

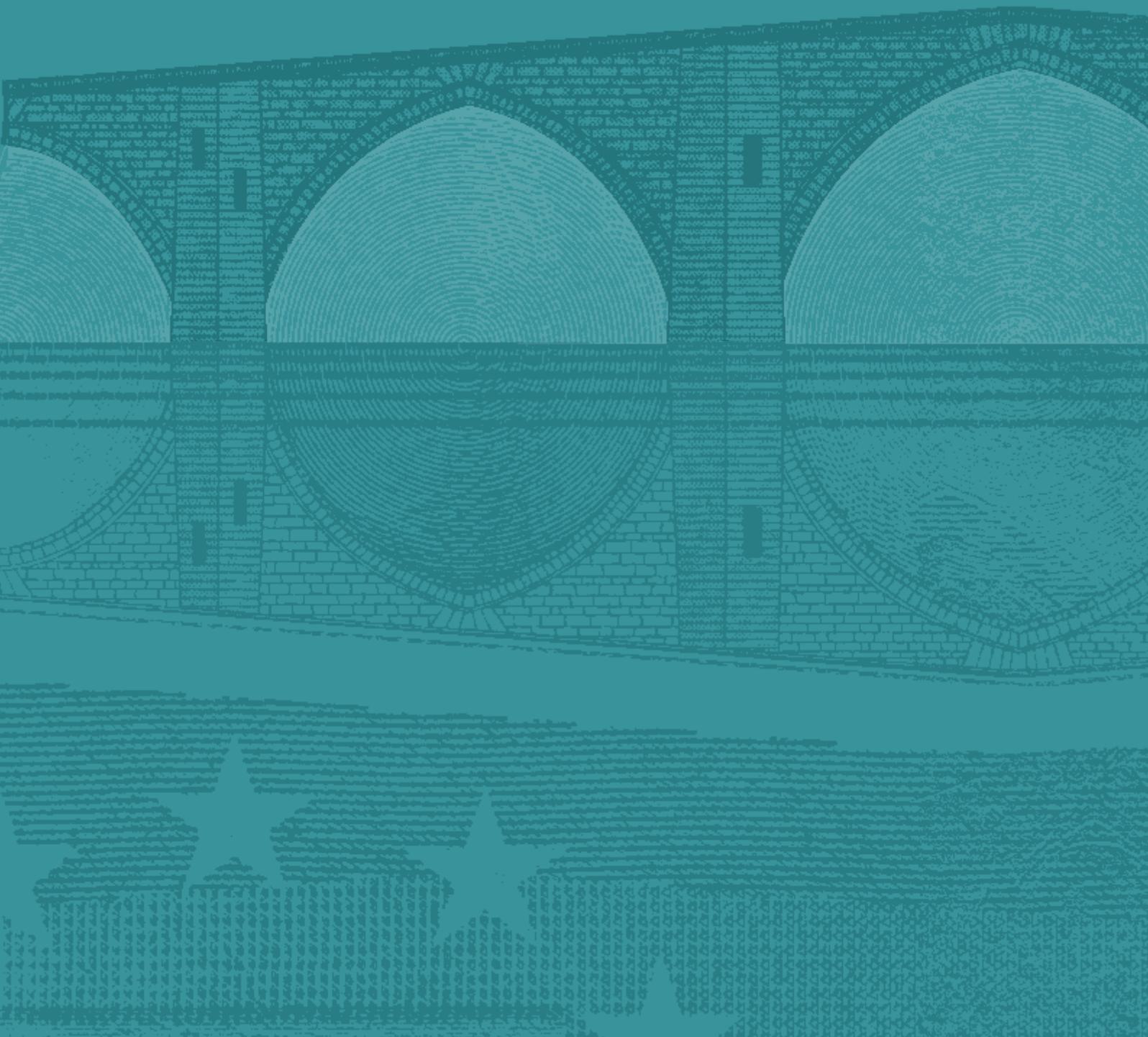


EUROPEAN CENTRAL BANK

EUROSYSTEM

THIRD REPORT ON CARD FRAUD

FEBRUARY 2014





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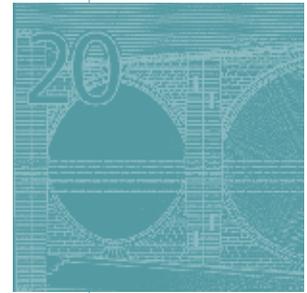
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EXECUTIVE SUMMARY

This third oversight report on card fraud analyses developments in fraud related to card payment schemes (CPSs) in the Single Euro Payments Area (SEPA) and covers almost the entire card market.¹

The total value of fraudulent transactions conducted using cards issued within SEPA and acquired worldwide amounted to €1.33 billion in 2012, which represented an increase of 14.8% from 2011. In relative terms, i.e. as a share of the total value of transactions, fraud rose by 0.002% to 0.038% in 2012, up from 0.036% in 2011. It should be noted that card fraud had reached a five-year low in 2011 and that the level reported in 2012 is still below the levels observed between 2008 and 2010. In 2012 60% of the value of fraud resulted from card-not-present (CNP) payments, i.e. payments via the internet, post or telephone, 23% from transactions at point-of-sale (POS) terminals and 17% from transactions at automated teller machines (ATMs).²

With €794 million in fraud losses in 2012, CNP fraud was not only the largest category in absolute value, but also the one with the highest growth (up 21.2% from 2011). Data on regular, i.e. non-fraudulent, CNP transactions, which are only partially available, suggest that there was also considerable growth in CNP transactions. Card fraud committed at ATMs grew by 3.7% in 2012, while fraud committed at POS terminals increased by 8.9%. The growth in POS fraud was driven mainly by an increase in counterfeit fraud, but also by higher card-not-received and other fraud. In 51% of cases, ATM and POS fraud was committed using counterfeit cards, while in 38% of cases it was committed using lost or stolen cards. As observed in previous years, counterfeit fraud typically occurred in countries located outside SEPA (see below). This trend continued in 2012, contributing to an increase in counterfeit fraud.

For delayed debit and credit cards, CNP fraud was the most common type of fraud, accounting for 69% of the total value, followed by fraud occurring at POS terminals (24%) and ATMs (7%). For debit cards, CNP fraud was also the most common type, accounting for 52%, followed by ATM fraud (30%) and POS fraud (18%).

From a geographical perspective, domestic transactions accounted for 93% of all transactions, but only 50% of fraudulent transactions. Cross-border transactions within SEPA accounted for 5% of all transactions, but 25% of fraudulent transactions. Finally, although only 2% of all transactions were acquired from outside SEPA, they accounted for 25% of all fraud. It is likely that the disproportionately high share of cross-border fraud committed outside SEPA is mainly a result of the preference among fraudsters to exploit low security standards, such as magnetic stripe technology in the case of counterfeit fraud. The euro area experienced slightly lower fraud levels from an issuing and acquiring perspective than SEPA as a whole.

Compared with SEPA as a whole, fraudsters in the euro area focused more on ATM and POS fraud (fraud committed at ATMs and POS terminals accounted for 47% of the total value of fraud in the euro area, compared with 40% in SEPA). The difference can be attributed mainly to the influence of the United Kingdom, which had a relatively high share of CNP fraud and accounted for 36% of total fraud losses on cards issued within SEPA.

