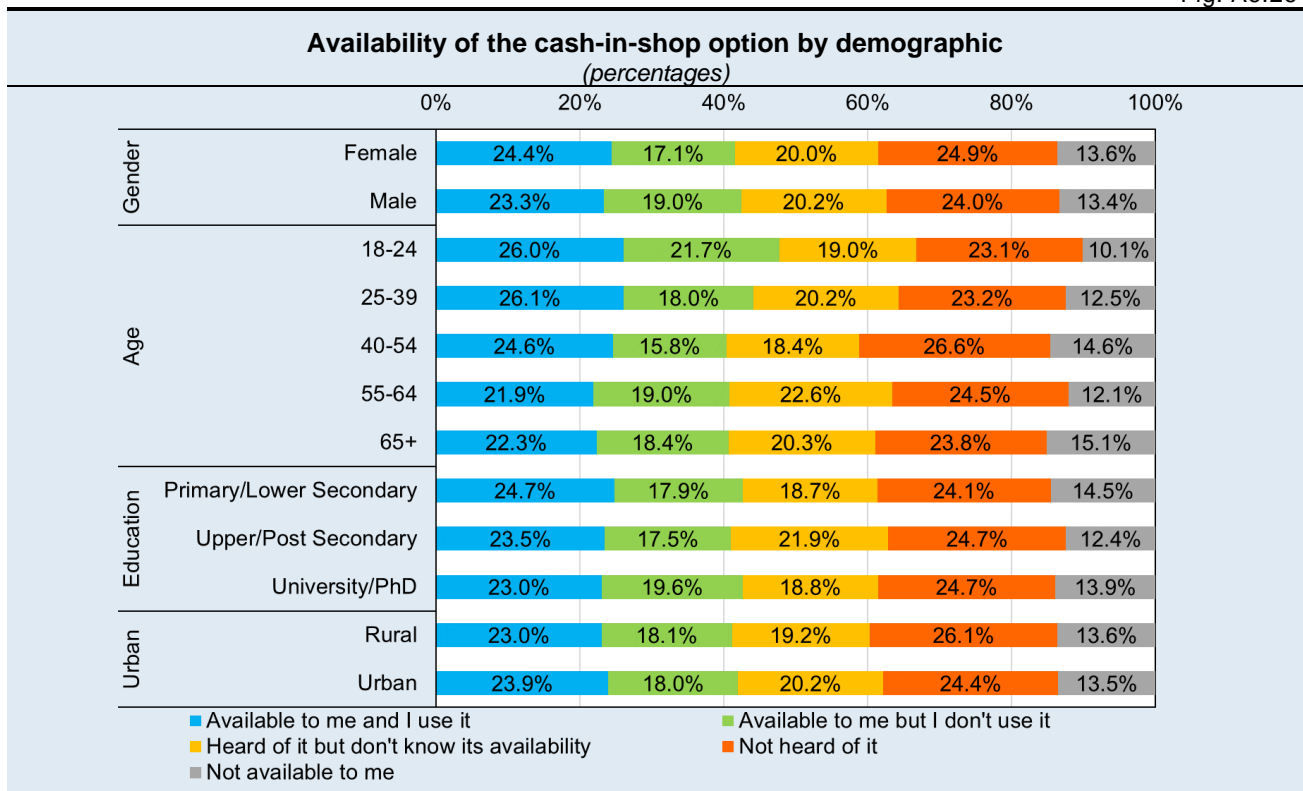
Source: authors' calculations based on ECB SPACE survey data (2024).

Fig. A6.25



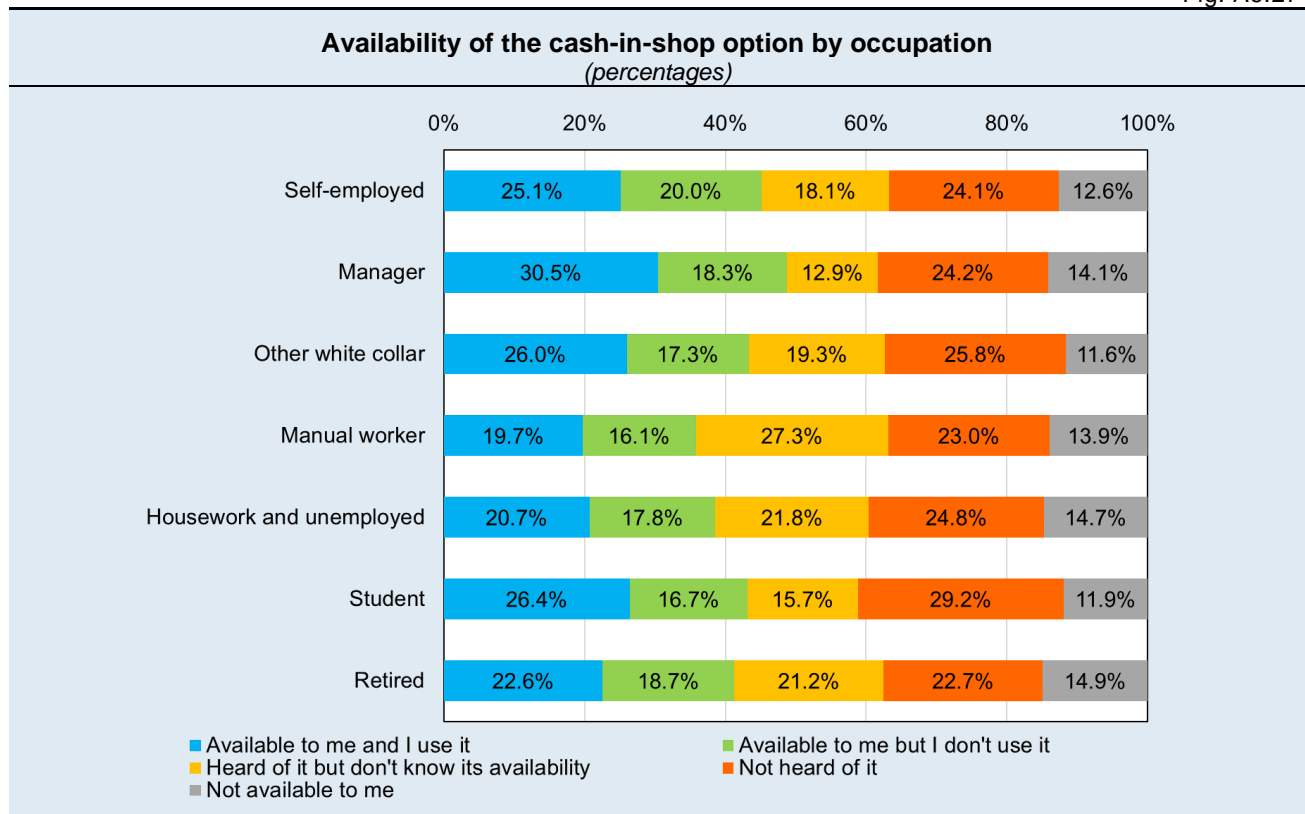
Source: authors' calculations based on ECB SPACE data (2024).

