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## Payments to 2025 and beyond

# Charting a course amid evolution and revolution

World Banknote Summit  
February 22, 2023

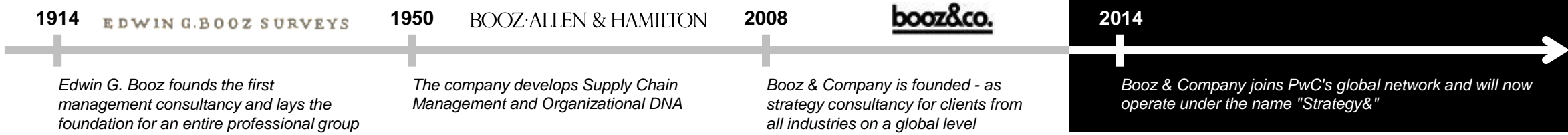


# Strategy& is a global strategy consultancy – our payment leaders stand ready to support across strategy, technology, tax / legal to M&A

## Decline in the use of cash



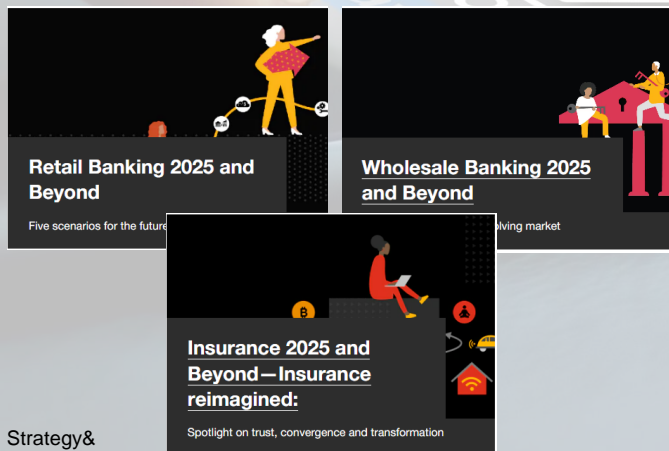
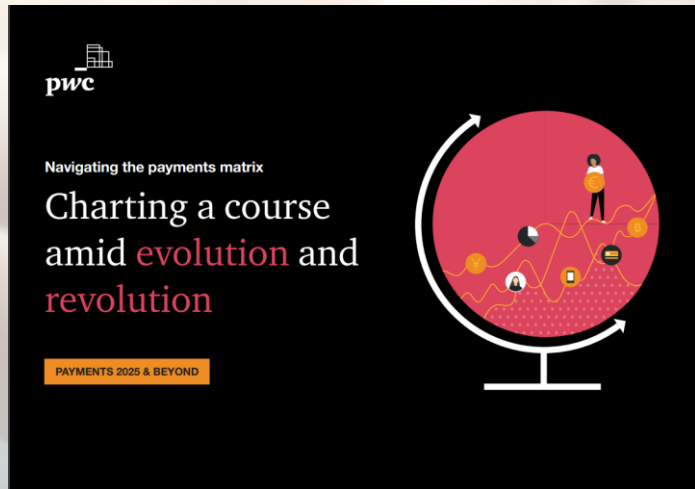
- Global strategy consulting firm, founded 1914
- 68 offices on 6 continents
- Part of the PwC network since April 2014 - represented in 158 countries by more than 250,000 employees
- More than 3,000 employees worldwide
  - Clients: 400 of the Fortune 500 companies as well as public sector institutions
  - Dedicated payments team globally with >400 experts





# 1 Payments trends – Strategy& Survey 2022

# Payments and Open Banking Survey 2022



# Consumer survey across 15 countries – third edition of Strategy& survey

## Sample and methodology

**Sample 2022**

- 5,750 participants
- 15 countries
- Online survey
- September / October 2022
- 10 questions