¹ This report focuses mainly on data analysis and key messages. General information on card usage and on interpretational aspects provided in the first report on card fraud is not repeated in this version.

² The same trends were observed with respect to fraud volumes, although ATM fraud was less prevalent and POS fraud was more common.

For the first time, unlike in previous years, this report also covers data on transactions conducted using cards issued outside SEPA, but acquired inside SEPA. The additional data show that there are higher fraud losses on non-SEPA-issued cards used inside SEPA (€618 million) than there are on SEPA-issued cards used outside SEPA (€341 million). This also holds in relation to the value of transactions: 0.63% of the value of transactions acquired inside SEPA using non-SEPA issued cards was fraudulent, compared with 0.46% of the value of transactions acquired outside SEPA using cards issued inside SEPA. The finding suggests that European cardholders also benefit from high European security standards for transactions conducted outside SEPA.

For individual European Union (EU) Member States, large variations with respect to card usage were identified, as in the previous report: the number of cards per inhabitant ranged from 0.6 to 3.7,³ the number of payments made per year per inhabitant ranged from 18 to 253, while the corresponding transaction values ranged between almost €1,300 and more than €17,500 per year and inhabitant. Fraud shares, i.e. the fraud-related share of transaction value or volume, ranged from 0.004% in Romania to 0.065% in France in terms of value, and from 0.001% in Lithuania to 0.031% in France in terms of volume. There were also huge differences with respect to the transaction channels used by fraudsters. Broken down by country of card issue, fraud committed at ATMs ranged from 2% to 52% of the total, the share of CNP fraud ranged from 34% to 81%, and the share of POS fraud ranged from 6% to 50%. Broken down by country of acquirer, these variations were even larger; ATM fraud ranged from 1% to 36%, CNP fraud from 30% to 90% and POS fraud from 9% to 68%.

Most of the countries with mature card markets (defined as countries with high volumes and values of card transactions per inhabitant) experienced high fraud rates. CNP fraud was typically the most common type of fraud experienced in these markets. By contrast, countries with limited card usage experience relatively low levels of fraud. Owing to limited use, the potential financial gains are lower and, since EMV migration is almost complete, it is much easier to target non-EMV countries outside SEPA.

In summary, in 2012 the value of fraud on cards issued inside SEPA increased across all transaction channels. This increase was strongest for CNP fraud which accounted for 60% of total fraud losses on cards issued inside SEPA. Furthermore, despite the near completion of migration to the EMV standard within SEPA, fraud at ATMs and POS terminals increased as fraud shifted to countries outside SEPA with lower security standards. While ATM and POS fraud may diminish as further countries outside SEPA migrate to EMV, CNP fraud may grow further unless appropriate mitigation measures are adopted, such as those recommended by the European Forum for the Security of Retail Payments.

3 The 3.7 cards issued per inhabitant relates to Luxembourg, where a portion of cards are issued to cardholders not living in Luxembourg.

INTRODUCTION

In January 2008 the ECB's Governing Council approved an oversight framework for card payment schemes (CPSs). As part of the harmonised implementation of this framework, statistical information is gathered on card schemes. Each scheme is asked to supply general business data and state the number and value of fraudulent and total transactions for each EU Member State, as well as for Switzerland, Iceland, Liechtenstein and Norway (which are also Single Euro Payments Area (SEPA) countries). For automatic teller machines (ATMs) and point-of-sale (POS) terminals, fraud figures are broken down into "lost and stolen", "card not received", "counterfeit" and "other", while for total card-not-present (CNP) transactions, there is an option to provide a breakdown of the figures according to "online" and "mail or phone" fraud. Data collection is based on common templates and definitions. Please note that fraud is defined independently of whether the loss is borne finally by the customer, issuer, acquirer or merchant.

This report summarises the information received from the following 23 CPSs: 4B, American Express, Bancontact/MisterCash, Banque Accord, BNP Paribas Personal Finance, Carrefour Banque, Cartes Bancaires, Cashlink, Cofidis, Cofinoga, COGEBAN/PagoBANCOMAT, Crédit Agricole Consumer Finance, Diners Club International, EURO 6000, Franfinance, girocard, JCB International, LaserCard, MasterCard Europe, Quikcash, ServiRed, SIBS' Multibanco, and Visa Europe.

A comparison of the transaction data with data held in the ECB's Statistical Data Warehouse (SDW) suggests that the data available for 2012 represent 98% of the total value of transactions within the European Union (EU). However, this figure must be treated with caution as it may reflect both gaps in SDW data and double counting in data reported for oversight purposes. Unfortunately, for three countries the coverage is below 80% of the value of transactions owing to the fact that oversight requirements were waived for some CPSs or as a result of incomplete data reporting.

Please note that data from three of the CPSs are only included from 2009 onwards and data from another two CPSs are only included from 2011 onwards. This variation in data coverage renders some comparisons across time invalid. Moreover, an assumption had to be made in order to avoid overlaps between figures reported by international and national CPSs. Two remaining data issues have been identified: firstly, the allocation of cards issued across borders to countries by area of use – a measure for the location of the cardholder – vs. the location of the institution issuing the card, and, secondly, the allocation of CNP transactions acquired across borders according to the location of the acquirer instead of that of the merchant.

The national central banks and the ECB have checked and processed the data with due care. Nevertheless, errors related to data provision, transmission or processing may remain. Therefore, all results presented in this report should be read and interpreted with caution.

Results from an issuing perspective refer to payments made with cards issued within SEPA and acquired worldwide. In contrast to previous years, payments made with cards issued outside SEPA and acquired within SEPA have been included in this report. Results from an acquiring perspective therefore refer to transactions conducted using cards issued worldwide and acquired inside SEPA. Results are generally derived from an issuing perspective,⁴ except in Chapter 6, where the acquiring perspective is adopted for some results. In these cases, the change of perspective is highlighted.

⁴ From an issuing perspective, some CPSs have split their card data according to the area of use of a card, i.e. the main country of use defined by the issuer upon issuance of a card, while other CPSs have reported data according to the country in which the card issuer is domiciled. This may lead to discrepancies for some countries (e.g. Luxembourg) if card issuers issue cards for areas of use other than their own country.

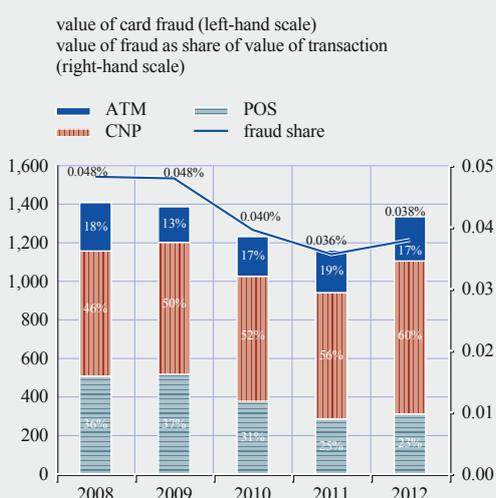
The report is structured as follows: the first chapter presents findings on the total level of card fraud. The second chapter looks at card fraud for different card functions and is followed by a chapter on CNP fraud. Next is an analysis of different categories of card fraud at ATMs and POS terminals. Chapter 5 compares domestic transactions and fraud figures with cross-border figures both within and outside SEPA. Chapter 6, which is based on EU Member States only, looks at absolute and relative fraud levels, as well as other information about individual EU Member States. Finally, Chapter 7 concludes.

