PSD2 SCA being effective – First results, observations and recommendations

Profitcard 2021

Kurt Schmid, June 2021

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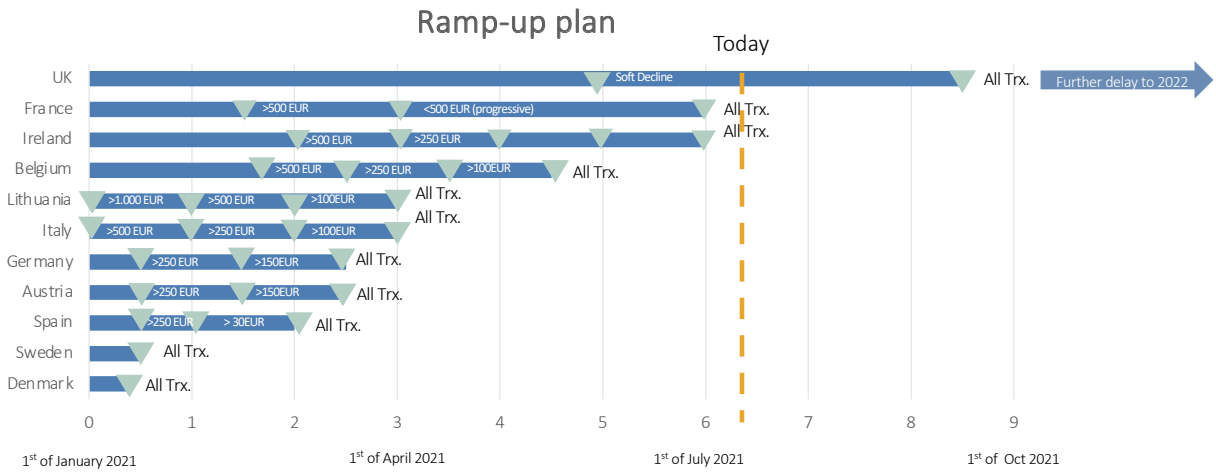
Ramp-up Plan for PSD2 SCA



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PSD2 Exemptions and it's Opportunities

PSD 2 Exemptions = no SCA applied
Frictionless process, without challenge
Optional for use

Benefits
Reduce of abandonment rates
Provide seamless customer experience

How it works
Appropriate risk scoring is applied
No other exemption has been applied

Security at first place
Issuers can still reject the exemption, even with met criteria

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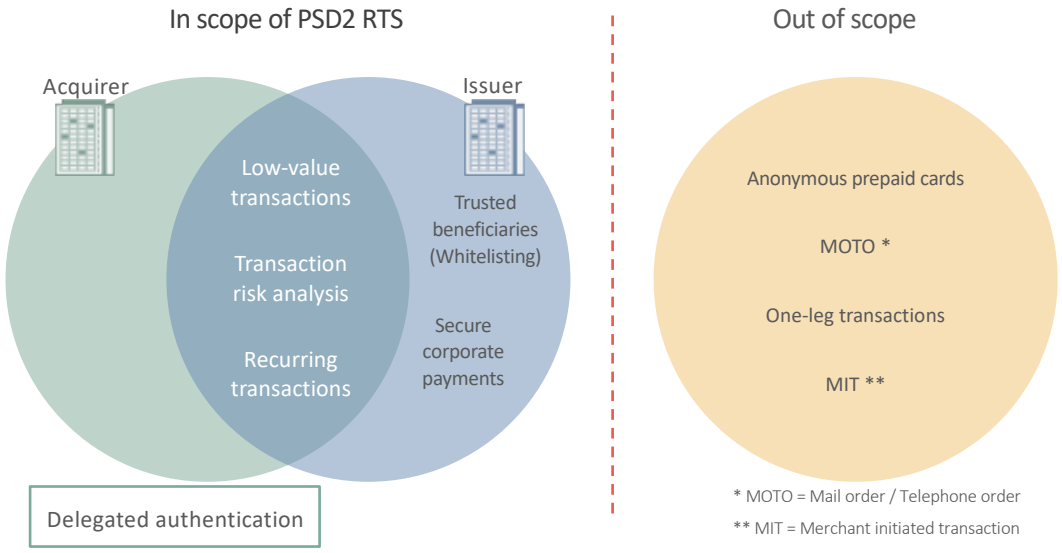
Which PSD2 Exemptions can be Used by Acquirers?



