
# PAYSYS REPORT

Issue 08-09 - December 2016

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# UK card fraud increases

(mk) Financial Fraud Action UK (FFA UK) has published fraud data for the first half of 2016. These figures show that card fraud has been rising steeply. Compared with the first half of 2015, fraud is up 31 per cent. In absolute terms, fraud losses amounted to £ 321.5 million.

The fraud rate (fraud divided by card spending) rose to 0.087% or 8.7p for every £100 of spending. The corresponding value for the first half of 2015 was 0.079 per cent. In e-commerce, fraud increased even stronger, climbing to £ 156 million (+45%). The fraud rate rose from 0.163% to 0.211%.

| | 2012 Jan - Jun | 2013 Jan - Jun | 2014 Jan - Jun | 2015 Jan - Jun | 2016 Jan - Jun |
|---|---|---|---|---|---|
| Total loss value m GBP | 185 | 216.1 | 247.6 | 244.6 | 321.5 |
| Increase | | 16.80% | 14.60% | -1.20% | 31.40% |
| Fraud rate | | | | 0.08% | 0.09% |
| e-commerce | | | | | |
| Total loss value m GBP | 65.6 | 77.6 | 105.4 | 107.3 | 156 |
| Increase | | 18.29% | 35.82% | 1.80% | 45.39% |
| Fraud rate | | | | 0.16% | 0.21% |

Table 1 Recent changes in UK card fraud
Source: Financial Fraud Action (UK) and own calculations

# Our Comment:

The publication of the new UK card fraud data comes at a crucial point in time. The European Banking Authority (EBA) has to formulate so-called Regulatory Technical Standards (RTS) covering the application of strong customer authentication (SCA) and exemptions.

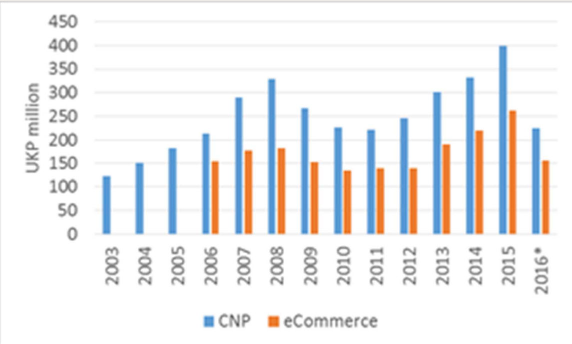


Figure 1 UK CNP Fraud in Per Cent of CNP Card Spent
*: 2016: figures for the first six months
Source: Financial Fraud Action (UK),
UK Cards Association and APACS.

In the October issue of this newsletter we pointed out that there is no market failure (incentives are right) and that there also is no security problem. As a consequence, we did not see a justification for strong regulatory action. Just as we published our article, the FFA UK came up with its new figures which imply a huge increase in fraud during the first six months of 2016. Thus, one may wonder whether drastic action is required, after all. We would argue, however, that regulators should not be overly influenced by short-term developments in fraud. Year on year changes in fraud (absolute figures and in per cent of card spent) are notoriously volatile. A look at the long-term trend shows that there is no need for alarmist action.

Indeed, in the long run, there is a strong downward trend in fraud rates and even the recent rise does not seem to reverse this trend. Unfortunately, due to the lack of data the same exercise cannot be performed for CNP fraud rates.

But a look at the long-term evolution also shows that there have been repeated spikes upward. Such increases in fraud have always been met by improvements in security that have subsequently reduced fraud rates. Thus, there is no need to fear that fraud is spiralling out of control.

**Regulators should not be overly influenced by short-term developments in fraud**

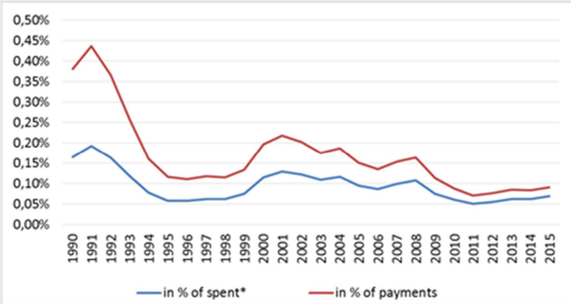


Figure 2 UK card fraud rates
*: incl. ATM cash withdrawals;
Source: Financial Fraud Action (UK),
UK Cards Association, APACS, ECB SDW and BIS.