I TOTAL LEVEL OF CARD FRAUD

- Chart 1a: the total value of card fraud using cards issued in SEPA amounted to €1.33 billion¹ in 2012.
 - This represented an increase of 14.8% compared with 2011 and a decrease of 9.3% compared with 2008. However, since the value of all card transactions grew by 7.6% in 2012, fraud as a share of the total value of transactions increased by only 0.002%, i.e. from 0.036% in 2011 to 0.038% in 2012.
- Compared with 2011, CNP has become an even more important channel for fraud, whereas ATMs and POS terminals have become less important.
 - CNP accounted for 60%, POS for 23% and ATM for only 17% of the total value of fraud.
- Chart 1b: the total number of cases of card fraud using cards issued in SEPA amounted to 9.1 million in 2012.
 - This represented an increase of 14.8% compared with 2011 and a decrease of 4.9% compared with 2008. In comparison, the total number of transactions increased by 7.5% in 2012. Therefore, fraud as a share of the total number of transactions increased to 0.017% in 2012 (i.e. 0.001%).
- In line with the trends observed for the value of fraud, the relevance of ATMs and POS terminals as channels for fraud has also decreased when looking at fraud volumes.
- The share of ATM fraud in terms of volume was lower than the share in terms of value owing to the high average values for fraudulent ATM transactions.

Chart 1a Evolution of the total value of card fraud using cards issued within SEPA¹⁾

(EUR millions; percentages)

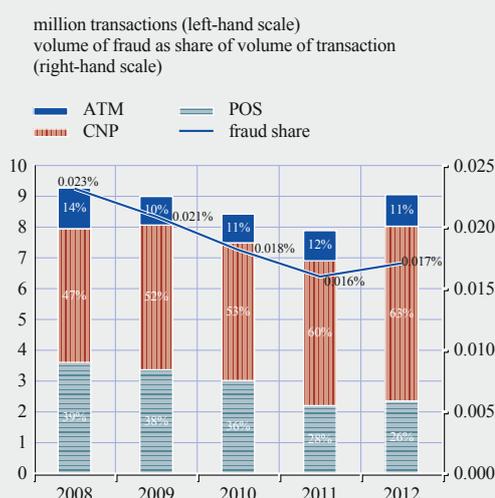


Source: All reporting CPSS.

1) Please note that, as outlined in the introduction, the increases in total levels of fraud in the years 2009 and 2011 were partly due to the inclusion of data from additional CPSSs.

Chart 1b Evolution of the total volume of card fraud using cards issued within SEPA¹⁾

(percentages)



Source: All reporting CPSS.

1) Please note that, as outlined in the introduction, the increases in total levels of fraud in the years 2009 and 2011 were partly due to the inclusion of data from additional CPSSs.

1 The figure of €1.33 billion reflects the losses of all reporting CPSSs, whereas growth rates in this section are calculated on the basis of the data of those CPSSs which have provided data for the two years to be compared. The growth rates are thus not influenced by variations in data provision.

2 CARD FRAUD ACCORDING TO DIFFERENT CARD FUNCTIONS

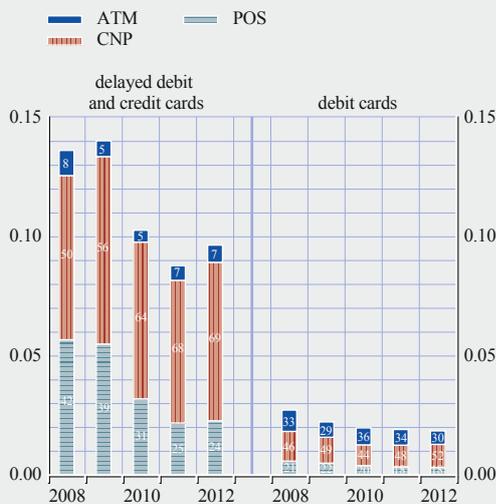
- Chart 2: the total share in overall fraud declined slightly for debit card fraud, but increased for delayed debit and credit card fraud.
- The share of delayed debit and credit card fraud in overall fraud remained at a higher level than that of debit card fraud.
- For delayed debit and credit cards:
 - in absolute terms, fraud grew in all three channels (ATM, POS and CNP) (not displayed);
 - in relative terms, CNP fraud grew, while ATM fraud was stable and POS fraud decreased.
- For debit cards:
 - in absolute terms (not displayed), CNP fraud and, to a lesser degree, POS fraud increased, while ATM fraud decreased;
 - in relative terms, the total share in overall fraud decreased slightly, owing to stronger growth in non-fraudulent transactions than in fraudulent transactions.

3 CARD-NOT-PRESENT FRAUD

- Chart 3: in 2012, the total value of CNP fraud increased by 21% to €794 million.
- CNP fraud accounted for 60% of the total value of card fraud in 2012;
 - this share has been steadily growing since 2008.

Chart 2 Fraud shares and the composition of fraud for different card functions¹⁾

(value of fraud as share of value of transaction; percentages)

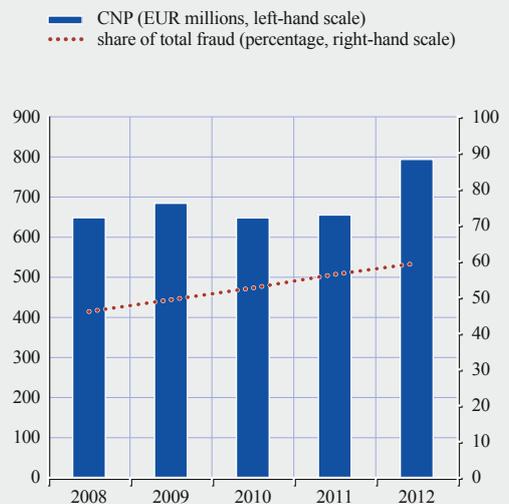


Source: All reporting CPSs excluding cards issued in France and Spain.

1) Please note that, as outlined in the introduction, the increases in total levels of fraud in the years 2009 and 2011 were partly due to the inclusion of data from additional CPSs.

Chart 3 Evolution of the value of CNP fraud and its share of the total value of fraud¹⁾

(EUR millions; percentages)



Source: All reporting CPSs.

1) Please note that, as outlined in the introduction, the increases in total levels of fraud in the years 2009 and 2011 were partly due to the inclusion of data from additional CPSs.

Box 1

EFFORTS TO TACKLE CNP FRAUD AND NEW CHALLENGES

Unlike ATM and POS fraud, which declined in absolute terms over the full period from 2008 to 2012, CNP fraud remained at roughly similar levels between 2008 and 2011 and experienced a significant increase in 2012. Looking at CNP fraud at the country level reveals that several countries¹ managed to substantially reduce CNP fraud between 2008 and 2011, thereby offsetting increases in other countries. In 2012 this ceased to be the case, as most countries that had previously been successful in reducing fraud themselves suffered higher CNP fraud losses. This dual growth in CNP fraud gave rise to the high increase from 2011 to 2012. While data on CNP transactions are only partially available and no firm conclusions can be drawn, the figures that are available suggest that CNP payments may have grown by 15% to 20% each year between 2008 and 2012, compared with average growth of 4% for all transactions.