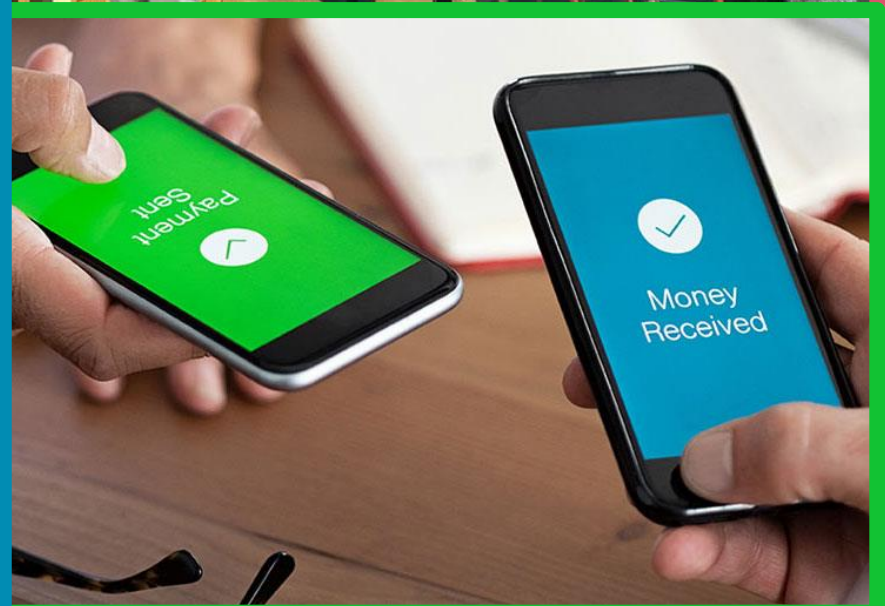
**2018 & 2020**

- Similar surveys conducted with same method in
  - 2018: October/November 2018; 2,500 participants, 10 countries<sup>1)</sup> [Go to 2018 survey](#)
  - 2020: August/September 2020; 3,500 participants, 12 countries<sup>2)</sup> [Go to 2020 survey](#)
- Comparisons in this presentation are always made on a like-for-like basis (i.e. when making comparisons with 2018 data, only the data from the same 10 countries is used in 2020 and 2022 etc.)

1) Excluding Ireland, Turkey, Denmark, Belgium and Finland; 2) Excluding Denmark, Belgium and Finland  
Source: Strategy& Payments and Open Banking Survey 2022