* MOTO = Mail order / Telephone order
** MIT = Merchant initiated transaction

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Low Value Transactions

1

Transaction amount ≤ 30€

AND

2

Σ (Transaction amounts since last SCA) ≤ 100€

OR

Nº (Transactions since last SCA) ≤ 5

Acquirers cannot correctly count the number of consecutive low value transactions
nor the cumulative amount since the last SCA.
This can only be checked by the issuer during payment authorization.

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Transaction Risk Analysis (TRA)

1

Low level of risk
Risk assessment is mandatory!

2

Transaction amount ≤ ETV *
(based on the Acquirer's fraud rate)

* ETV = Exemption threshold value

ETV (in €)	
> 500	Not applicable for TRA
250 ≤ 500	1 bps = 0.01% (1 out of 10.000)
100 ≤ 250	6 bps = 0.06% (6 out of 10.000)
≤ 100	13 bps = 0.13% (13 out of 10.000)

* for remote electronic card-based payments

Fraud reporting to National Competence Authority

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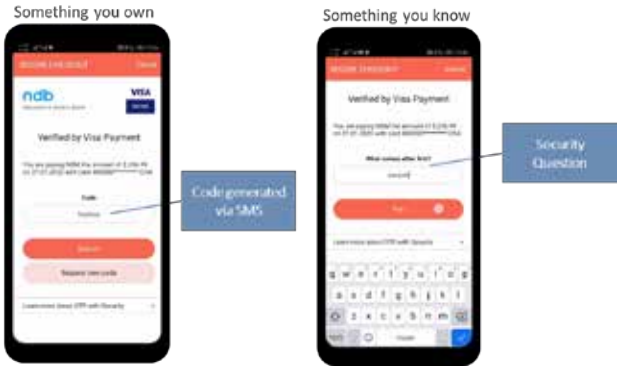
2FA Authentication provided by Netcetera 3DS solution

OOB – Out of Band

OTP – One Time Passcode



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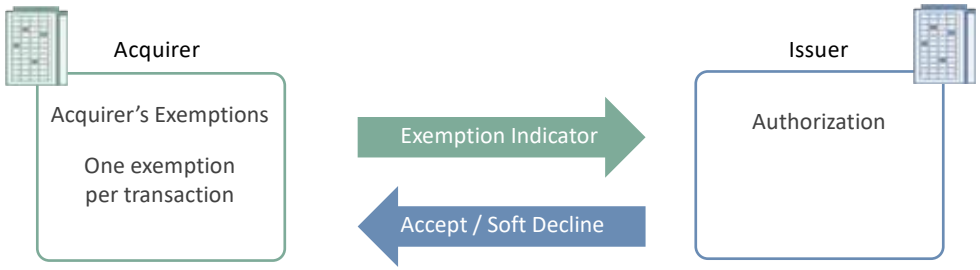
Direct Authorization With Acquirer's Exemption



When a transaction is soft declined, it must go to 3DS, even in case another exemption could be applied.

The schemes recommend Issuers to not systematically decline authorizations without authentications.

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Conversion

How can merchants and PSPs measure their conversion ?

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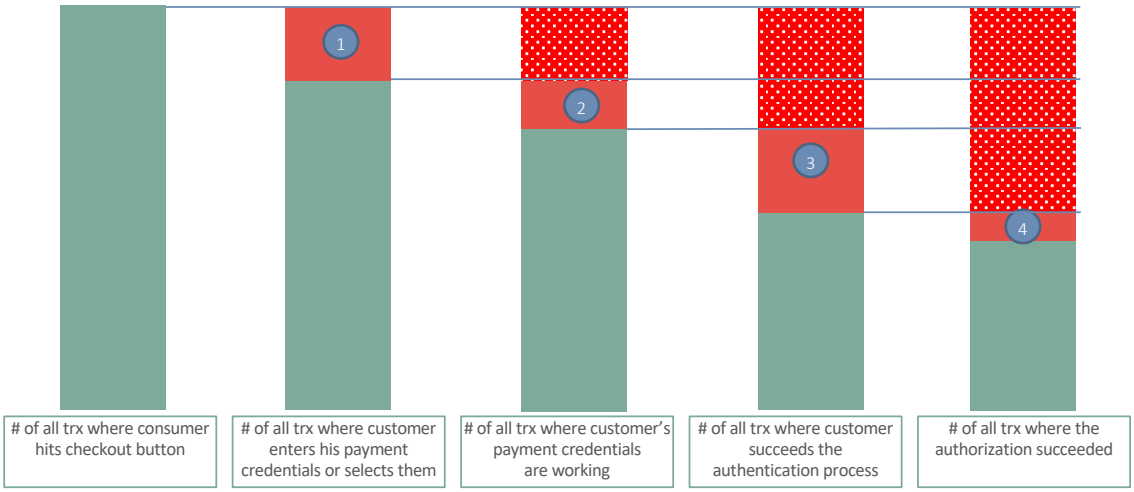
What is Conversion and how to Measure?