While growth in transactions helped to prevent fraud shares from rising, the increase in CNP fraud once again confirms that there is a strong case for the swift adoption of more effective security measures to protect CNP transactions.

CNP transactions have traditionally been protected using a three-digit security code found on the back of the card. As these codes were printed on the card, they offered only limited security and some issuers introduced additional static passwords similar to a PIN. Reliance on static passwords, however, allowed fraudsters to abuse them once they managed to get hold of them. In order to further increase security, the European Forum for the Security of Retail Payments (SecuRe Pay) recommended,² among other things, the use of strong customer authentication entailing two independent authentication factors, of which one would not be static.³ For example, transactions could be authorised using a static password plus a random code generated by a token or chip card reader.

New risks to the security of payments, including but not limited to CNP payments, arise through the use of mobile devices and technologies for payments.

- The current generation of mobile devices and their operating systems were generally not designed with the security of payments in mind.
- The use of radio technology for the transmission of sensitive payment data and personal data exposes mobile payments to risks that other payments do not face.
- Compared with traditional payments, mobile payments involve new actors, including mobile network operators.

1 The United Kingdom, Czech Republic, Germany, Greece and Sweden managed to reduce CNP fraud notably for some years between 2008 and 2012. Over the full period, the United Kingdom, Greece and Sweden were the only countries that had lower absolute losses resulting from CNP fraud in 2012 than in 2008.

2 The full recommendations for the security of internet payments can be found on the ECB's website:

<http://www.ecb.europa.eu/pub/pdf/other/recommendationssecurityinternetpaymentsoutcomeofpcfinalversionafterpc201301en.pdf>

3 According to the SecuRe Pay recommendations, at least one of the elements should be non-reusable and non-replicable (except for inherence), and not capable of being surreptitiously stolen via the internet.



- The general public may be less aware of information security risks when using mobile devices than when making internet payments from desktop PCs or laptops at home.

For these reasons – and notwithstanding the fact that mobile payments are still at an early stage of development and deployment – the SecuRe Pay Forum is developing recommendations for the security of mobile payments.⁴ This work is also aimed at facilitating the development of a harmonised European approach to solutions that have the potential to develop more easily than traditional payments, including across national borders.

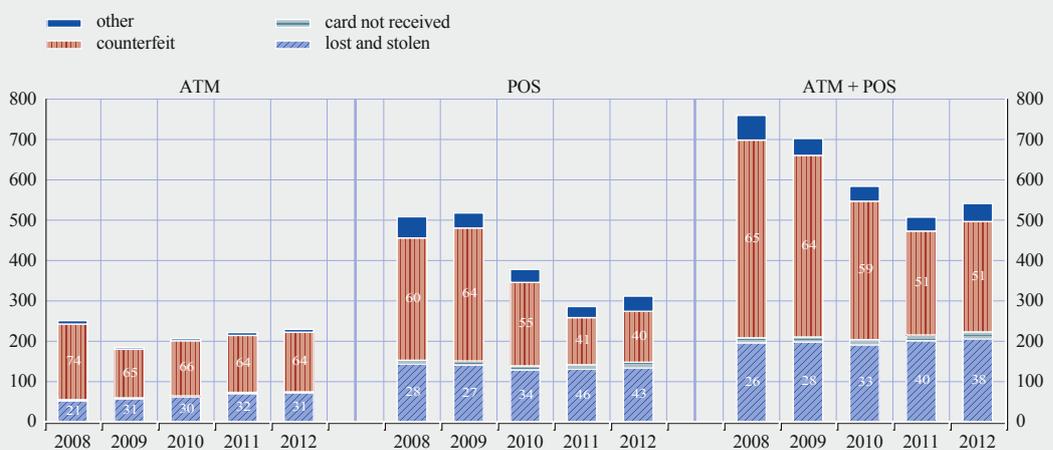
4 A draft version of the recommendations can be found on the ECB's website:
<http://www.ecb.europa.eu/paym/cons/pdf/131120/recommendationsforthesecurityofmobilepaymentsdraftpc201311en.pdf>

4 FRAUD CATEGORIES AT ATMS AND POS TERMINALS

- Chart 4: the combined value of ATM and POS fraud increased by 6.6% in 2012.
 - The values of both ATM and POS fraud also increased individually.
- At ATMs, the increase in 2012 was less pronounced and driven by higher losses owing to fraud using counterfeit or lost and stolen cards.
- At POS terminals, an 8% increase in counterfeit losses in 2012 made the largest contribution to the overall increase. Card-not-received and other fraud both increased by 35%, but from a much lower absolute level.
- Fraud using counterfeit cards continued to be the most common type of ATM fraud, followed by fraud using lost and stolen cards. At POS terminals, lost and stolen cards was the most relevant category followed by counterfeit fraud.

Chart 4 Evolution of the value of fraud by category at ATMs and POS terminals¹⁾

(EUR millions; percentages)

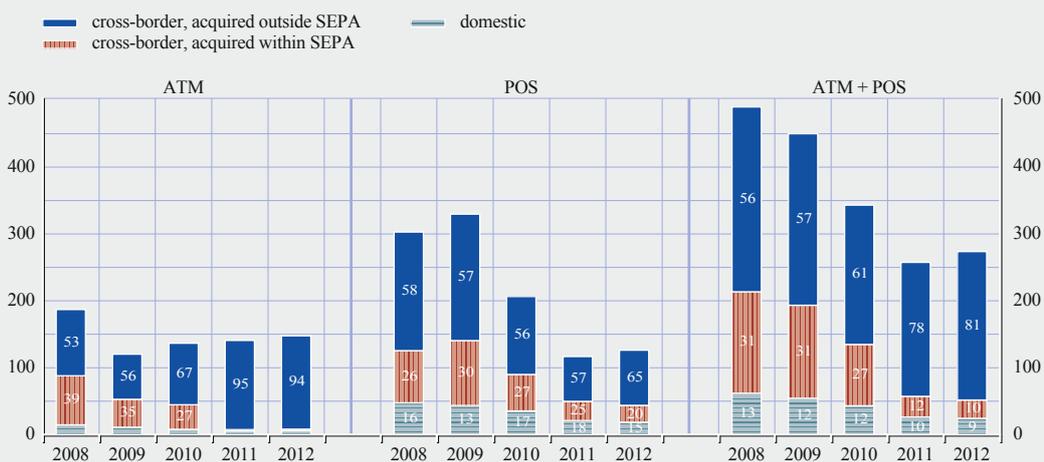


Source: All reporting CPSs.

1) Please note that, as outlined in the introduction, the increases in total levels of fraud in the years 2009 and 2011 were partly due to the inclusion of data from additional CPSs.