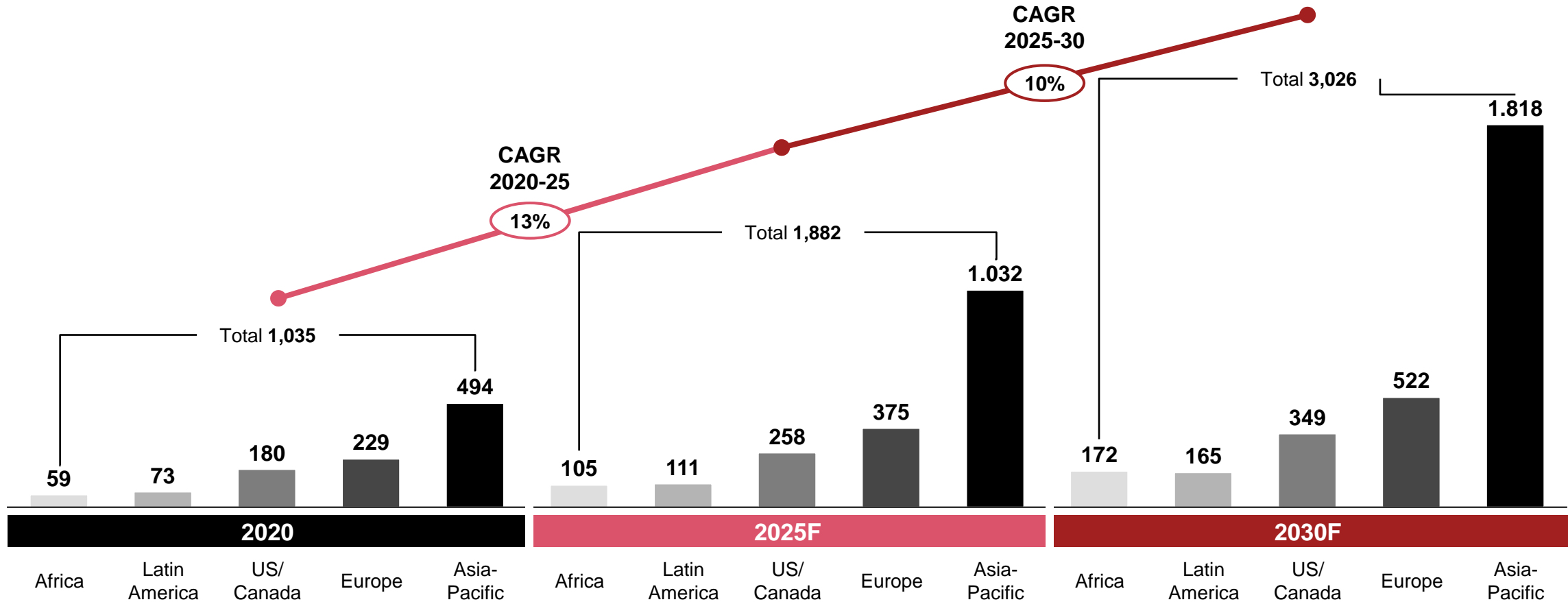


**Simple**  
**Convenient**  
**Instant**  
**Embedded**



# Global cashless transactions are set to almost triple by 2030

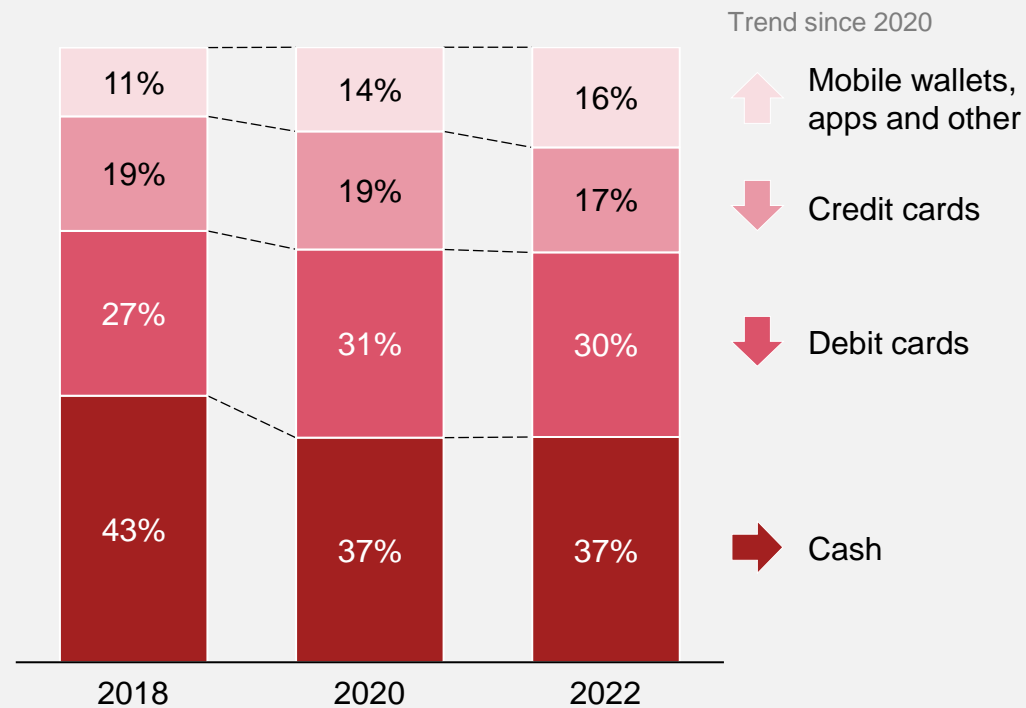
Number of cashless transactions (# bn)



# Payment behavior endures: No post-Covid cash revival, but no acceleration of decline

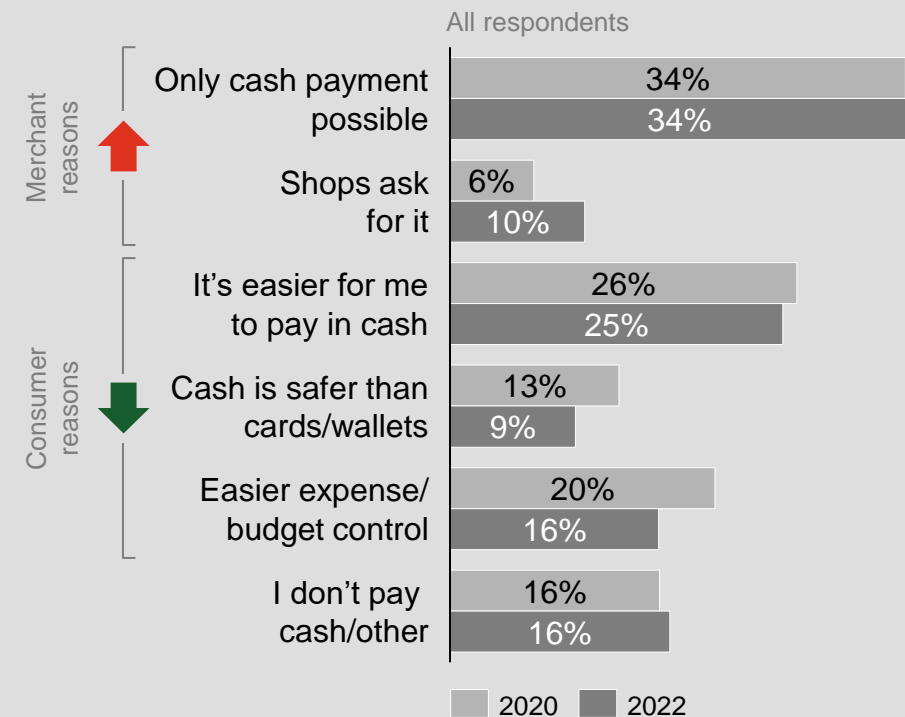
## Decline in cash preference is stable...