Fig. A6.26



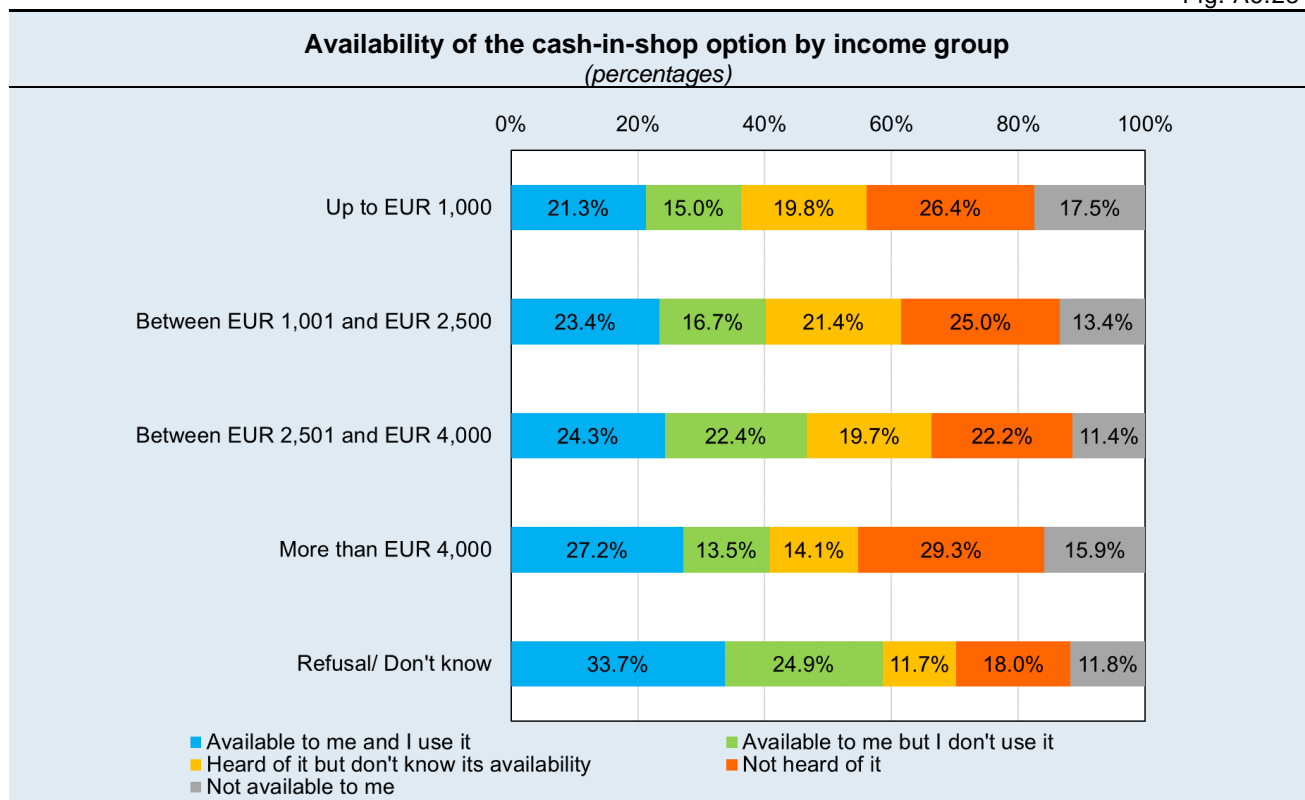
Source: authors' calculations based on ECB SPACE survey data (2024).

Fig. A6.27



Source: authors' calculations based on ECB SPACE survey data (2024).

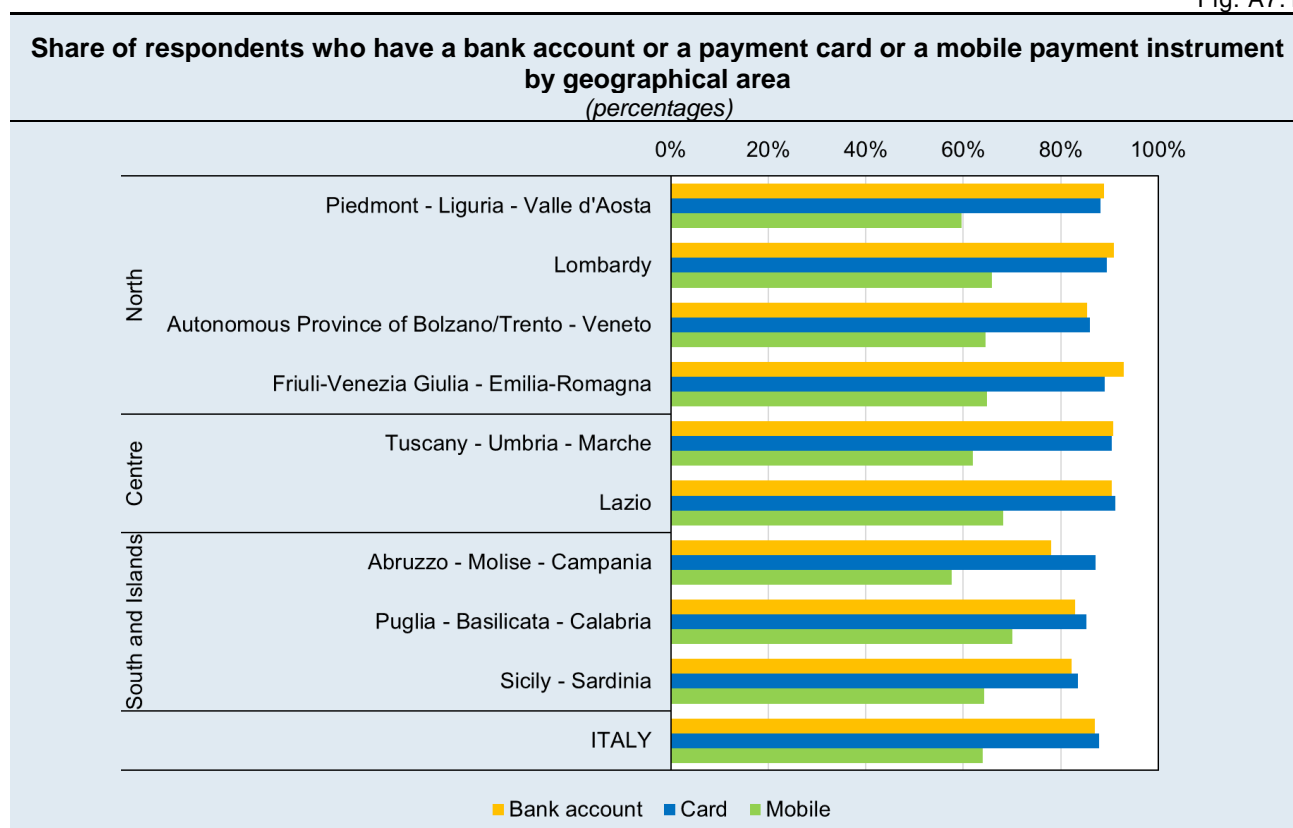
Fig. A6.28



Source: authors' calculations based on ECB SPACE survey data (2024).

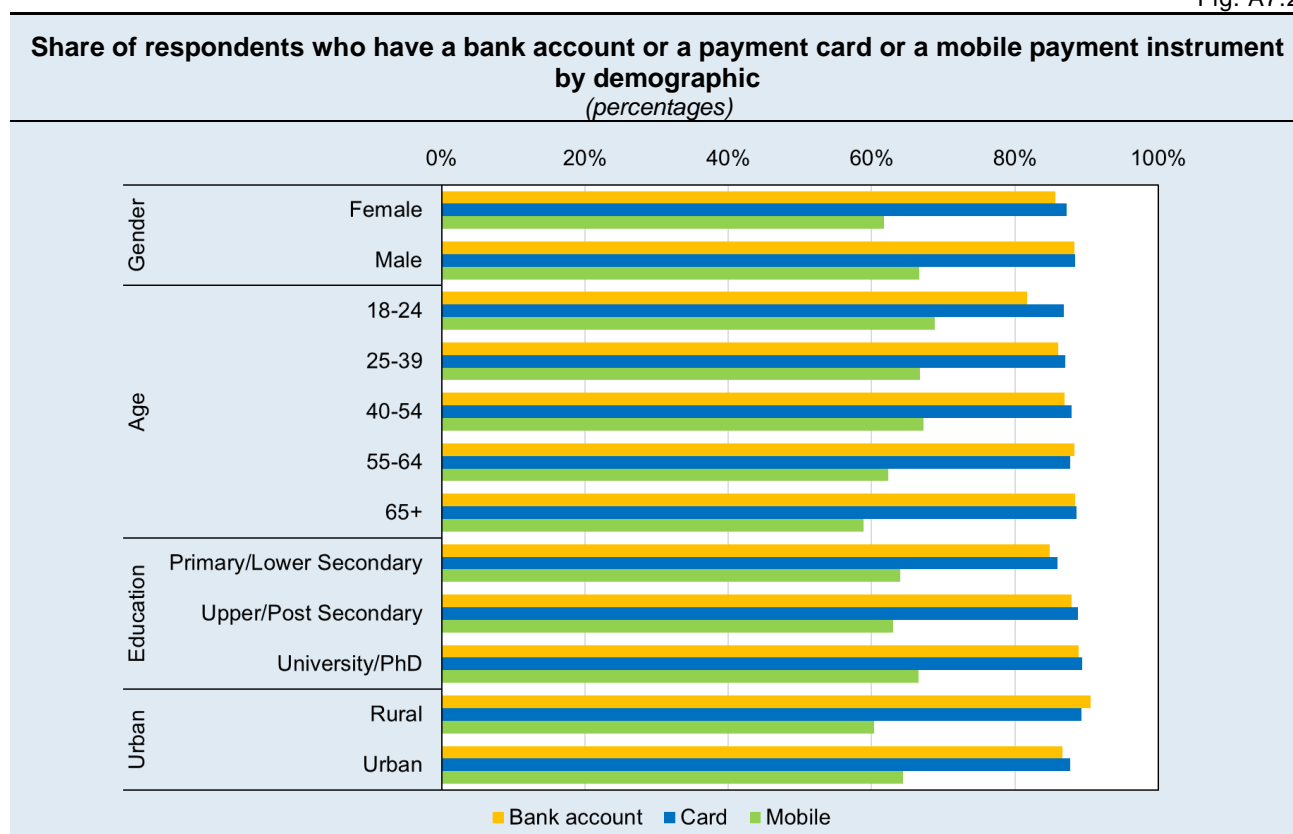
A7. Access to payment instruments in Italy