Chart 5 Evolution of the value of counterfeit fraud at ATMs and POS terminals¹⁾

(EUR millions; percentages)

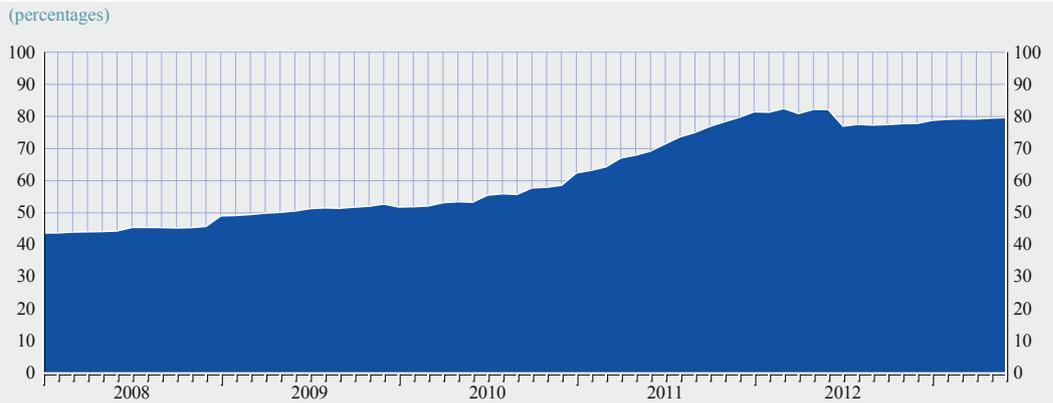


Source: All reporting CPSs.

1) Please note that, as outlined in the introduction, the increases in total levels of fraud in the years 2009 and 2011 were partly due to the inclusion of data from additional CPSs.

- Since 2008 the absolute value of counterfeit fraud at ATMs and POS terminals combined decreased by 44%, while lost and stolen fraud increased by 5% and card-not-received fraud increased by 41% (although from a comparatively low level).
 - Lower counterfeit losses therefore account for almost all of the reduction in fraud experienced since 2008.
- Chart 5: as was observed in previous years, in 2012 counterfeit fraud increasingly involved transactions acquired outside SEPA.
 - 94% of ATM counterfeit fraud and 65% of POS counterfeit fraud concerned transactions acquired outside SEPA.
 - Cross-border fraud within SEPA and domestic fraud fell further from the levels observed in 2011, probably as a result of the high EMV security standard within SEPA.
- The total value of counterfeit fraud increased by 6.3% in 2012.
 - The increase in counterfeit fraud was exclusively caused by fraudulent transactions acquired outside SEPA.
 - Counterfeit fraud involving transactions acquired inside SEPA decreased by 10%.
- Chart 6: for transactions carried out at POS terminals in the euro area irrespective of the country in which the card was issued, EMV transactions as a percentage of POS transactions increased steadily from about 44% in 2008 to 80% in 2012.
- Since end-2011, the share of EMV transactions at POS terminals has levelled out at around 80%.
- Please note that the figures relate only to the euro area.

Chart 6 EMV transactions¹⁾ in the euro area as a percentage of total transactions at POS terminals



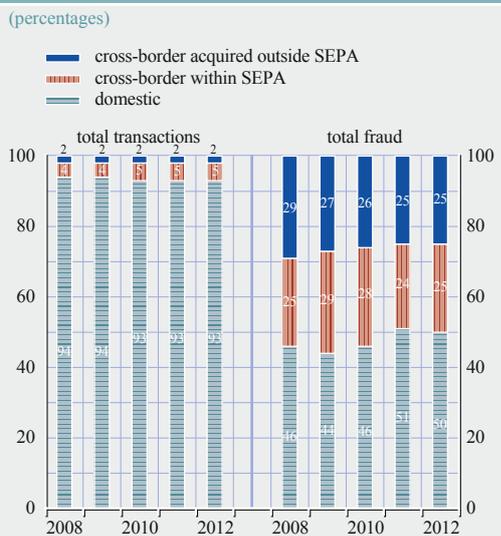
Source: ECB, SEPA migration indicators.

1) An “EMV transaction” is understood to be a card payment transaction in which the following criteria are satisfied: an EMV-compliant card is used at an EMV-compliant terminal and EMV technology is used in the processing of the transaction.

5 DOMESTIC AND CROSS-BORDER FRAUD

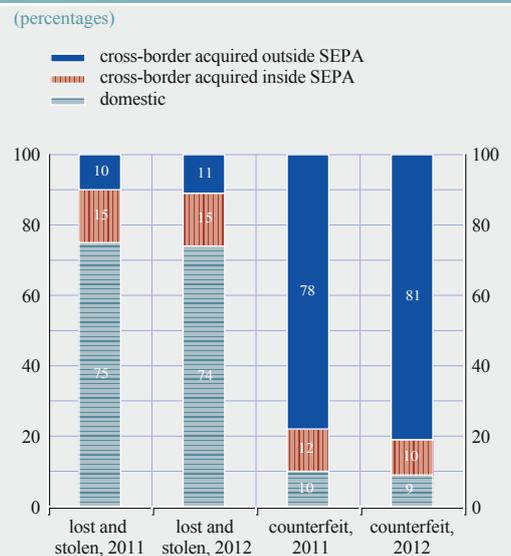
- Chart 7: the geographical composition of the value of all transactions remained stable in 2012.
 - Domestic transactions accounted for 93% of all transactions, followed by cross-border transactions within SEPA (5%) and cross-border transactions acquired outside SEPA (2%).
- Domestic transactions also accounted for the largest share of fraudulent transactions in 2012 (50%), followed by cross-border fraud within and outside SEPA (both 25%).
 - The share of cross-border fraud within SEPA increased slightly at the benefit of domestic fraud.

Chart 7 Evolution of the value of domestic and cross-border transactions and fraud



Source: All reporting CPSs.

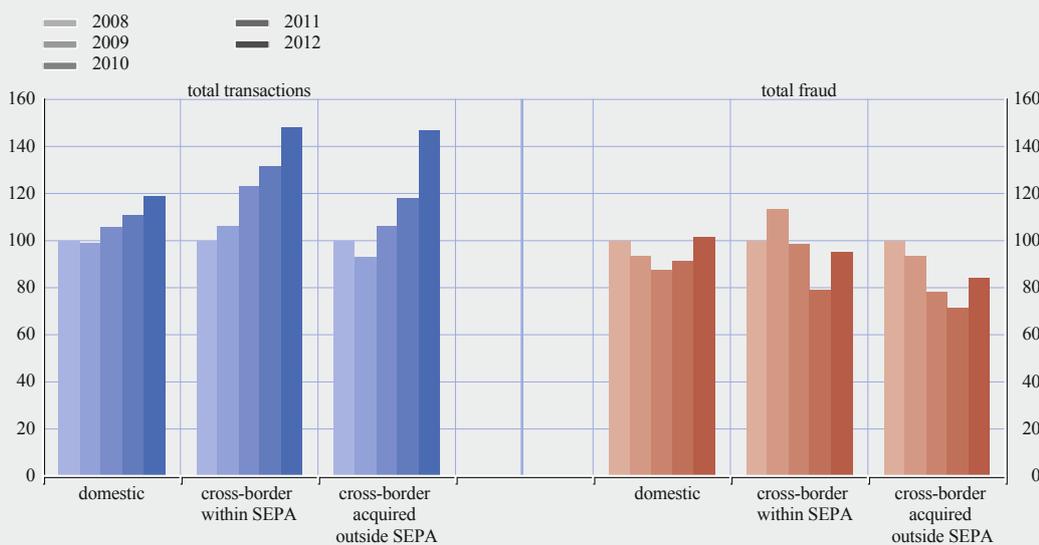
Chart 8 Geographical composition of lost and stolen fraud and counterfeit fraud at ATMs and POS terminals according to fraud value



Source: All CPSs, 2011 and 2012.