**?** What is your general preference for payments when you are shopping or paying for services?



## ...and consumer reasons for cash are weakening

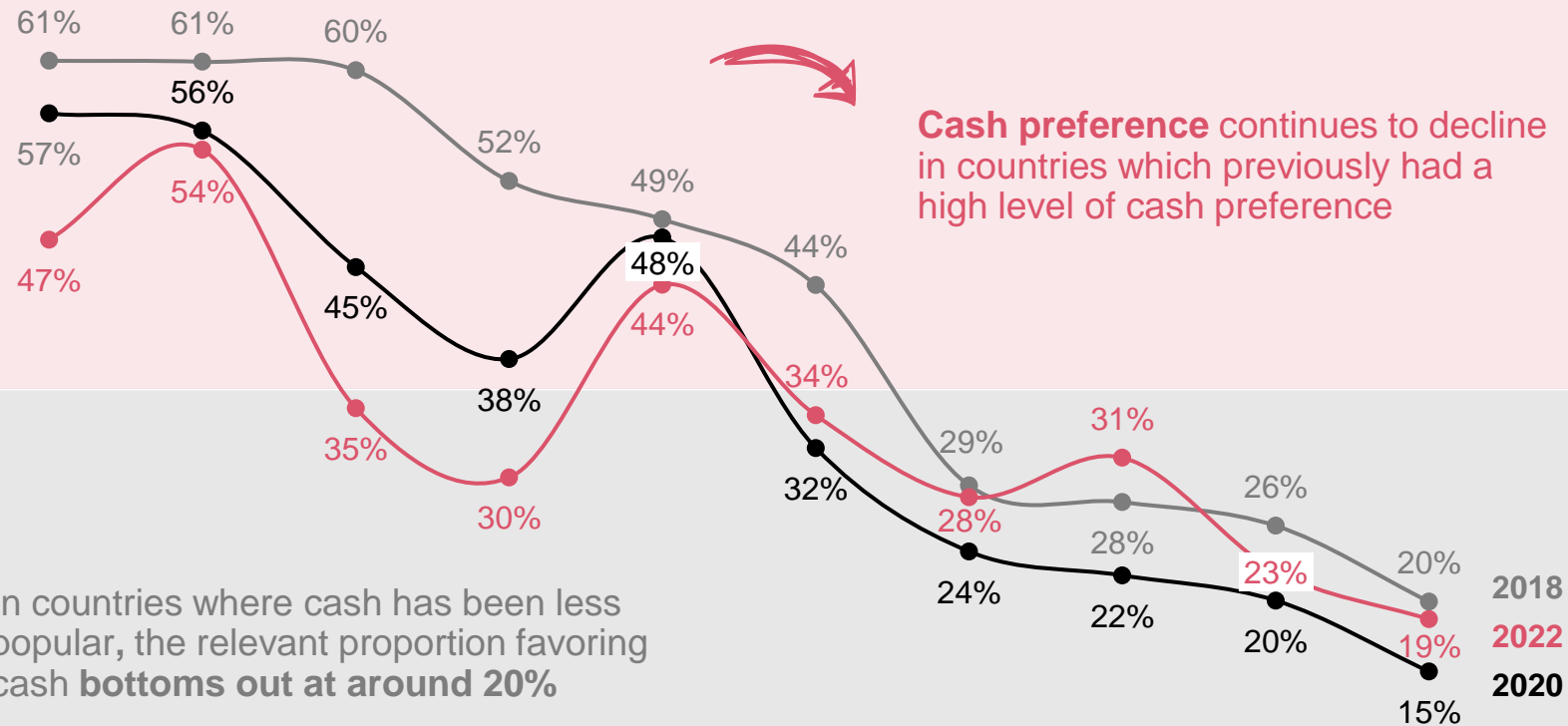
**?** In situations where you pay with cash – what are the main reasons?<sup>1)</sup>



Note: figures may not add up due to rounding; total figure calculated as weighted average based on population | 1) Multiple answers possible; 2) 2022 figures  
Source: Strategy& Payments and Open Banking Surveys 2018, 2020, 2022 (10 countries)

# Cash preference bottoms out at 20% – but is even lower for younger population

## Preference for cash when shopping/paying for services



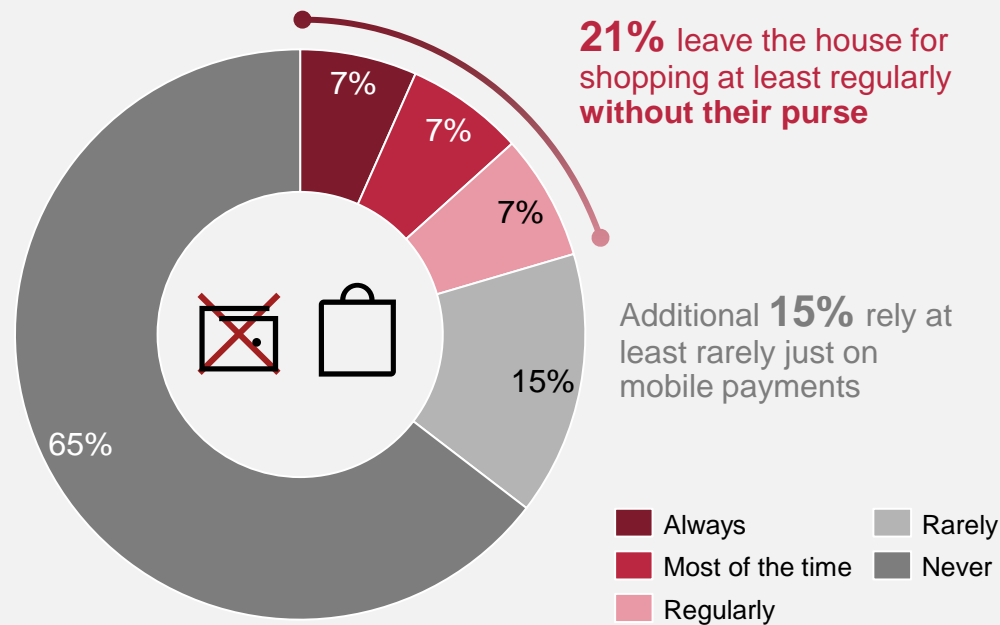
Question: What is your general preference for payments when you are shopping or paying for services? – Answer: 'Cash'  
 1) 2022 figures | Source: Strategy& Payments and Open Banking Surveys 2018, 2020, 2022 (10 countries)