Fig. A7.1



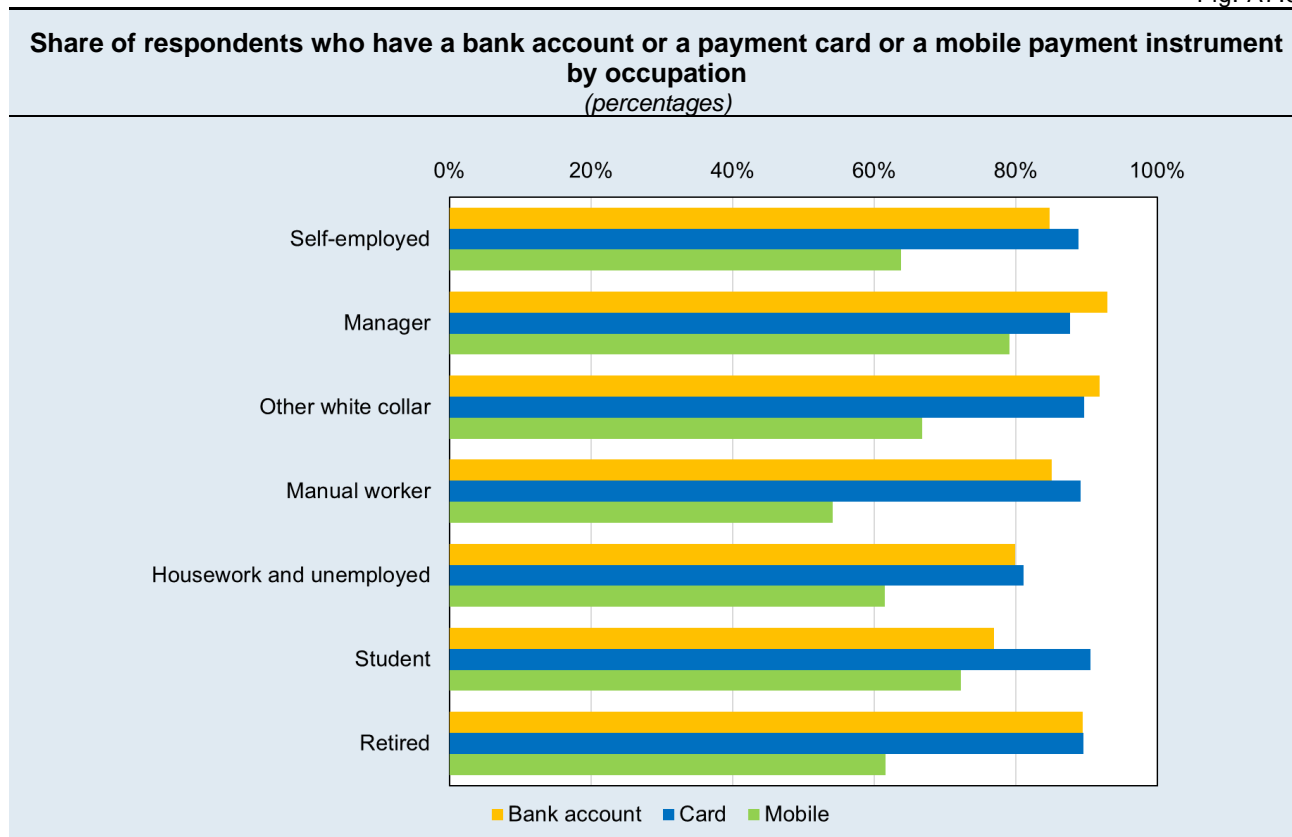
Source: authors' calculations based on ECB SPACE survey data (2024).

Fig. A7.2



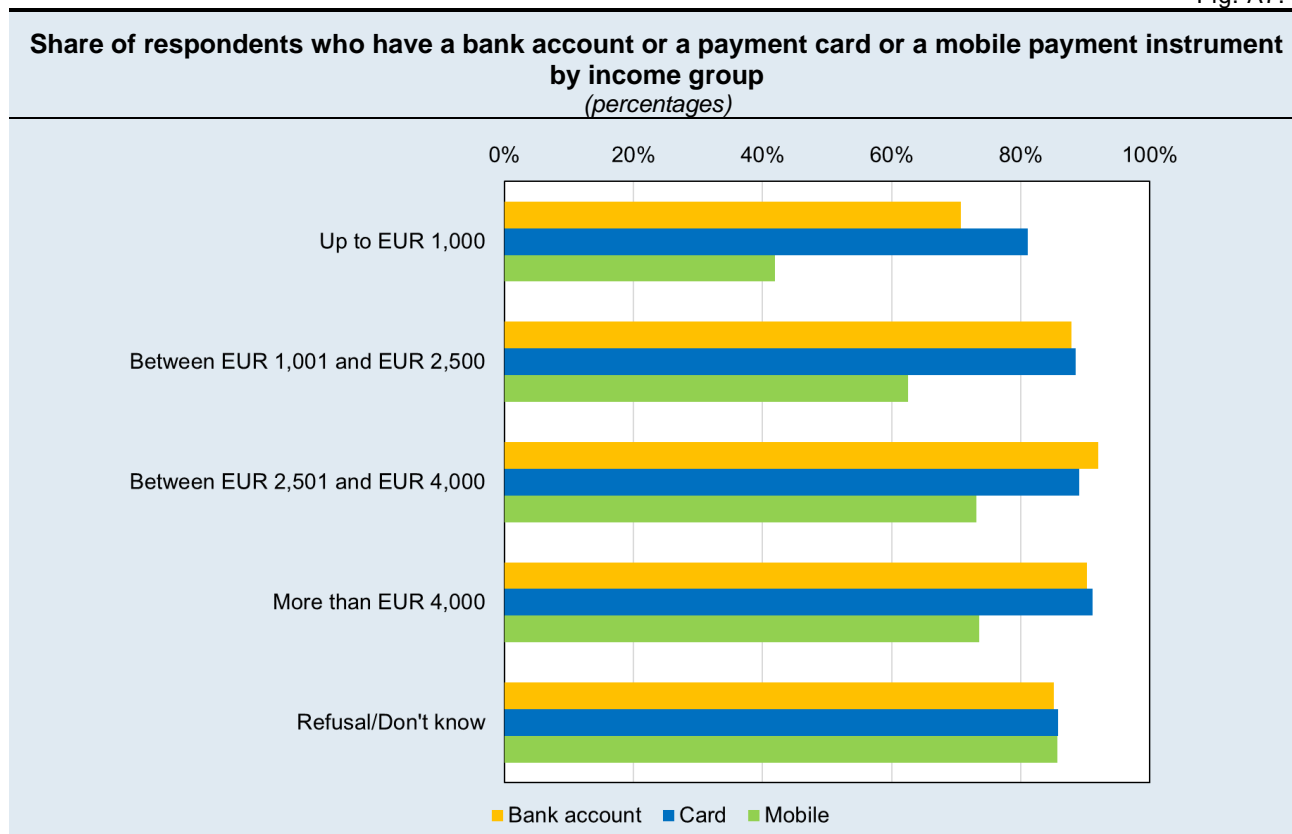
Source: authors' calculations based on ECB SPACE survey data (2024).