Chart 9 Evolution of the total value of domestic and cross-border transactions and fraud¹⁾

(2008=100)



Source: All reporting CPSs.

1) Please note that, as outlined in the introduction, the increases in total levels of fraud in the years 2009 and 2011 were partly due to the inclusion of data from additional CPSs.

- Chart 8: the geographical composition of fraud largely depends on the type of fraud:
 - lost and stolen fraud typically takes place at the domestic level;
 - counterfeit fraud is typically committed outside SEPA;
 - for counterfeit fraud, the trend towards fraud being committed outside SEPA continued in 2012.
- Chart 9: in all three geographical categories, both transactions and fraud grew in 2012.
- The number of domestic and cross-border transactions within SEPA that were fraudulent rose faster than that of those that were not fraudulent, whereas the number of fraudulent transactions acquired outside SEPA using cards issued within the area rose more slowly than the corresponding number of transactions.
- Cross-border fraud within SEPA and cross-border fraud outside SEPA remained below their 2008 levels, whereas domestic fraud was slightly above its 2008 level.

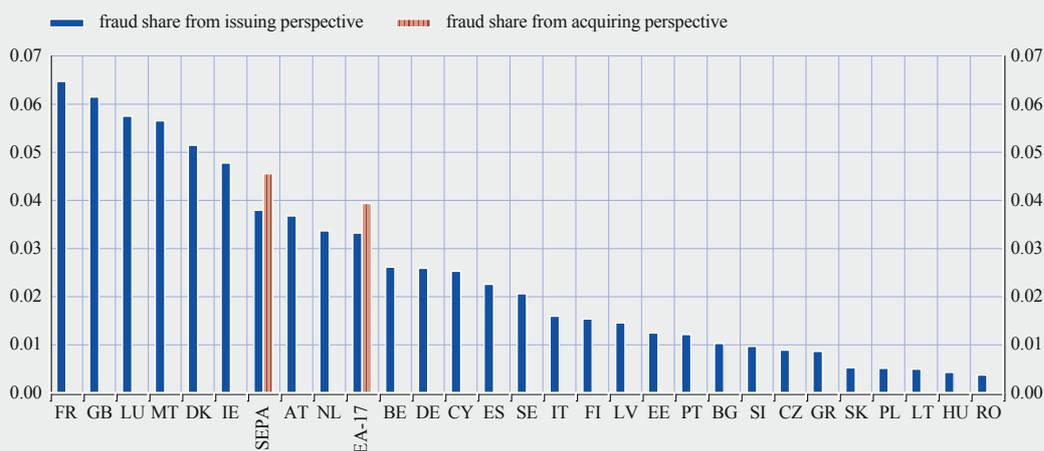
6 A COUNTRY PERSPECTIVE ON CARD FRAUD²

- Chart 10: fraud shares varied substantially between different EU Member States in 2012.
 - From an issuing perspective, the rates of fraud in France and the United Kingdom were the highest and more than ten times as high as those in Romania, Hungary, Lithuania or Poland, which had the lowest rates.

2 From an issuing perspective, some CPSs have split their card data according to the area of use of a card, i.e. the main country of use defined by the issuer upon issuance of a card, while other CPSs have reported data according to the country in which the card issuer is domiciled. This may lead to discrepancies for some countries (e.g. Luxembourg) if card issuers issue cards for areas of use other than their own country.

Chart 10 Value of fraud as a percentage of the total value of transactions for cards issued in a specific country or area (blue) and as a percentage of the total value of payments acquired within this area (reddish brown)

(percentage; value of fraud as share of value of transactions)



Source: All CPSs, 2012.

- The euro area experienced lower fraud rates than SEPA as a whole (both from an issuing and an acquiring perspective).
- Fraud rates for SEPA (and the euro area) were lower from an issuing perspective than from an acquiring perspective. This indicates that cards issued inside SEPA experienced lower fraud rates for transactions acquired outside SEPA than did cards issued outside SEPA for transactions acquired inside SEPA.
- Table 1: in general, smaller countries had much higher shares of all, i.e. fraudulent and non-fraudulent, cross-border transactions than larger countries.
- Chart 11: CNP was the main channel for committing fraud using cards issued in all but three countries.
- Main fraud channel by country of issue:
 - CNP fraud: AT, BE, BG, CY, CZ, DE, DK, FI, FR, GB, GR, HU, IE, IT, LT, LU, LV, MT, PL, PT, RO, SE, SI, SK
 - POS fraud: ES
 - ATM fraud: EE, NL

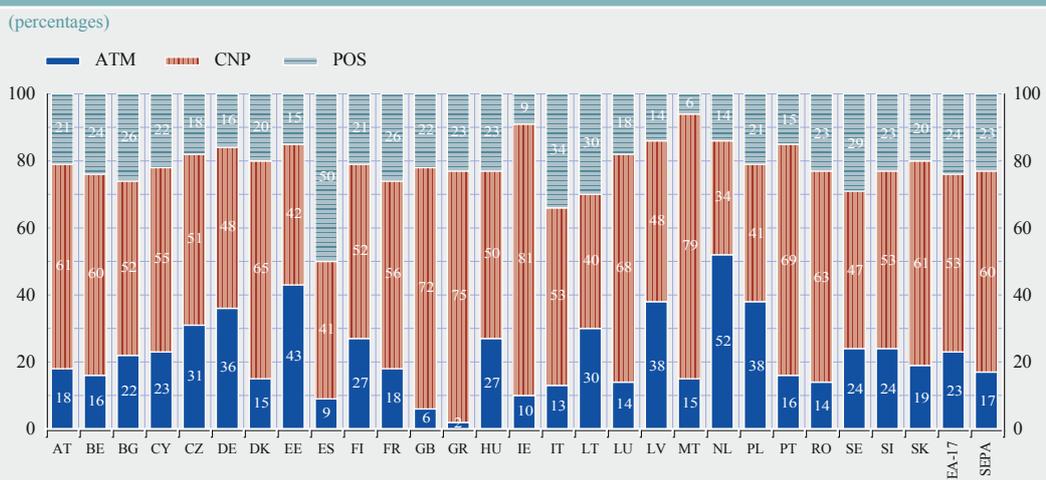
Table 1 Percentage of value of all transactions taking place domestically or cross-border from an issuing perspective

Country	PT	PL	GR	HU	IT	ES	FR	CZ	RO	FI	DE	LT	GB	SK
Domestic	97	97	97	96	96	95	95	95	94	93	93	93	93	92
Cross-border	3	3	3	4	4	5	5	5	6	7	7	7	7	8

Country	BG	SE	EE	SI	NL	IE	BE	DK	LV	MT	AT	CY	LU
Domestic	92	91	90	90	90	89	87	87	81	80	79	69	61
Cross-border	8	9	10	10	10	11	13	13	19	20	21	31	39

Source: All CPSs, 2012.