To be sure, card fraud rates are higher in e-commerce than at the physical POS. But even in e-commerce there seem to be waves of ups and downs rather than a worrying long-term trend upwards.

Finally, when evaluating the recent UK data one also has to take into account that UK fraud rates have been relatively high compared to many other European countries. According to ECB estimates, in 2013, the UK card fraud rate (in per cent of the value of transactions) was almost twice the EU average.[1]

# India:
# De-Monetisation or Demon-Etisation?

(hg) In an overnight operation between 8 and 9 November 2016, the Indian government (prime minster Modi) declared all banknotes with a value of 500 and 1,000 Rupees (INR) to be invalid. These relatively low-value banknotes (1,000 Rupees = 13.50 €) with a total value of approx. 209 billion USD represented about 85% of the total INR cash volume.

This unexpected currency reform, initiated by the government supposedly to fight corruption, counterfeit money, tax evasion and money laundering, plunged the strongly cash-based Indian economy into chaos. In the following days long queues formed at the relatively low number of ATMs (220,000) and at the counters of the banks. Each person was allowed to exchange only a maximum of 2,000 old Rupees into the new banknotes of 500 and 2,000 Rupees. Up until then, the 1,000 INR-note was the highest denomination. Remaining cash had to be deposited into bank accounts. Cash holders with high cash stocks had to explain the origin of these funds.

After a week, about 50% of the invalid bank notes were deposited in bank accounts, partly effected by tricky redistribution of the banknotes between the holders: Persons with low cash stocks offered account-pay-in-services for persons with high stocks, employers paid their employees in advance with non-valid cash notes to get rid of cash etc.

**Unbanked people were probably the victims most hit by the attacks of the government on the presumed tax-evasion and money laundering activities of the wealthy Upper Ten.**

## Our Comment:

To retire about 85% of all cash in an overnight cloak-and-dagger operation in a strongly cash-based economy with 1.3 billion actors seems to be a hara-kiri act of the Indian government and the Reserve Bank of India as symbiotic partner. Until now, citizens have taken it relatively calmly by supporting the aims of the rigid cash substitution. Nicolás Maduro, president of Venezuela, imitated the Indian coup a few weeks later in the middle of December, by retiring the 100 Bolivar banknote, which represents approx. 80% of the cash volume in Venezuela. Maduro claimed that his decree was a measure against the "international mafia". In contrast to the Indians, the population of Venezuela was less obedient and disciplined. There were riots and looting, which forced Maduro to reverse the decision. Both in India and in Venezuela, the question is whether the objectives stated by the governments are the true objectives.

In India about 250 million Indians (20% of the population) have no bank account. These unbanked people, living in rural areas, were probably the victims most hit by the attacks of the government on the presumed tax-evasion and money laundering activities of the wealthy Upper Ten. Experts say that only a small part of the affected bank notes could represent black money. Black money is usually invested in real estate or transferred to accounts outside of India.

Regarding the recent discussion in the Euro-zone when the ECB ceased printing the 500-€-banknote, the question arises, whether banknotes with a low value of 6.75 and 13.50 Euro respectively are an efficient instrument to launder money or evade taxes, even in a country where the average GDP per capita is about 1,650 USD. It could hit the illegal stocks of banknotes in the possession of Indian criminals, but it will not prevent cash-based corruption, money laundering etc. especially since a new banknote with a 100% higher value (2,000 rupees) has been introduced at the same time.

In accordance with the overarching political goals of creating a "digital India" and a "cashless society", proclaimed before the monetary crackdown, the forced replacement of cash by account-based money is probably the true agenda behind the demonetisation. Even though cash still dominates, card business is rocketing. In 2012 the number of cards per inhabitant was 0.27; it doubled in 2015 to 0.58. Most of the 750 million issued cards are debit cards (88%). However, card acceptance is not so widespread. 1.4 m POS terminals are installed at retailers, a relatively low number given the huge population of 1.3 billion inhabitants. The POS penetration, for example, in cash-minded Germany is more than tenfold larger. However, the average card expenditure per capita in percentage of its GDP income is 3% compared to 8% in Germany. See table 2.