# One in five go shopping without their purse – banking apps become even more relevant, handing advantage to fintechs

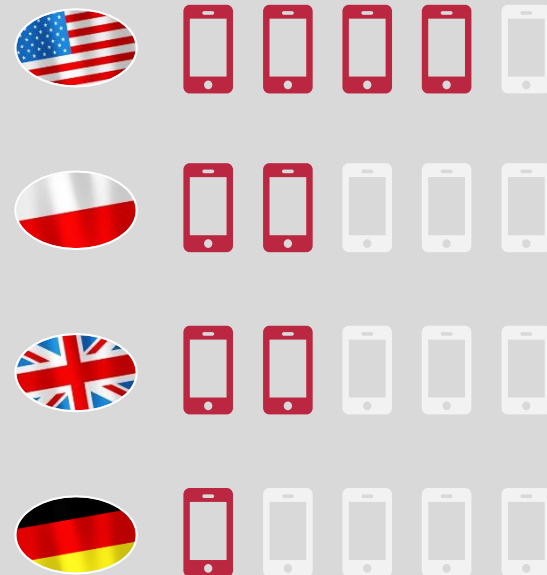
## Mobile wallets replace plastic

**?** How often do you leave the house without your purse (just with your smartphone) to go shopping?



## Fintechs entering top 5

# of fintech apps among top 5 free finance apps (x out of 5)<sup>1)</sup>



## Challenge to bank apps

Fintech apps compared to banking apps (in selected countries)

**3x**

more monthly sessions per user in fintech apps<sup>2)</sup>

**+67%**

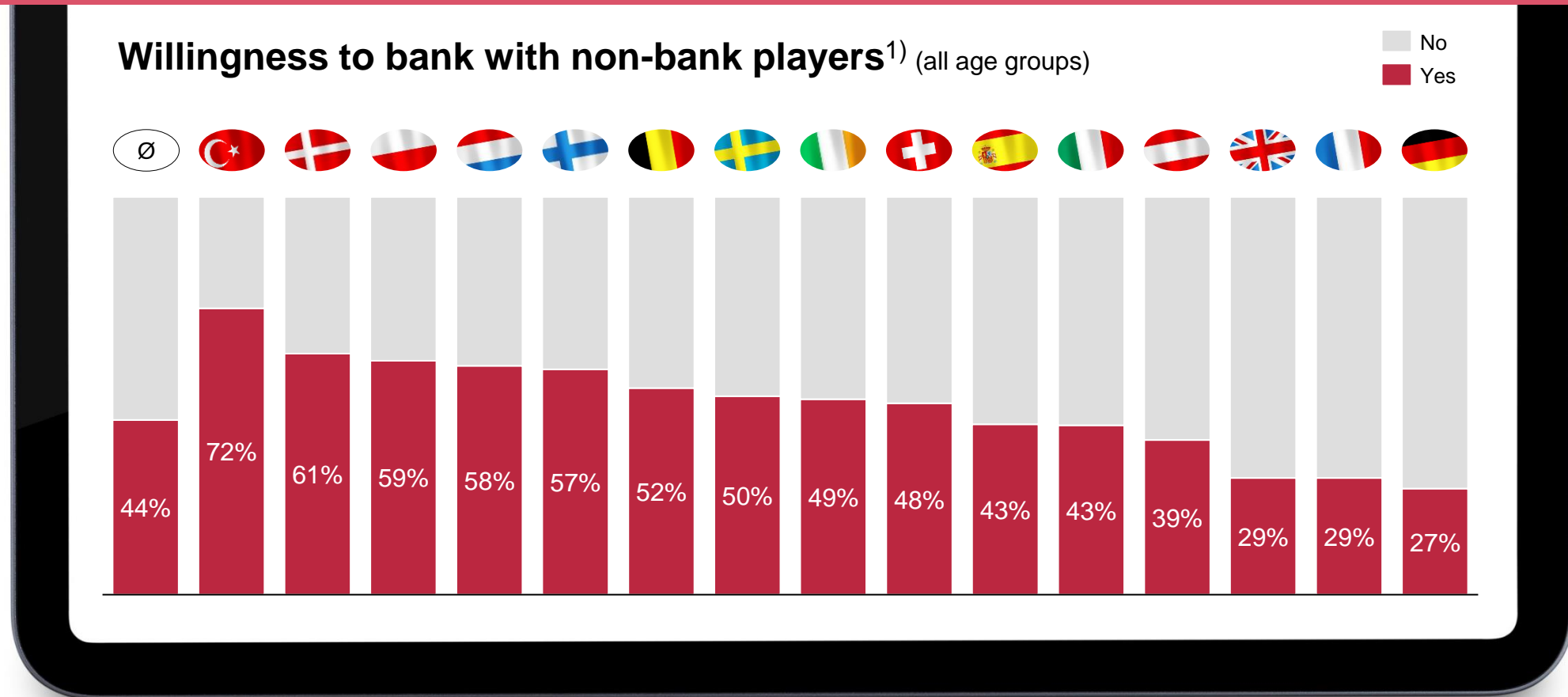
more features in fintech apps<sup>3)</sup>