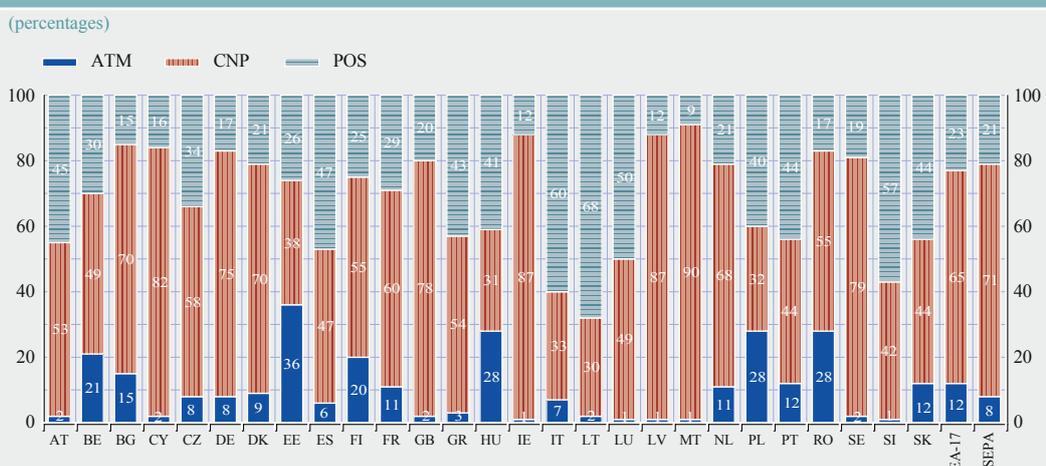
Chart 11 Geographical distribution of the value of card fraud by transaction channel from an issuing perspective



Source: All CPSs, 2012.

- There was a large variation in the fraudulent use of each channel for cards issued in different EU Member States:
 - ATM fraud accounted for between 2% and 52%, with a median share of 19%;
 - CNP fraud accounted for between 34% and 81%, with a median share of 53%;
 - POS fraud accounted for between 6% and 50%, with a median share of 21%.
- Chart 12: there was a large variation in the transaction channel used to commit fraud in different EU Member States:
 - ATM fraud accounted for between 1% and 36%, with a median share of 8%;
 - CNP fraud accounted for between 30% and 90%, with a median share of 55%;
 - POS fraud accounted for between 9% and 68%, with a median share of 29%.

Chart 12 Geographical distribution of the value of fraud using cards issued worldwide by transaction channel from an acquiring perspective



Source: All CPSs, 2012.

Table 2 Card, transaction and fraud levels from an issuing perspective

Country	cards / inhabitant	transactions / card		transactions / inhabitant	
		value	volume	value	volume
FR	1.3	6762	123	8507	155
GB	2.4	5733	89	13743	213
LU ¹⁾	3.7	4844	52	17807	190
MT	1.9	3003	35	5644	66
DK	1.5	6407	151	9485	224
IE	1.3	7495	88	9870	116
AT	1.3	2721	44	3620	58
NL	1.8	5026	102	9155	185
BE	1.9	5818	80	10866	149
DE	1.6	4123	40	6703	65
CY	1.5	4440	45	6534	67
ES	1.5	3080	48	4590	72
SE	2.2	5611	113	12578	253
IT	1.1	3922	36	4390	40
FI	1.5	6825	167	9913	243
LV	1.2	3265	75	3822	88
EE	1.3	3867	142	5160	189
PT	1.9	4151	82	7972	157
BG	1.1	1129	17	1277	19
SI	1.6	3127	57	5008	91
CZ	1.0	3591	48	3474	47
GR	1.2	3552	19	4205	23
SK	1.0	3632	47	3697	48
PL	0.9	2928	60	2515	51
LT	1.2	2647	55	3218	66
HU	0.9	2777	43	2494	39
RO	0.6	2174	28	1398	18
EA-17	1.4	4558	65	6527	93
SEPA	1.5	4646	70	6806	103

Sources: Data on cards, inhabitants, transactions per card and transactions per inhabitant were drawn from the ECB's SDW; data on fraud and fraud per transaction were collected for oversight purposes by all CPSs for 2012.

Note: Values are in euro.

1) The 3.7 cards issued per inhabitant for Luxembourg, along with their associated transaction and fraud figures, include cards that are issued to cardholders not living in Luxembourg.

- Variations in the fraudulent use of each channel were more pronounced from an acquiring perspective than from an issuing perspective.
- Table 2: there were large variations in card use and fraud levels across EU Member States.
- Most of the mature card markets, which are characterised by high transaction values per inhabitant (for example, France and the United Kingdom) experienced high fraud rates. Fraud in these markets was predominantly CNP fraud (see Chart 11).
- In countries where card use was rather low, e.g. Romania, Hungary, or Lithuania fraud shares were typically also low. In these markets fraud at POS terminals was more common than in SEPA as a whole.
- Countries are listed according to fraud as a share of the total value of transactions.

Table 2 Card, transaction and fraud levels from an issuing perspective (cont'd)

Country	fraud / transaction		fraud / 1000 cards		fraud / 1000 inhabitants	
	value	volume	value	volume	value	volume
FR	0.065%	0.031%	4115	36.9	5177	46.4
GB	0.061%	0.024%	3131	19.8	7506	47.4
LU ¹⁾	0.058%	0.022%	2068	9.3	7602	34.1
MT	0.057%	0.023%	1457	7.0	2738	13.2
DK	0.051%	0.013%	3262	18.0	4830	26.7
IE	0.048%	0.018%	3718	16.9	4896	22.2
AT	0.037%	0.014%	1640	7.6	2182	10.0
NL	0.034%	0.008%	1696	8.0	3090	14.6
BE	0.026%	0.009%	1155	6.1	2158	11.5
DE	0.026%	0.013%	1072	5.0	1743	8.2
CY	0.025%	0.016%	1128	7.0	1660	10.3
ES	0.023%	0.020%	702	9.7	1046	14.4
SE	0.021%	0.006%	1039	6.5	2330	14.6
IT	0.016%	0.008%	802	3.8	898	4.2
FI	0.015%	0.003%	1059	5.5	1538	8.0
LV	0.015%	0.004%	471	2.9	551	3.4
EE	0.012%	0.002%	488	3.0	651	4.0
PT	0.012%	0.003%	521	2.7	1002	5.1
BG	0.010%	0.005%	111	0.9	126	1.0
SI	0.010%	0.004%	236	1.7	378	2.8
CZ	0.009%	0.005%	315	2.3	304	2.2
GR	0.009%	0.011%	306	2.1	362	2.5
SK	0.005%	0.003%	155	1.3	158	1.3
PL	0.005%	0.002%	150	1.0	128	0.9
LT	0.005%	0.001%	136	0.8	165	1.0
HU	0.004%	0.002%	133	1.0	119	0.9
RO	0.004%	0.003%	82	0.8	53	0.5
EA-17	0.033%	0.017%	1537	11.2	2201	16.1
SEPA	0.038%	0.017%	1808	12.3	2580	17.5

- The cell colour helps with the interpretation of the associated values:
 - green is associated with high card usage and low levels of fraud;
 - red is associated with low card usage and high levels of fraud;
 - darker colours indicate more extreme values;
 - each column in Table 2 is formatted independently.