Fig. A7.3



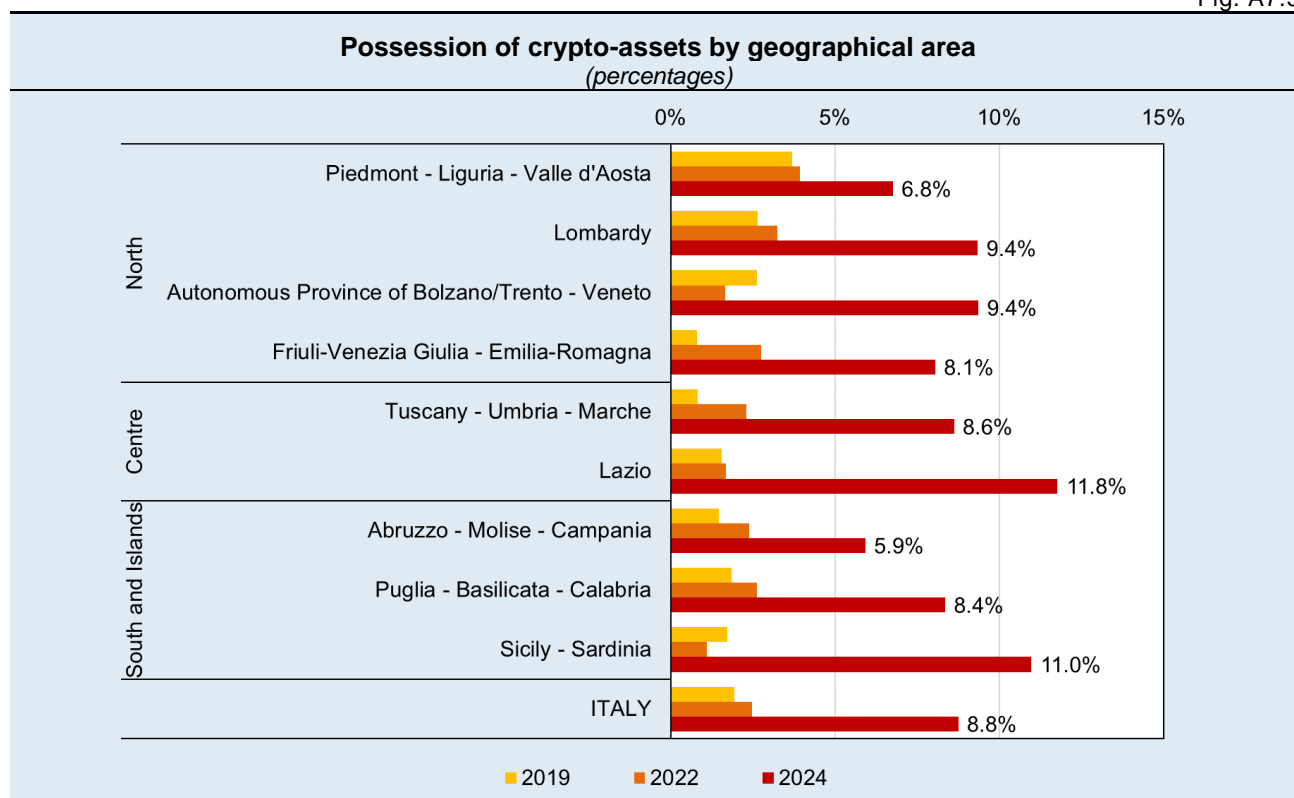
Source: authors' calculations based on ECB SPACE survey data (2024).

Fig. A7.4



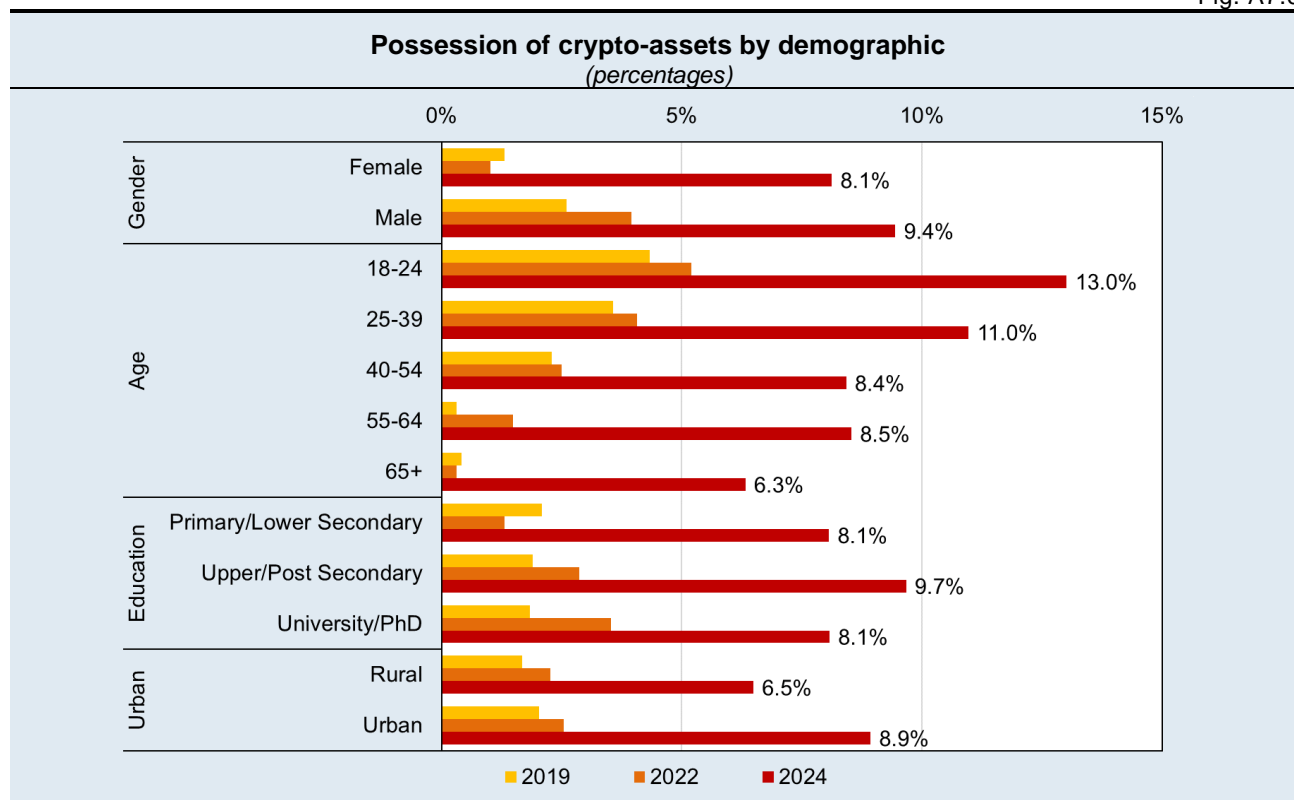
Source: authors' calculations based on ECB SPACE survey data (2024).