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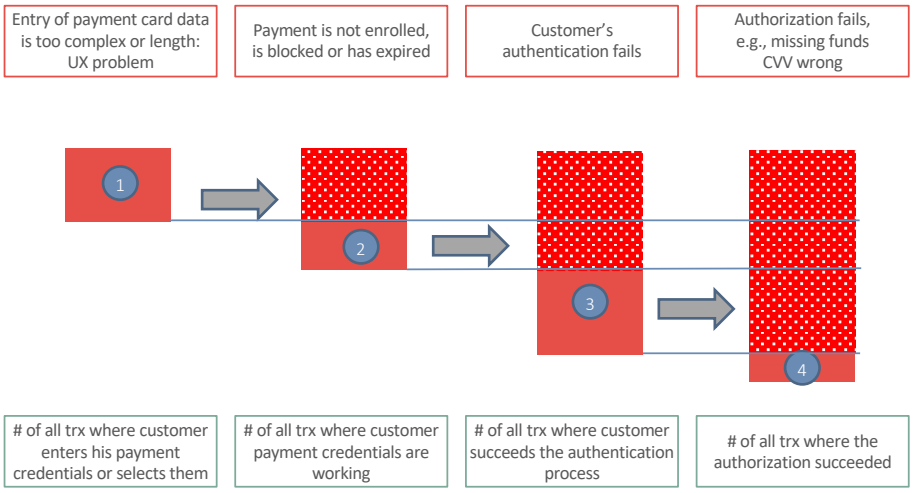
What are the Points of Loss?



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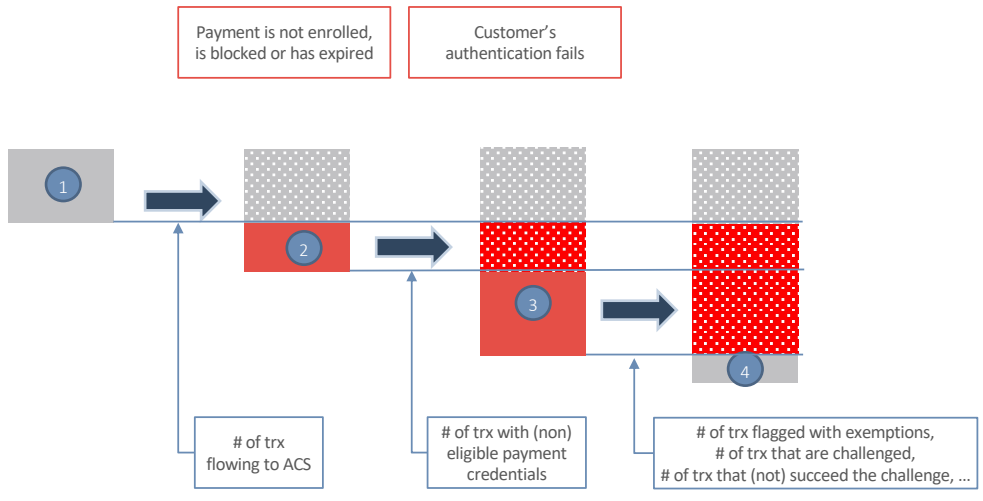
What we at Netcetera Measure