Table 3 Relative fraud levels and trends per channel and category from an issuing perspective

issuing country / region	value of fraud as share of value of transactions	change of share from year before	ATM			
			value of lost+stolen fraud as share of all transactions	change of share from year before	value of counterfeit fraud as share of all transactions	change of share from year before
FR	0.00065	9%	0.000069	1%	0.000048	17%
GB	0.00061	12%	0.000008	5%	0.000024	39%
LU	0.00058	-5%	0.000015	28%	0.000066	15%
MT	0.00057	7%	0.000009	-52%	0.000064	7%
DK	0.00051	35%	0.000008	-29%	0.000066	47%
IE	0.00048	-8%	0.000006	-16%	0.000034	-27%
AT	0.00037	4%	0.000002	-18%	0.000063	49%
NL	0.00034	-3%	0.000020	19%	0.000149	-22%
BE	0.00026	14%	0.000023	-24%	0.000017	7%
DE	0.00026	3%	0.000024	-15%	0.000067	3%
CY	0.00025	-30%	0.000004	-1%	0.000052	-22%
ES	0.00023	11%	0.000009	-6%	0.000010	-9%
SE	0.00021	11%	0.000011	2%	0.000038	3%
IT	0.00016	-24%	0.000010	-3%	0.000011	-63%
FI	0.00015	11%	0.000013	13%	0.000028	28%
LV	0.00015	4%	0.000000	-71%	0.000054	-16%
EE	0.00012	-10%	0.000001	-7%	0.000051	-3%
PT	0.00012	43%	0.000004	11%	0.000014	29%
BG	0.00010	25%	0.000002	-4%	0.000020	-18%
SI	0.00010	-26%	0.000002	-6%	0.000021	-50%
CZ	0.00009	-39%	0.000002	-31%	0.000025	-5%
GR	0.00009	-53%	0.000000	-62%	0.000001	-59%
SK	0.00005	19%	0.000001	-9%	0.000009	16%
PL	0.00005	28%	0.000002	-33%	0.000017	67%
LT	0.00005	5%	0.000000	NA	0.000014	-29%
HU	0.00004	-1%	0.000003	-41%	0.000008	100%
RO	0.00004	2%	0.000000	-40%	0.000005	-40%
EA-17	0.00033	2%	0.000028	-5%	0.000046	-8%
SEPA	0.00038	6%	0.000020	-5%	0.000042	-3%

Source: All reporting CPSs, 2011 and 2012.

- Table 3 reports fraud levels and changes in fraud levels in 2012 at a country level in total and for selected types of fraud.
 - Developments in and levels of fraud differed substantially across different countries;
 - Although issuers and card schemes managed to reduce fraud in some countries with relatively high fraud rates, such as Luxembourg and Malta, they experienced further growth in other markets, such as the United Kingdom and Denmark;
 - Similarly, among countries with low fraud shares, some experienced a further reduction in fraud, such as Greece and the Czech Republic, while others experienced major growth, such as Portugal and Poland.
- The cell colour helps with the interpretation of the associated values:
 - green is associated with low fraud shares and reductions in fraud shares;
 - red is associated with high fraud shares and increases in fraud shares;
 - darker colours indicate more extreme values.
- Fraud shares and growth rates for individual fraud categories are jointly formatted in Table 3 to allow the comparison of different types of fraud.

Table 3 Relative fraud levels and trends per channel and category from an issuing perspective (cont'd)

issuing country / region	POS				CNP	
	value of lost+stolen fraud as share of all transactions	change of share from year before	value of counterfeit fraud as share of all transactions	change of share from year before	value of CNP fraud as share of all transactions	change of share from year before
FR	0.000113	-1%	0.000048	12%	0.000359	14%
GB	0.000054	3%	0.000038	42%	0.000439	8%
LU	0.000006	-36%	0.000093	-14%	0.000392	-6%
MT	0.000007	-38%	0.000026	-45%	0.000447	21%
DK	0.000017	4%	0.000084	56%	0.000335	33%
IE	0.000009	25%	0.000034	42%	0.000389	-2%
AT	0.000027	32%	0.000045	19%	0.000225	-7%
NL	0.000013	-67%	0.000028	50%	0.000115	60%
BE	0.000012	33%	0.000046	-1%	0.000157	28%
DE	0.000012	6%	0.000028	-6%	0.000124	11%
CY	0.000012	37%	0.000039	-67%	0.000138	-10%
ES	0.000033	-6%	0.000048	-4%	0.000093	33%
SE	0.000017	-2%	0.000037	23%	0.000097	18%
IT	0.000017	-30%	0.000031	-51%	0.000085	9%
FI	0.000005	-3%	0.000025	-32%	0.000079	33%
LV	0.000001	-82%	0.000019	5%	0.000070	42%
EE	0.000002	-31%	0.000014	-34%	0.000052	-11%
PT	0.000009	-26%	0.000008	-16%	0.000084	87%
BG	0.000001	-65%	0.000017	31%	0.000054	51%
SI	0.000002	-69%	0.000019	-48%	0.000051	32%
CZ	0.000002	-74%	0.000014	-35%	0.000045	-49%
GR	0.000007	-53%	0.000009	-83%	0.000065	-42%
SK	0.000001	-47%	0.000009	-20%	0.000032	60%
PL	0.000002	-15%	0.000008	-12%	0.000021	46%
LT	0.000000	-46%	0.000005	-31%	0.000020	43%
HU	0.000001	-36%	0.000008	-30%	0.000022	30%
RO	0.000001	10%	0.000007	-42%	0.000024	64%
EA-17	0.000039	-9%	0.000035	-10%	0.000175	13%
SEPA	0.000038	-5%	0.000036	0%	0.000226	12%

CONCLUSIONS

This third report on card fraud found that the total value of fraud increased for all transaction channels (ATM, POS and CNP) in 2012. CNP fraud grew fastest (up by 21%), accounting for 60% of all fraud losses on cards issued inside SEPA. Data on total CNP transactions, which are, unfortunately, only partially available, suggest that growth in CNP fraud is mainly driven by the growing use of CNP transactions. As further growth in CNP transactions can be expected, there is a strong case for a swift adoption of more effective security measures to protect CNP transactions.

The higher ATM and POS fraud was mainly a result of higher counterfeit fraud committed outside SEPA. This trend is largely due to lower levels of security in many countries outside SEPA. The situation should improve as more countries migrate to the EMV security standard. However, where magnetic stripe usage in such countries cannot be completely avoided, card schemes and issuers may wish to adopt further measures to prevent fraud.

As in previous years, this report found that levels of fraud were lower in the euro area than in SEPA as a whole. Data on fraud and transactions using cards issued outside SEPA were available for the first time in 2012. They show that fraud losses incurred outside SEPA on cards issued inside SEPA

were lower than losses incurred inside SEPA on cards issued outside SEPA. The finding suggests that SEPA residents benefit from the high security standards of their cards, even though only a small proportion of ATMs and POS terminals outside SEPA make use of the enhanced security features.