Fig. A7.5



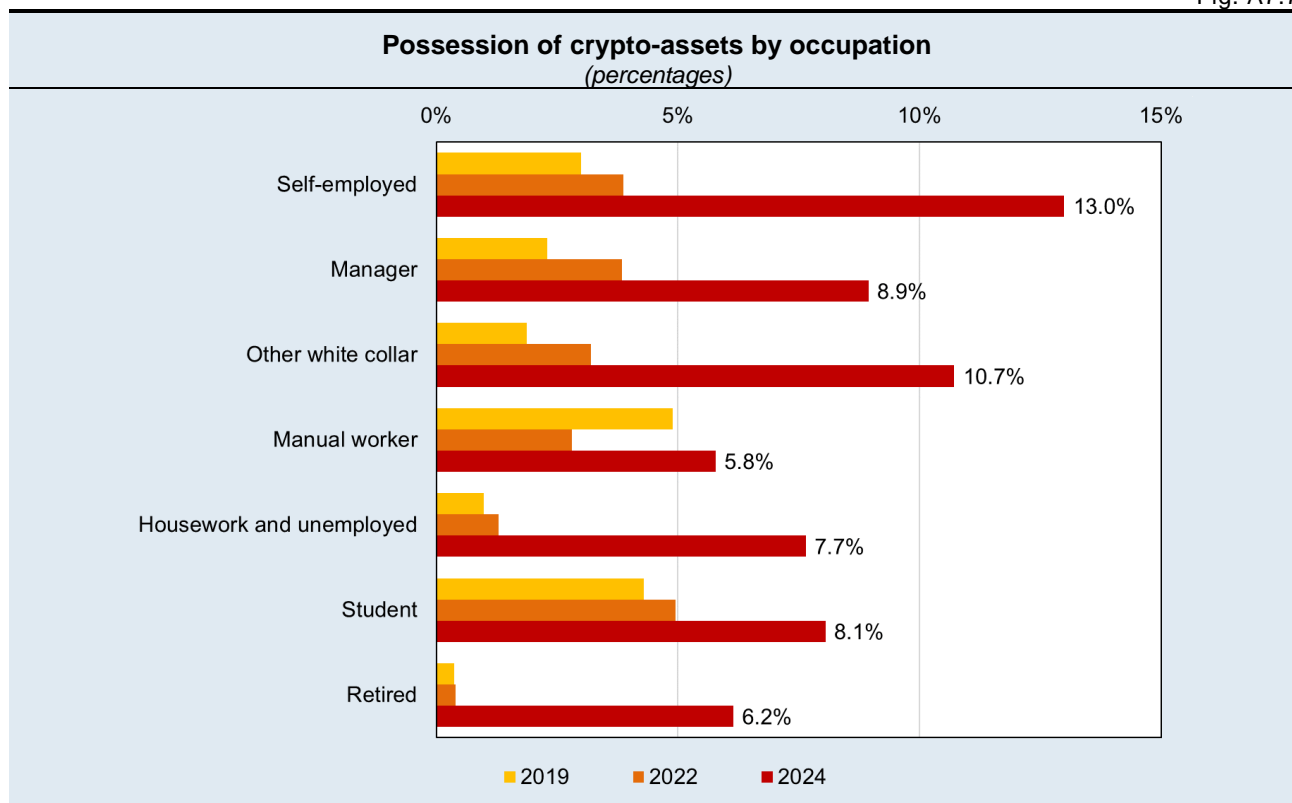
Source: authors' calculations based on ECB SPACE survey data (2019, 2022 and 2024).

Fig. A7.6



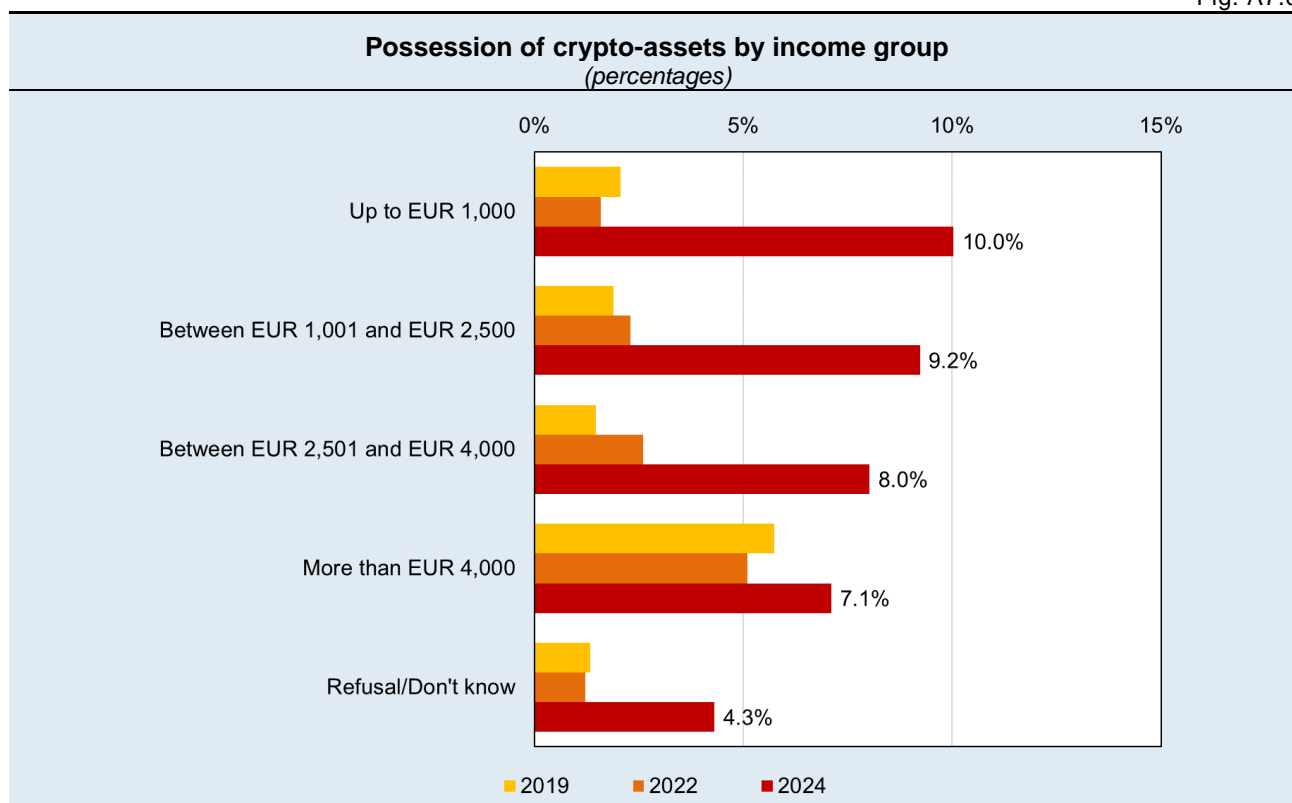
Source: authors' calculations based on ECB SPACE survey data (2019, 2022 and 2024).

Fig. A7.7



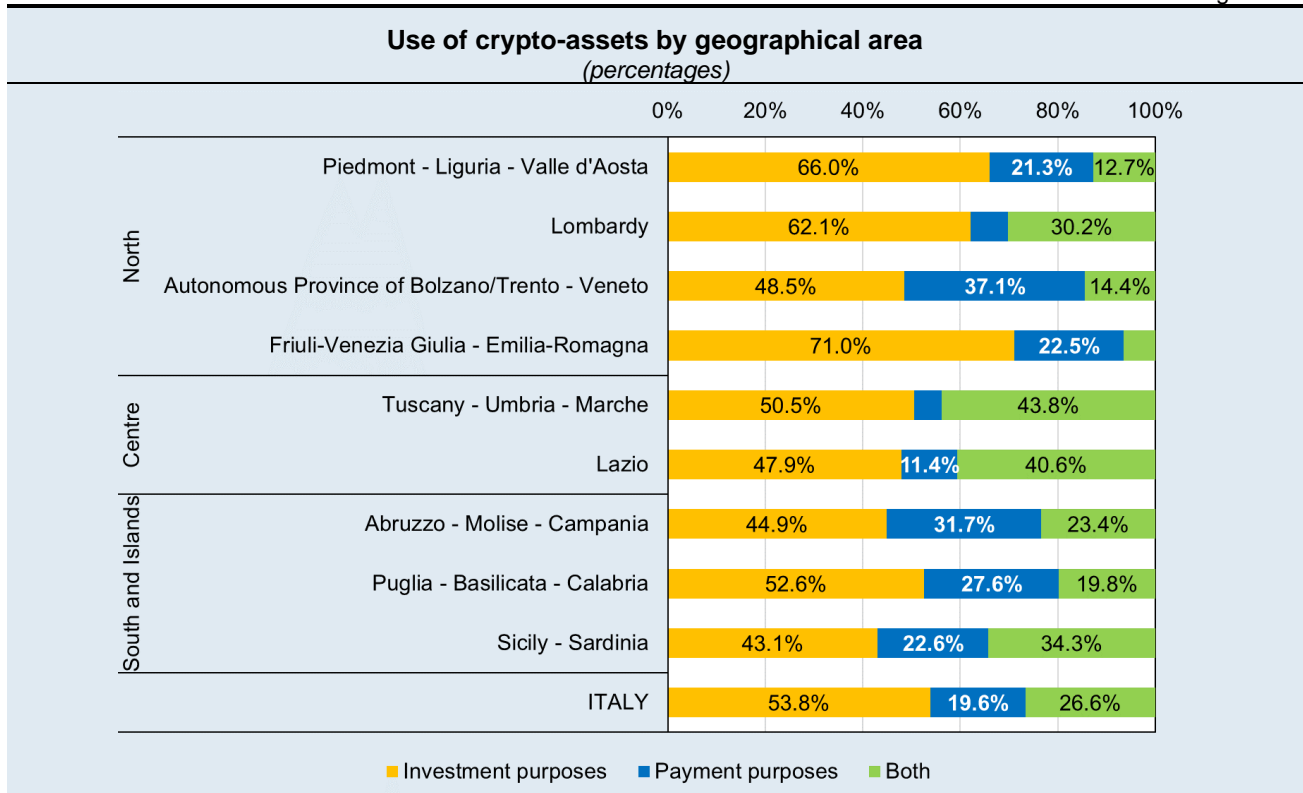
Source: authors' calculations based on ECB SPACE survey data (2019, 2022 and 2024).