**-16%**

faster log-in time in fintech apps<sup>3,4)</sup>

Note: figures may not add up due to rounding; total figure calculated as weighted average based on population | 1) Selected countries displayed, as of November 2022, US – Apple App Store: 5 out of 5, Google Play Store: 3/5, PL – App Store: 2/5, Play Store: n/a, UK – App Store: 3/5, Play Store: 0/5, DE – App Store: 1/5, Play Store: 1/5; 2) 2020 figures (Average of TR: 4.4x, UK: 3.0x, FR: 2.3x, DE: 2.1x); 3) Based on analysis of 25 German mobile banking apps, as of Q1 2022; 4) Difference for challenger vs. traditional banking apps (excl. direct banks) shown | Source: Liftoff / App Annie, Optima, SimilarWeb, Strategy& Payments and Open Banking Survey 2022

# Willingness to bank with non-bank players varies by country



Note: total figure calculated as weighted average based on population | 1) Question: Could you imagine opening a bank account with one of the following companies (if they would offer it)? (multiple answers possible) – Answer: all consumers who did not vote 'None of the above' | Source: Strategy& Payments and Open Banking Survey 2022

# Open Banking

Example:

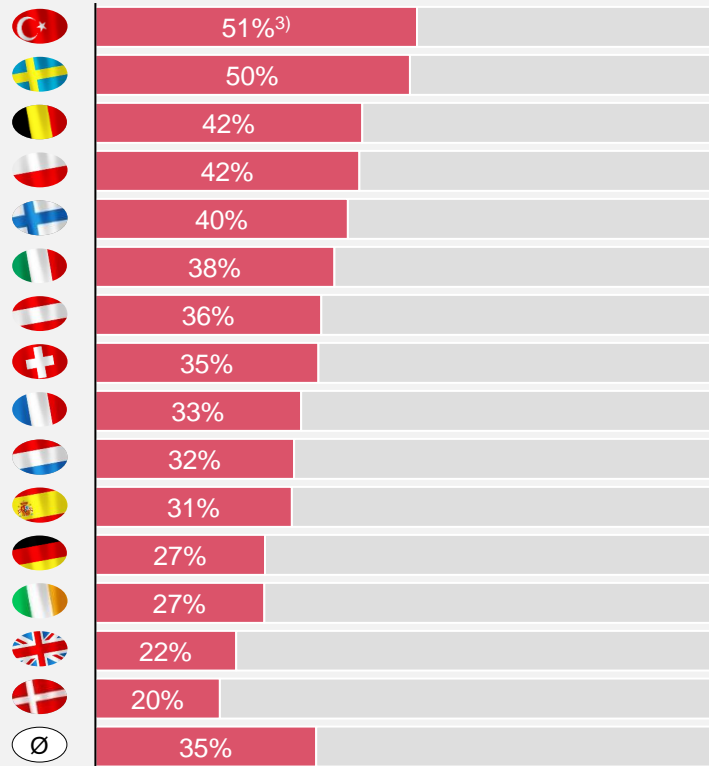
## Buy Now, Pay Later offerings already use key elements

(e.g., account verification, affordability assessments)

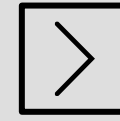


## BNPL is established across Europe...

Share of BNPL users (partially with preference)<sup>1)</sup>

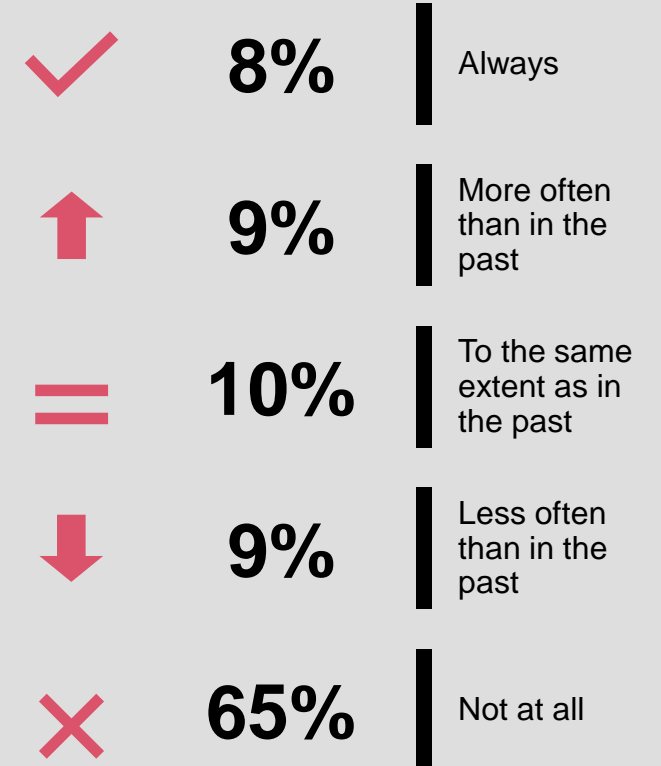


Note: total figure calculated as weighted average based on population; BNPL = Buy Now, Pay Later | 1) Question: Do you try (if possible) to postpone your payments when shopping (e.g., paying in 30 days or in instalments)? – Answer: all consumers who did not vote 'Not at all'; 2) Question: see footnote 1, European average displayed; 3) Mainly card-based | Source: Strategy& Payments and Open Banking Survey 2022