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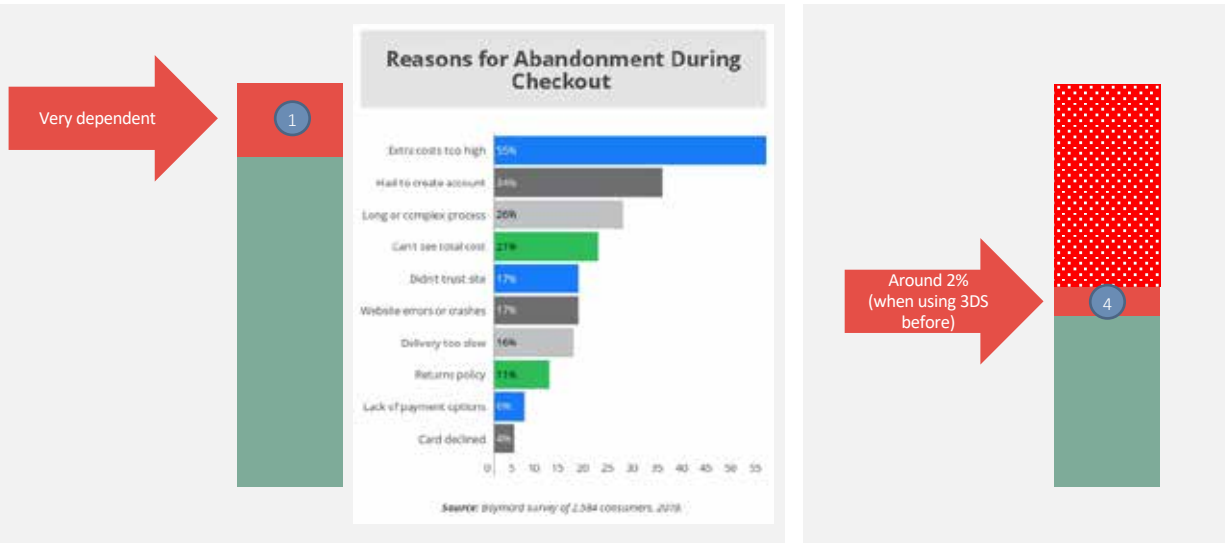
Magnitude that we do not measure?



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How did we Measure?

We took data from our ACS at selected dates (same weekdays)
at selected hours in the afternoon, so looking into ~ 2,5 mil datapoints
with each around 50 attributes = 120 Mio fields

Data extracted monthly from July to Dec 2020 and
then around weekly intervals starting 2021.

We have excluded transactions outside of EEA,
both from issuer side but also from merchant side
(so not considering one-leg or even two-legs out)

We have excluded any test and non-payment transactions
(excluded transactions with 0 amount)

We have written a Python program to do the math
and generate appropriate queries and tables

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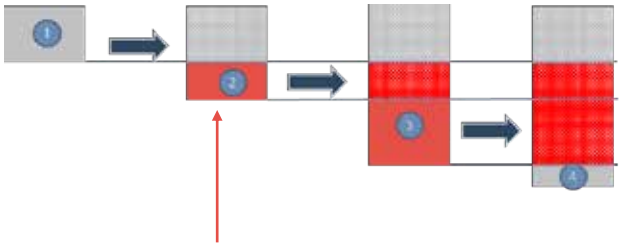
Card not enrolled / blocked



In average only 91% of cards are enrolled

The best issuer has only 0,5% of not enrolled cards. So, by proper onboarding and supporting of all challenge methods, the rate can be increased

In average 2,8% of cards are locked

Total conversion loss is

~ 12%

(not enrolled, deleted, locked…)

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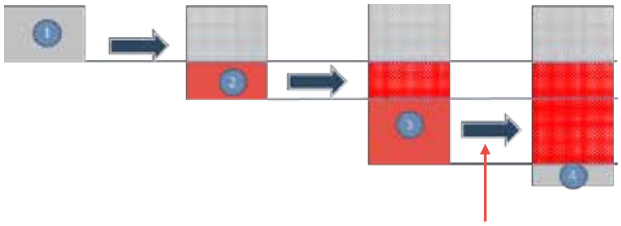
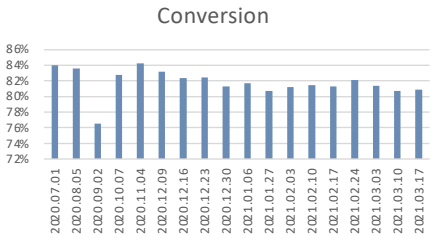
AAR = Authentication Approval Rate