Fig. A7.8



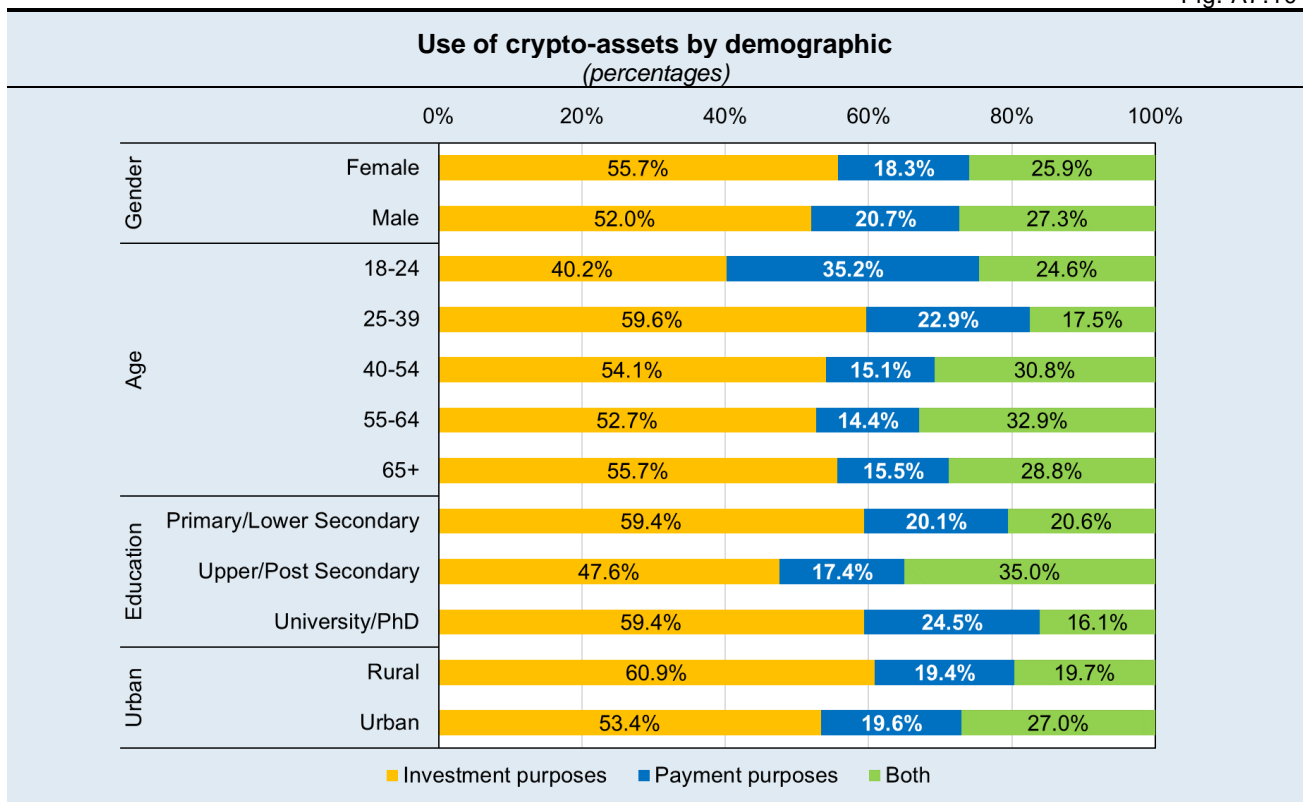
Source: authors' calculations based on ECB SPACE survey data (2019, 2022 and 2024).

Fig. A7.9



Source: authors' calculations based on ECB SPACE survey data (2024).

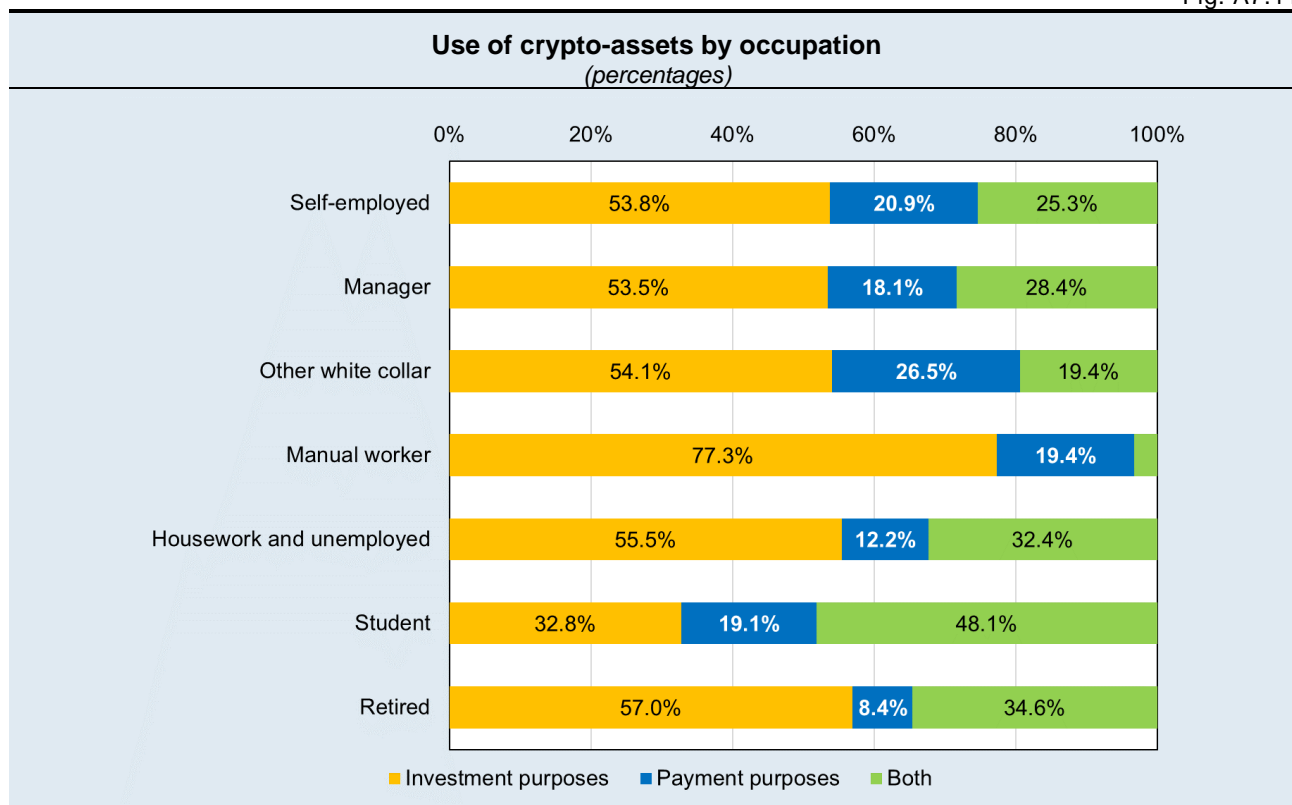
Fig. A7.10



Source: authors' calculations based on ECB SPACE survey data (2024).