## ...but little recent change in behavior

Changes in BNPL behavior<sup>2)</sup>



# Cashless role: top of mind for businesses and economies

## Payment transformation objectives and 'purpose'

In focus



### FOSTERING FINANCIAL INCLUSION

In 2017 **only 69%** of the global adult population had a bank account or mobile wallet – far from the 2020 **objective of full financial inclusion**



### DRIVING EFFICIENCY, FOSTERING GROWTH

**Reducing costs within the cash value chain** and to ensure financial viability of keeping cash in circulation



### SUPPORTING THE DIGITAL TRANSITION

Digital and instant payments are considered **essential in transitioning to digitally enabled economies**



### ENSURING TRUST IN OUR FINANCIAL SYSTEM

Monetary stability, **payment system sovereignty**, privacy issues and reliability of participants crucial for **trust in financial system**

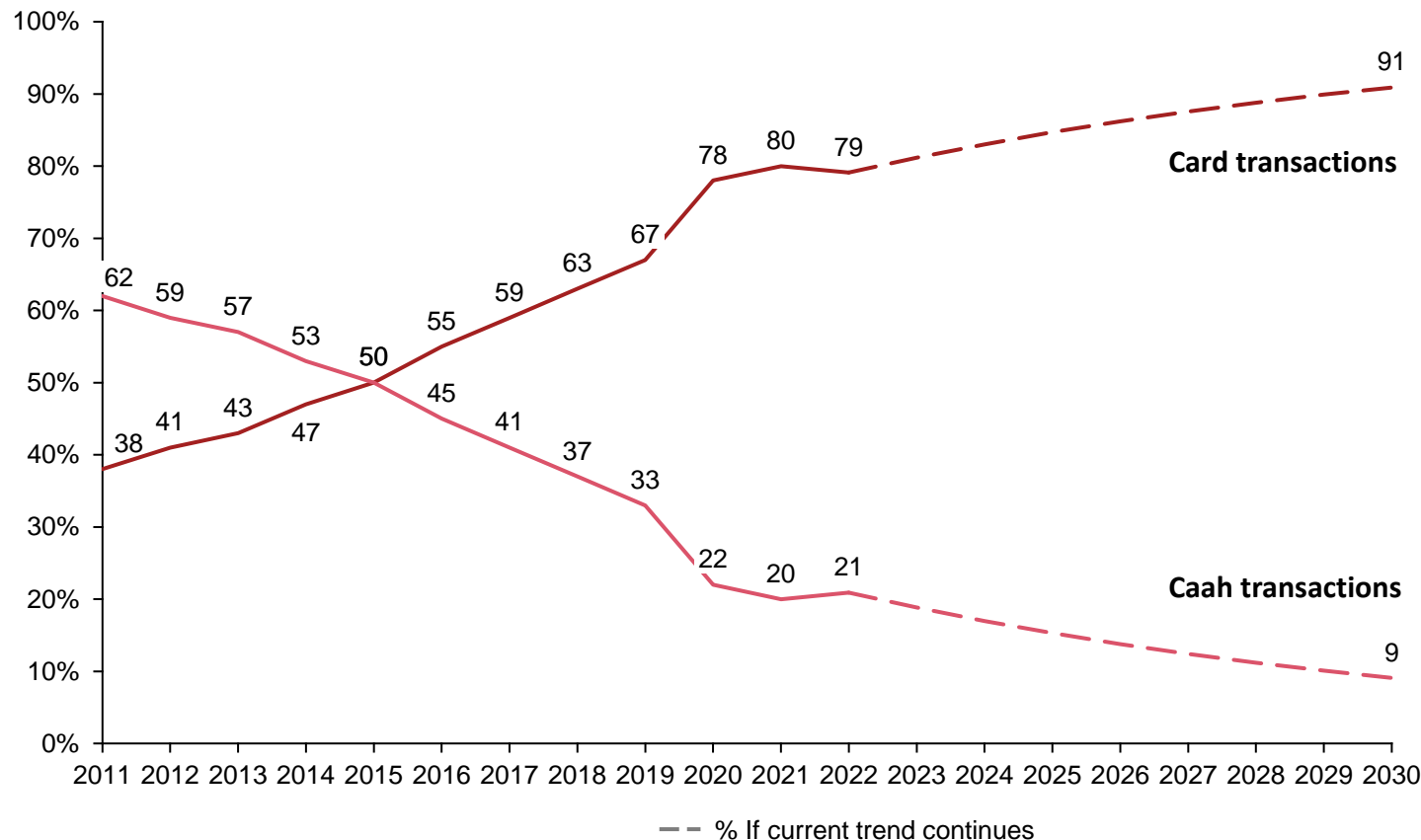


## 2 Cash value chain transformation – Netherlands example

# In recent years, various developments have contributed to the decline of cash in the Netherlands

## Decline in the use of cash

**Declining use of cash for point-of-sale transactions in the Netherlands**  
(% of total number of point-of-sale transactions)