In average around 82% of all trxs are approved in the 3DS process

Trend for conversion slightly decreasing

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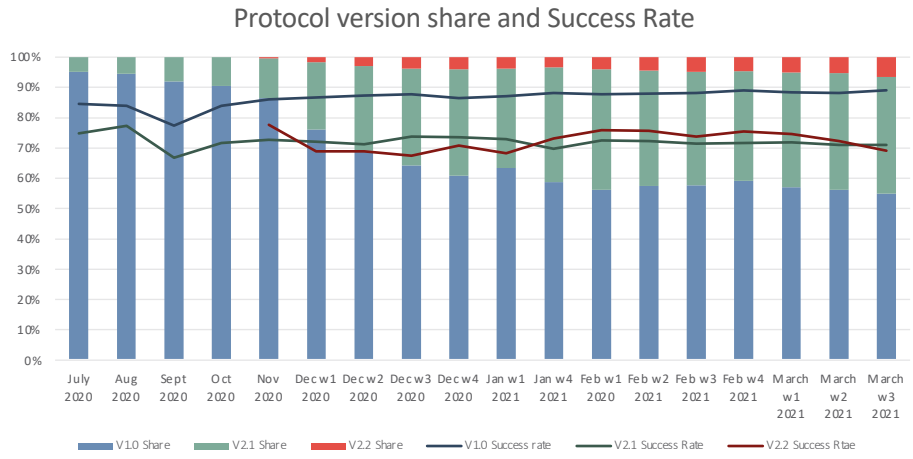
The share of the EMV 3DS transactions is increasing



The volume of V2.1 transactions has significantly increased

V2.2 transactions starting to appear, but their Success Rate is not stable

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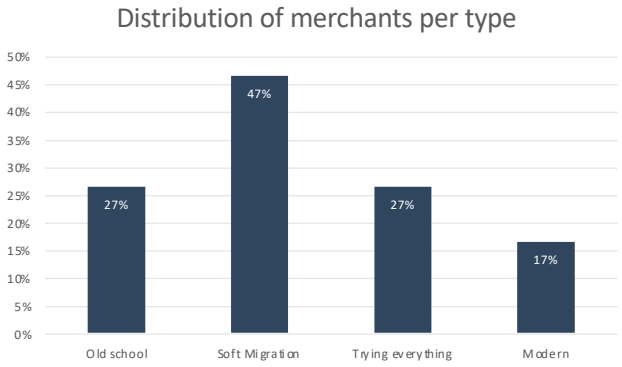
Protocols used by the merchants



Old school Merchants
sending only 3DS V1.0 messages

Soft Migration Merchants
decrease of the 3DS 1 processed # of messages
increase of EMV® 3DS 2.x processed # of messages

Trying Everything Merchants
send messages with both protocol versions

Modern Merchants
send only EMV 3DS messages

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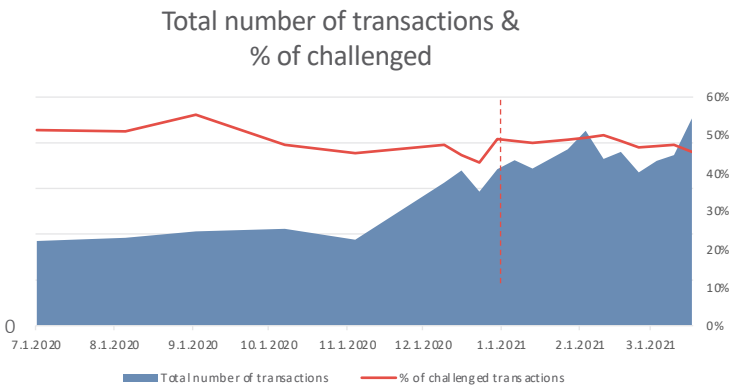
Total number of transactions and % challenged



The total Number of transactions processed with 3DS protocol is increasing when compared to the period before September 2020

The percentage of transactions that were challenged is slightly decreasing, when compared with the period of before September last year