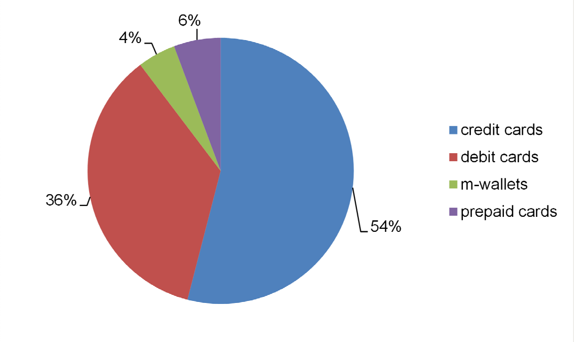


Figure 3 Cashless Payments at POS in India
(excl. checks) Total volume: 4,455.5 b. INR
Source: Reserve Bank of India

### Jan Dhan accounts and RuPay cards

The main reason behind this rapid rise in card business is the huge financial inclusion program, initiated by prime minister Modi in August 2014. Each Indian household shall have a basic current account (so called "Jan-Dhan" (People´s Money) account) accessed by the domestic debit card scheme RuPay or by mobile. Meanwhile more than 200 million RuPay cards are linked to Jan Dhan accounts. Most of these accounts and cards are issued by public sector banks. The RuPay scheme is governed by the National Payments Corporation of India (NPCI). NPCI is an umbrella institution of all retail payment systems in India and provides a centralized infrastructure.

| 2015 | India | Germany |
|---|---|---|
| GDP per capita in USD | 1,650 | 41,169 |
| inhabitans per sq. Km | 380.8 | 226.5 |
| inhabitants per ATM | 6,050 | 951 |
| inhabitants per POS | 926 | 82 |
| cards per inhabitant | 0.58 | 1.70 |
| card POS payments per inh. (USD) | 52 | 3,302 |
| card payments/GDP per capita | 3.1% | 8.0% |

Table 2: Card payment market India – Germany
Sources: RBI Reserve Bank of India & ECB

### Aadhaar Identity Scheme

The second pillar of the cashless society program (meanwhile politically renamed as 'less-cash' society) is the national identification program Aadhaar based on a 12-digit identity number (besides the traditional passport) for each Indian resident, linked to biometric information (fingerprint and iris scan) and demographic data, all stored in a centralised database. The program, launched in 2012 but finally legalized in March 2016, already comprises more than 1 billion Aadhaar identity numbers. Several public services are mandatorily linked to Aadhaar identity, e.g. direct benefit transfers and ration cards. To receive state welfare scheme payments, an Aadhaar enabled bank account is required. To an increasing extent non-public services like SIM cards and bank accounts are also linked to Aadhaar.

De jure, enrollment is voluntary, de facto, however, for Indian residents it is necessary for "digital survival". In cooperation with the Central Bank (RBI) and the National Payments Corporation (NPCI) the public Aadhaar Authority created the AEPS (Aadhaar Enabled Payment System), a mobile-based scheme with direct access to the Aadhaar linked bank accounts (over 250 m accounts). To foster financial inclusion, it is especially targeted at the marginalized segments of society. Acceptance at retailers is realized by small devices with a scanner for fingerprint authorization (so called "mini ATM"). In addition the Aadhaar identification number has to be entered (2 factor authorization). The bank of the payer transfers the amount from its account (linked to the Aadhaar) to the account of the merchant.

### Mobile payments

At the same time the NPCI promotes a nationwide mobile-based money transfer system, directly connected to bank accounts as the third pillar for a cashless India. The scheme can be accessed only by smartphones (through an UPI – unified payment interface) but also by pre-smart models (feature or dumbphones), where the payer first has to dial a dedicated pre-number (99#). Mobile phones are well spread in India (over 1 b mobiles), however smart phones are still used much less (350 m). Because of their lower security, payments with feature phones (so called USSD-payments) are limited to 5,000 Rupees (approx. 75 USD).