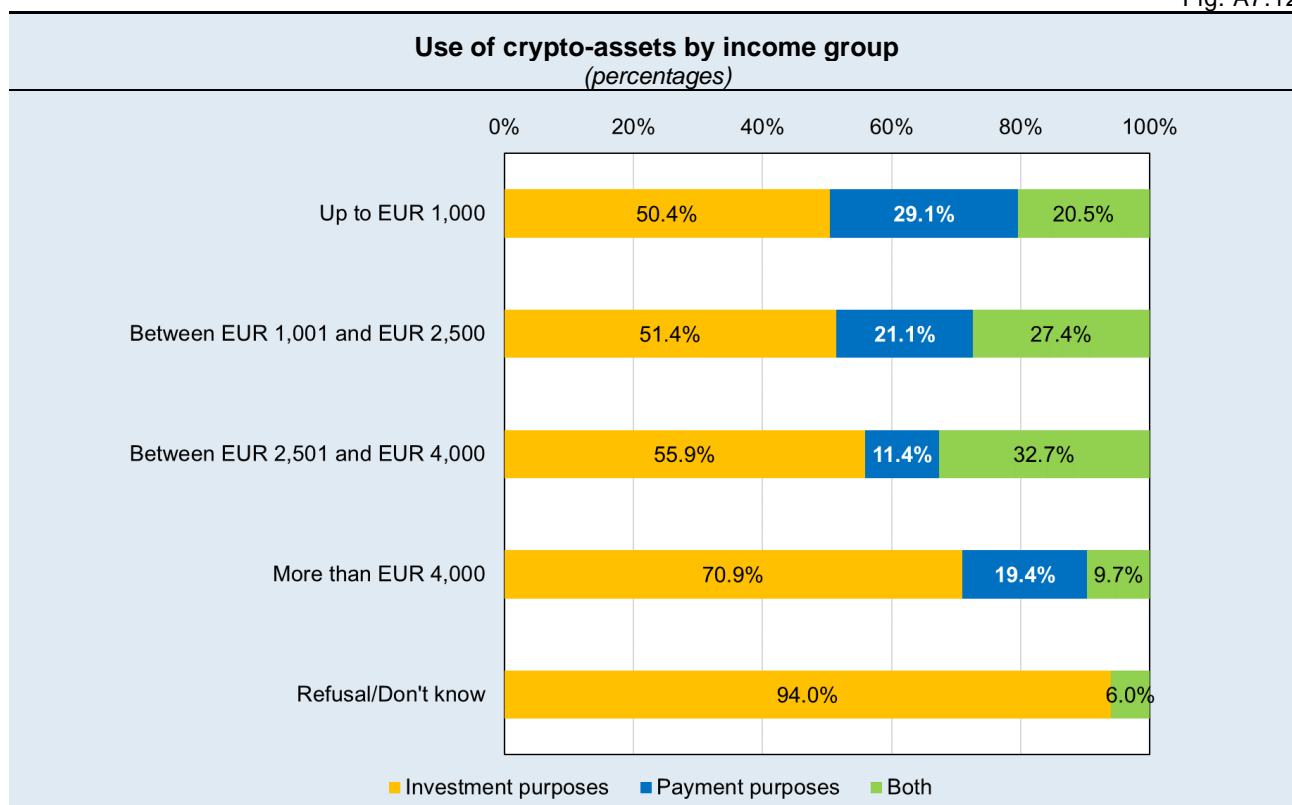
A7. Access to payment instruments in Italy

Fig. A7.11



Source: authors' calculations based on ECB SPACE survey data (2024).

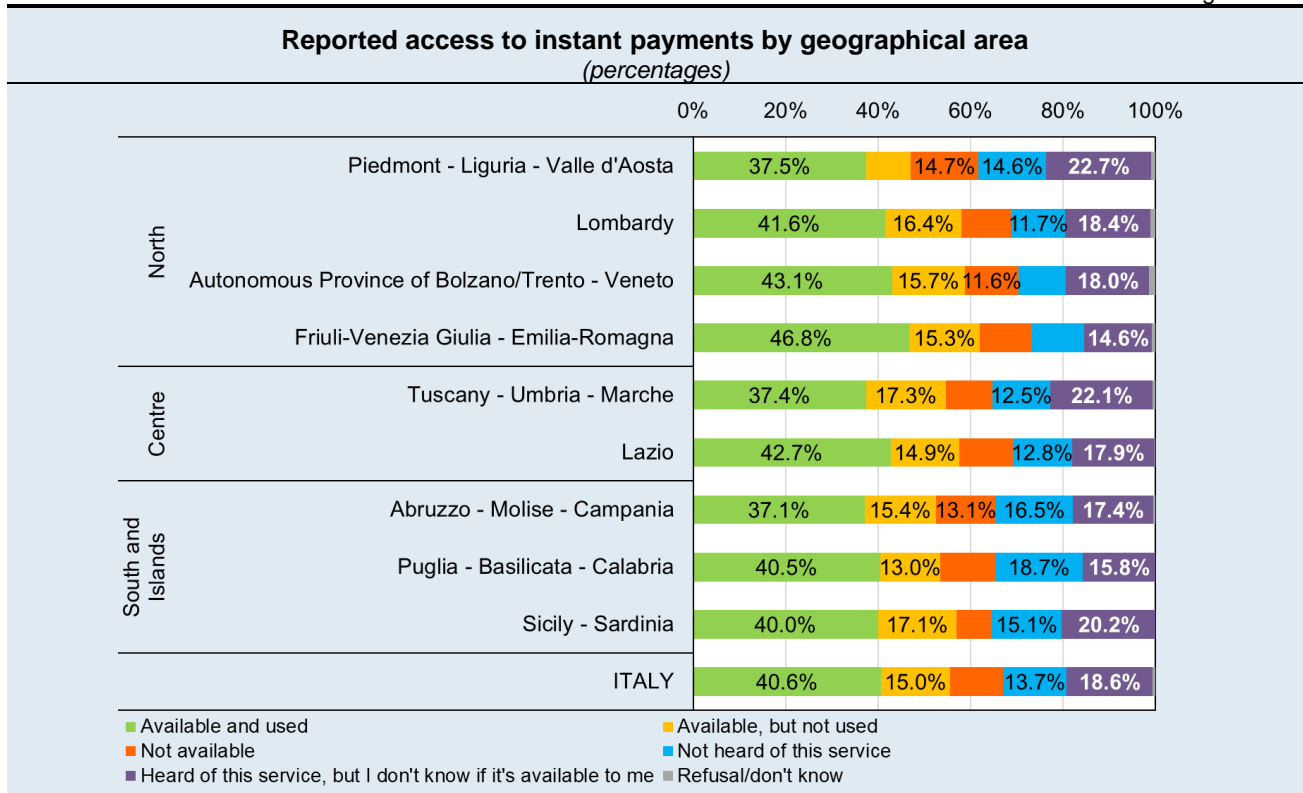
Fig. A7.12



Source: authors' calculations based on ECB SPACE survey data (2024).

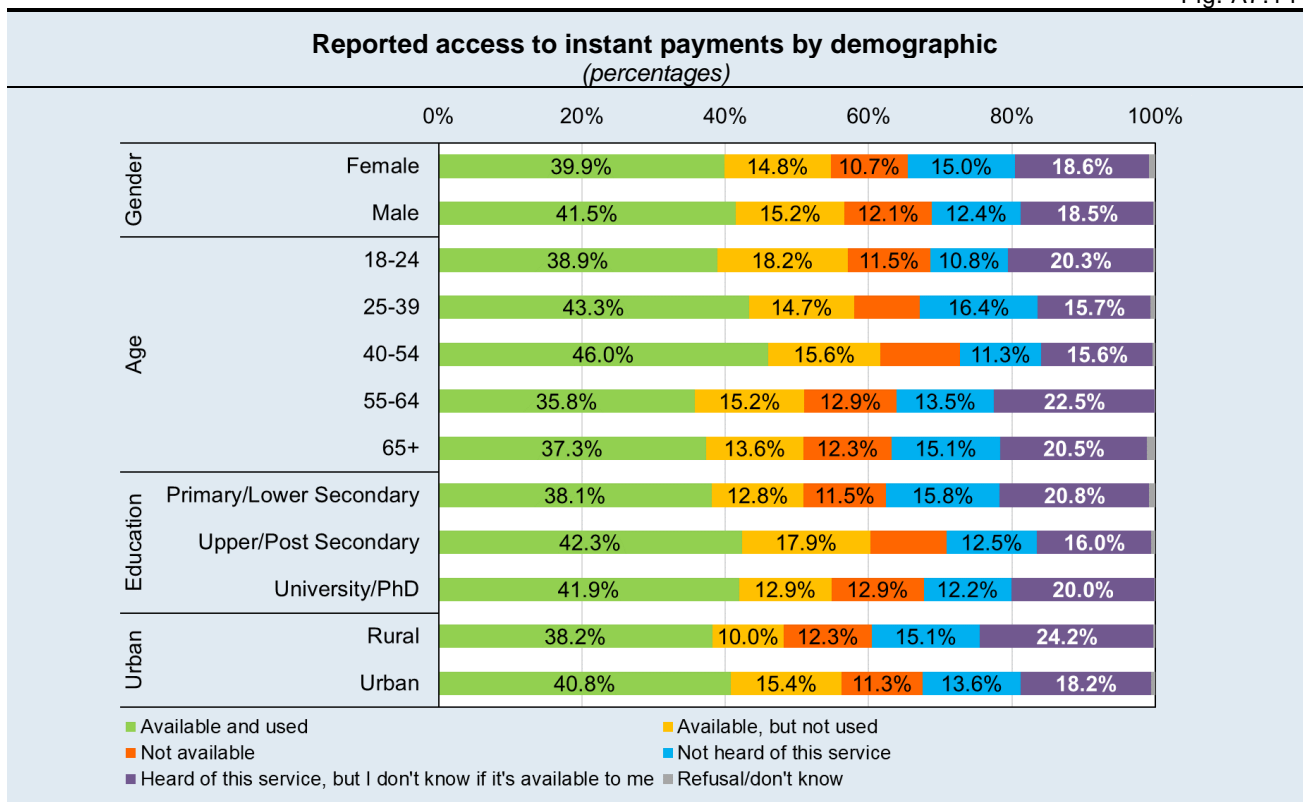
A7. Access to payment instruments in Italy