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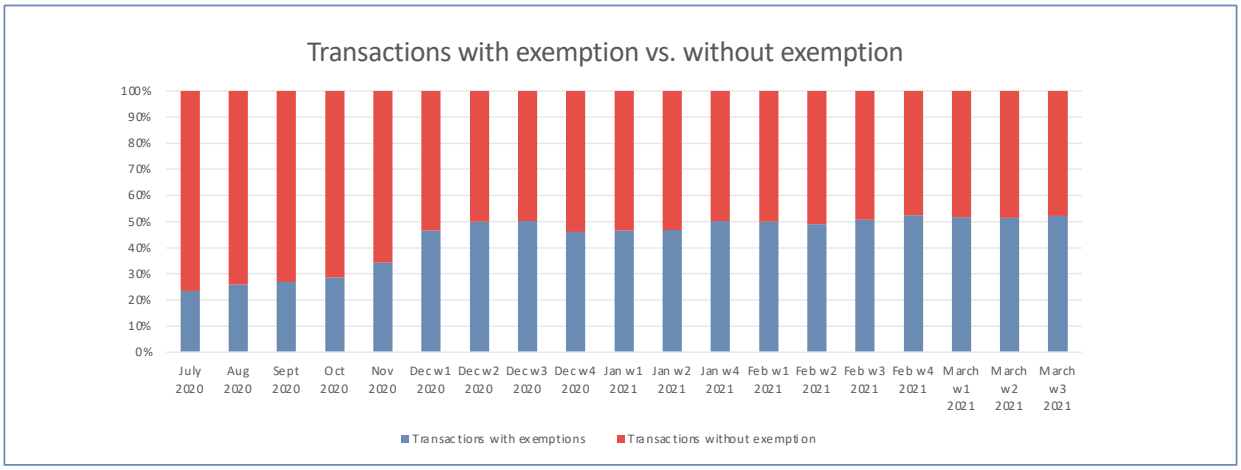
The Share of Transactions With Exemption is Increasing



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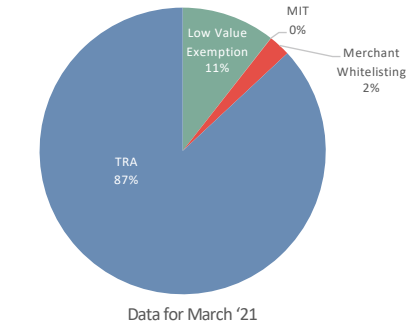
Most of the Exempted Transactions use TRA



The Risk exemption (TRA) covers highest share of all the exemptions

Low value exemption is the second one, being applied on 11 % of the transactions with exemption

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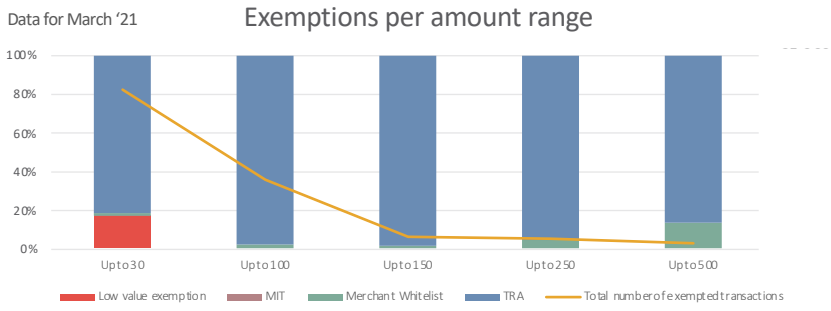
In which amount range the exemptions are applied



Most of the exempted transactions are in the range of up to 30 EUR

Low value only in the segment up to 30 EUR

MWL and TRA are in the higher segments, although very few transactions

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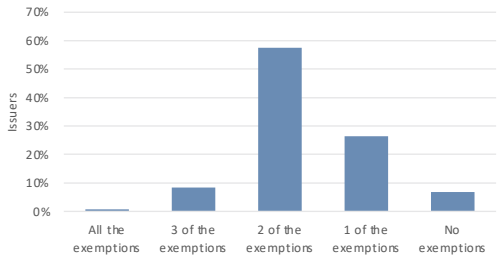
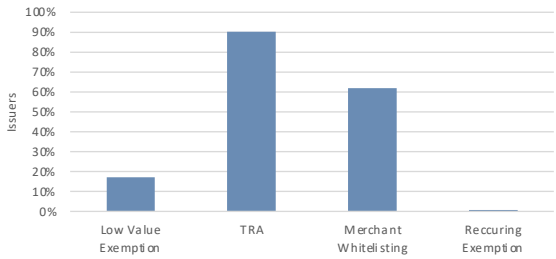
% of Issuing Banks processing all, some or none of the exemptions