**The cash demonetisation act seems to be an intended shock-therapy to migrate India from a cash-based economy into a less-cash society.**

By directly connecting the bank accounts, the scheme bypasses the mobile initiatives based on wallets and payments with the international branded cards (MasterCard and Visa). Banks see this disruption with mixed feelings regarding the lower revenues from the traditional debit and credit card business. Another issue is the uneven role of issuers (predominantly public sector banks) and acquirers (mainly private banks), which generates conflicting interests.

Since the demonetisation, the Modi administration and the NPCI have been pushing the government´s JAM-program (Jan Dhan – Aadhaar - Mobile). Public sector banks waived the merchant acceptance fee for RuPay card transactions. The interchange fee for RuPay card transactions connected to Jan Dhan accounts was completely waived. The Telecom Regulatory Authority of India lowered the tariffs for mobile payments by 65% to stimulate the payments with feature phone (USSD). Even Visa offered a rebated fee for debit card transactions. The cashless payments volumes increased sharply after demonetization. RuPay transactions increased by 20% and the average transaction value fell from 30 USD to 19.50 USD.

The cash demonetisation act seems to be an intended shock-therapy to migrate India from a cash-based economy into a less-cash society, which could be successful due to the strong and patriarchal role of the state in cash and digital payment systems. India could be a questionable sandbox experiment for other economies.

Critical voices e.g. regarding privacy concerns, current state coercion and vulnerability of the centralized Aadhaar databank are hardly audible. However, we found a critical blog statement:

*"Demonetization is probably the most badly planned and implemented move by any government in the history of India. They continue to fool the people by slogans like digital India, cashless society/economy etc. With some of the lowest and slowest internet/broadband coverage in the world, and with less than 20 percent of the population with smartphones, all this will not happen in decades."* [2]

After the Cyprus crisis of March 2013, where deposits were decimated overnight, cash advocates stressed the security of central bank-issued cash against state initiated expropriation. The Indian example did not strengthen their case.

# Nets: Successful IPO and set-back in mobile payments

(mk) On September 23, 2016, markets have witnessed the successful IPO of Nets, the Nordic payment processor. The offer price set at DKK 150 per share, gave Nets a market capitalisation of DKK 30.0 billion (about EUR 4 billion).This is a great success for the management of Nets and for its owners which had purchased Nets from Nordic banks in 2014 for about EUR 2.4 billion.

However, since the IPO, the share price has been sliding downward. Moreover, Nordea, one of the large Nordic banks announced that it would drop Swipp the m-payment system developed jointly with Danish banks and Nets. Instead, Nordea opted for MobilePay, a system developed by Danske Bank. Danske Bank has opened its platform to all Nordic banks, and others may be following Nordea's lead. This is a heavy blow for Nets in a market that is expected to grow significantly.

## Our Comment:

When the Nordic banks sold Nets its new owners managed surprisingly fast to improve financial performance and were capable to float a sizable fraction of the company within 2 years. This success could be interpreted as another example of the advantages of for-profit production instead of joint ownership and cost sharing. In fact, there are a number of recent examples of payment processors that were jointly owned by their client banks that were sold off. Only a few months ago, UK banks have sold VocaLink to Mastercard and in 2015 Visa Inc. bought Visa Europe from European banks. It may well be that these sales will create a more competitive landscape that will serve banks, and their clients well. However, the number of payment processors is limited and expected to decline. Thus, in the end, this set-up may create an uneasy balance of mutual dependencies. Banks are increasingly dependent of large processors and may find it difficult to switch in cases when, for instance, processing fees are going up.

On the other hand, the new owners have paid high prices for processors that can only be justified by the expectation that the former owners, the banks, will remain clients for the foreseeable future. The inability to agree with Danske Bank on a joint m-payment system and the recent move of Nordea seem to prove that such an expectation may not always be fulfilled. Thus, at the moment it is still far from clear which of the two models, mutual ownership or joint stock company, is going to be the clear winner.

Notes
1 See ECB (2015): Fourth report on card fraud, p. 25.
2 Comment of “Shantanu” to the article “Government wants Aadhaar enabled payment to replace debit, credit cards”, Indian Express of 2 December 2016
http://indianexpress.com/article/business/banking-and-finance/government-wants-aadhaar-enabled-payment-to-replace-cards-4406261/

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