Fig. A7.13



Source: authors' calculations based on ECB SPACE survey data (2024).

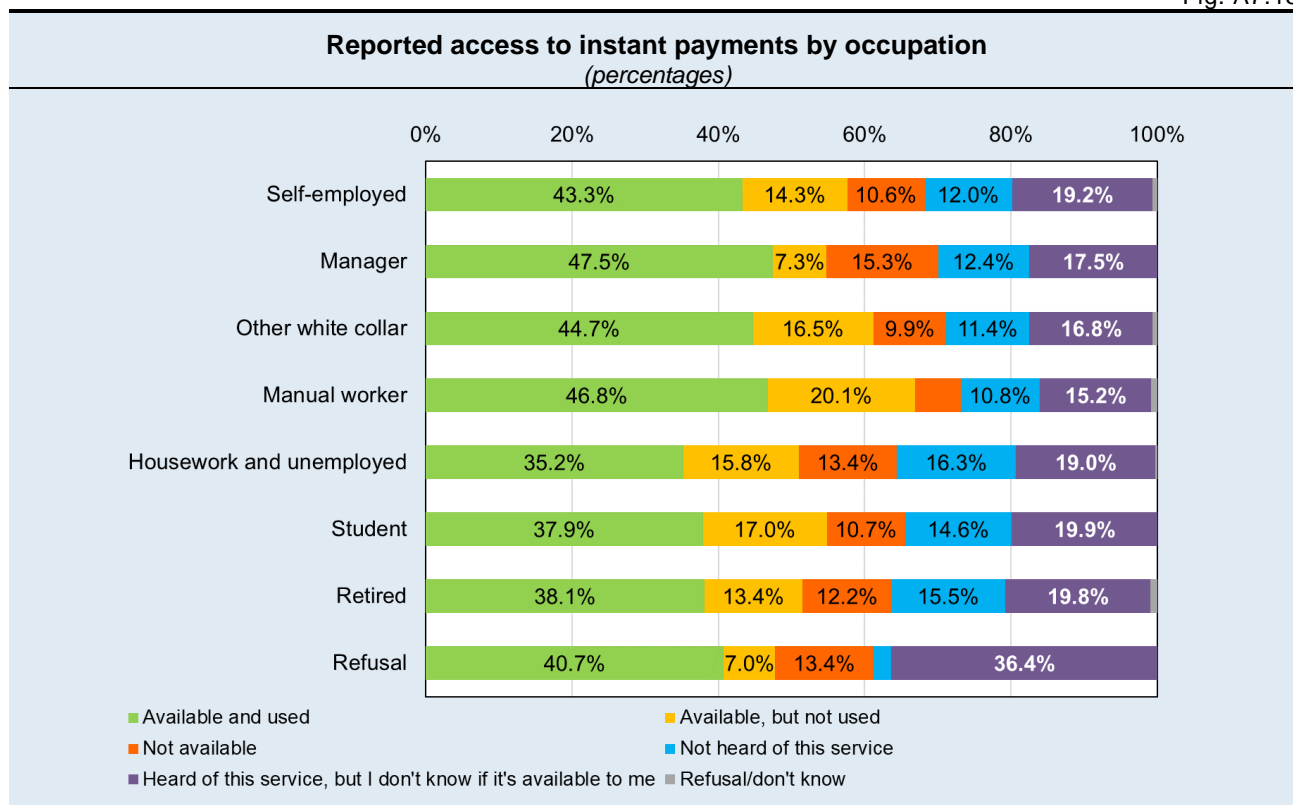
Fig. A7.14



Source: authors' calculations based on ECB SPACE survey data (2024).

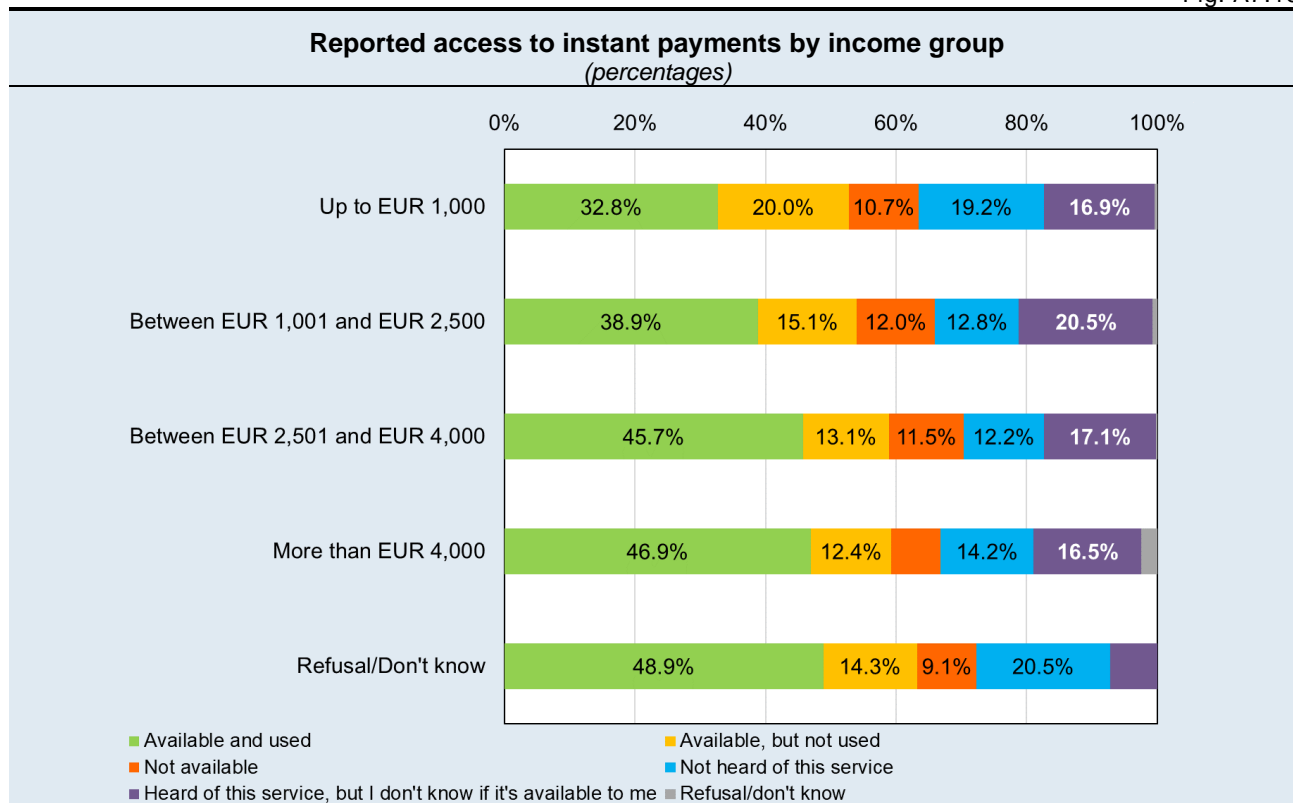
A7. Access to payment instruments in Italy

Fig. A7.15



Source: authors' calculations based on ECB SPACE survey data (2024).

Fig. A7.16



Source: authors' calculations based on ECB SPACE survey data (2024).

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