Number of different types of exemptions processed by Issuers



Most of the Issuing banks have processed 2 different types of exemptions

% of Issuers using the exemptions

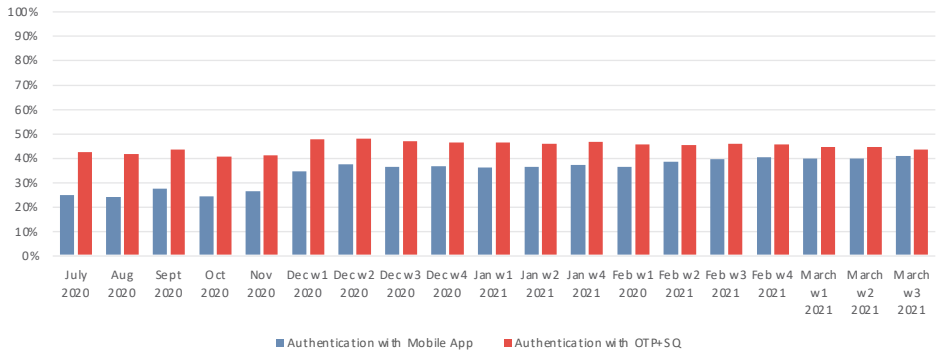


TRA is the most popular among the Issuers

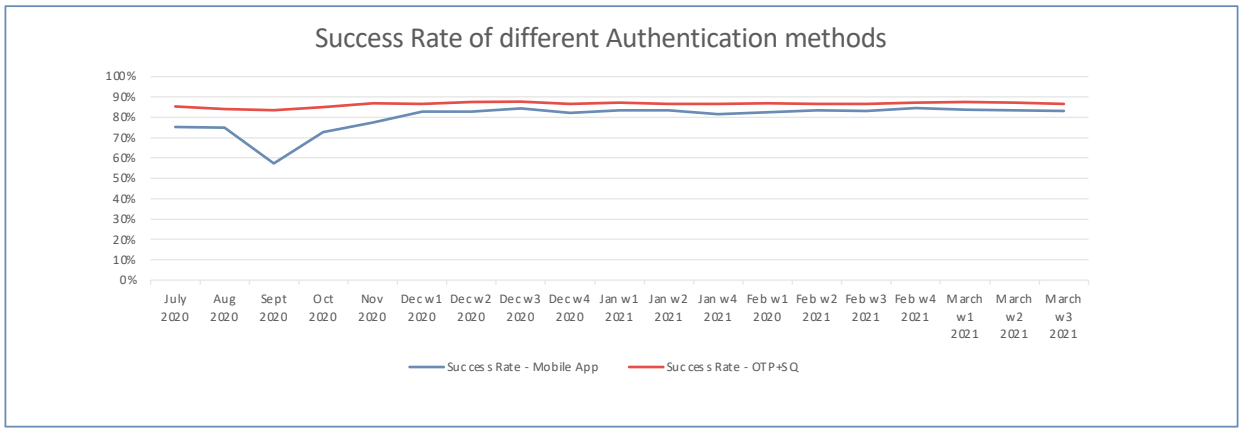
**Secure Corporate Payment has not been applied in the sample we have analyzed*

Increasing share of authentication with Mobile App

Share of transactions with different authentication method



Success Rate of different Authentication methods



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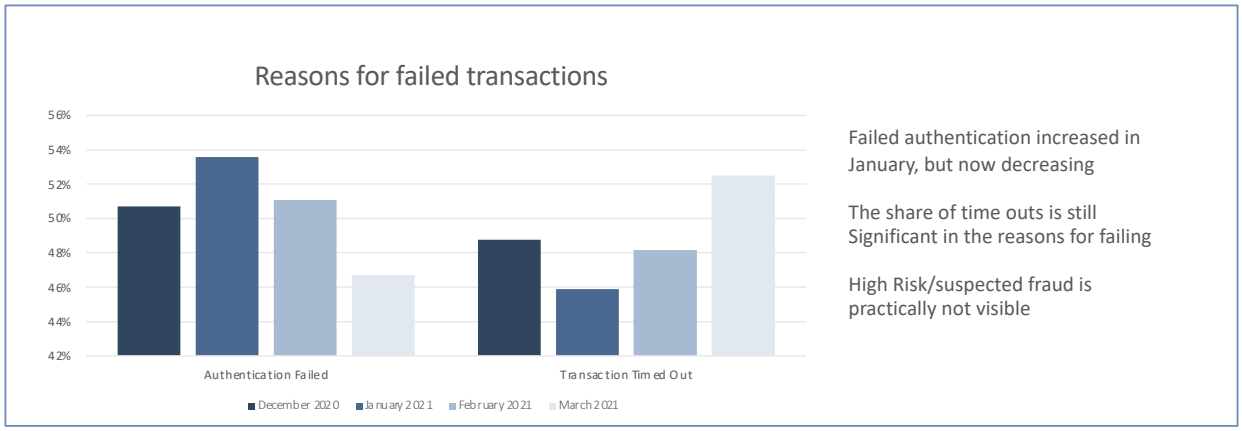
Reasons for failed authentication



Failed authentication increased in January, but now decreasing

The share of time outs is still Significant in the reasons for failing

High Risk/suspected fraud is practically not visible

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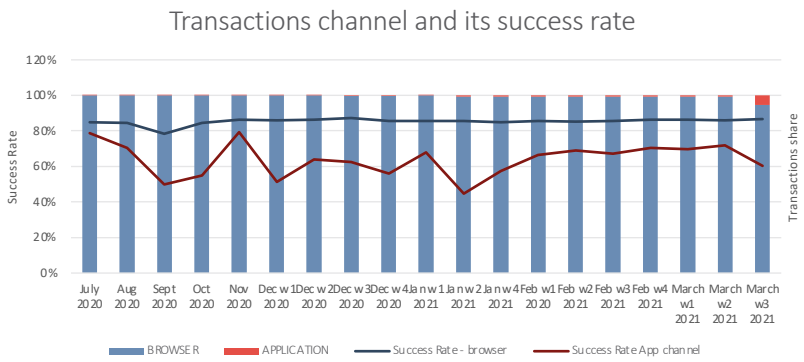
Increasing share of transaction from app channel



The share of the transactions coming from app channel is increasing

The conversion rate for the app channel is still shaky

Stable Success Rate for the transactions coming from browser channel

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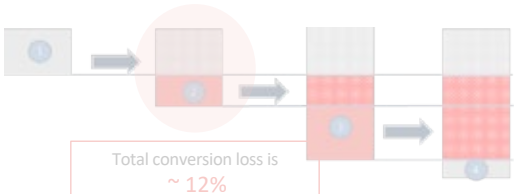
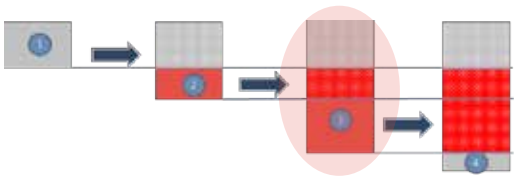
Findings



Total conversion loss is ~ 12% *(not enrolled, deleted, locked…)*

Based on good practice the customer onboarding can be developed to improve the conversion significantly



In average around 82% of all transactions are approved in the 3DS process

Usage of TRA & LVP exemptions will help conversion

By offering whitelisting issuers can easily increase conversion

Directly sending transactions to the authorization brings the risks of soft declines (removing the possibility to apply exemptions)

App Channel is performing (still) poor

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Summary & Recommendation

Communication to cardholders is key to help them to adopt the SCA methods (OOB, OTP)

Cooperation between all parties (three domains) will help solving the interoperability issues

Testing, Testing, Testing
(see also https://3dss.netcetera.com/mastercard-psd2-testing/)

EMV 3DS on mobile channel still problematic, although it should be superior in theory as it is in infant status

Proper use of PSD2 exemptions help in decrease the abandonment rate and in improve of the customer's experience (seamless - one click payments)

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