## Changing preferences for payment methods

The use of cash has declined sharply in recent years, partly due to the digitization of services and shifts in preferences of consumers and retailers<sup>1</sup>

**73%** of consumers prefer to use debit cards for point-of-sale transactions (2016: 53%)

**73%** of consumers over 65 use debit card as a payment method for point-of-sale transactions (2016: 44%)

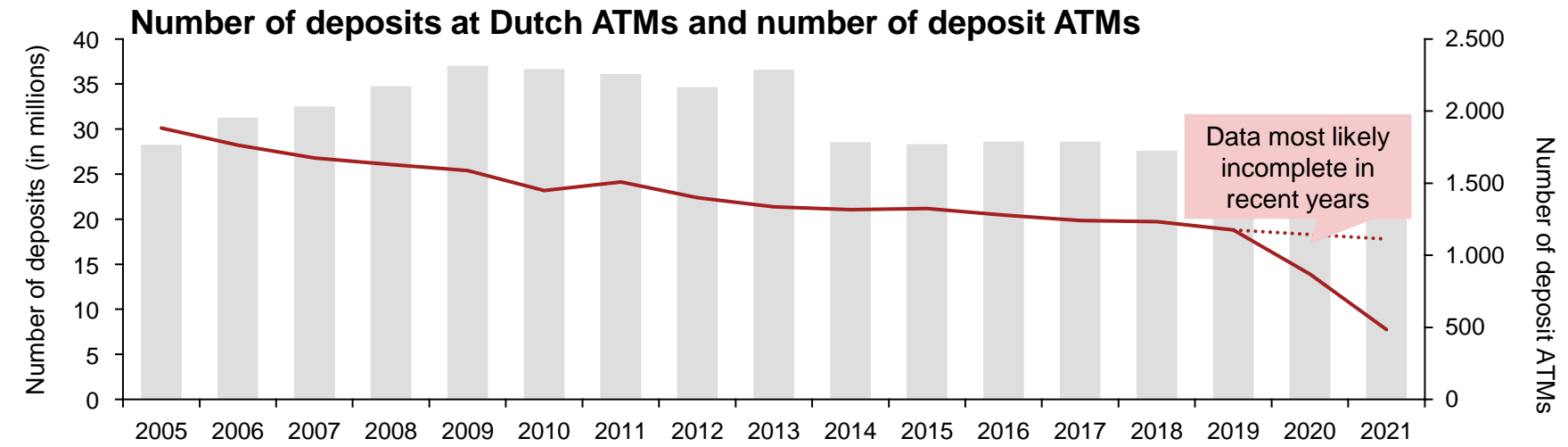
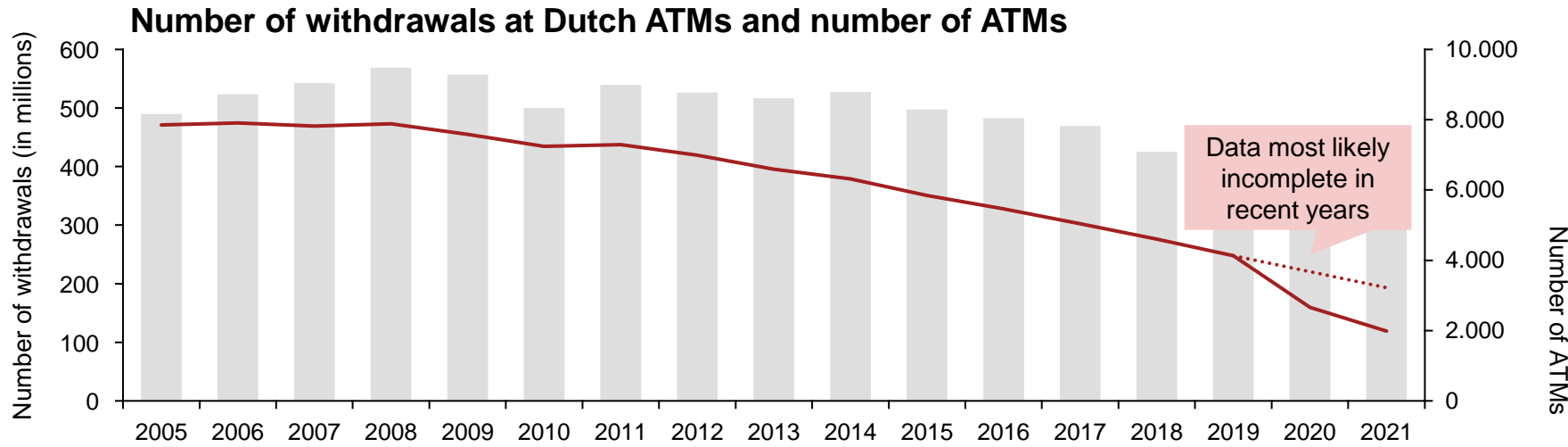
**61%** of peer-to-peer payments are made electronically (2016: nil, year that Tikkie was introduced)

**86%** of point-of-sale payments that took place were contactless (2016: 55%)

If the current trend continues, in 2030 only 9% of point-of-sale payments will be cash

# The number of ATMs for both withdrawals and deposits and their use has declined sharply in recent years

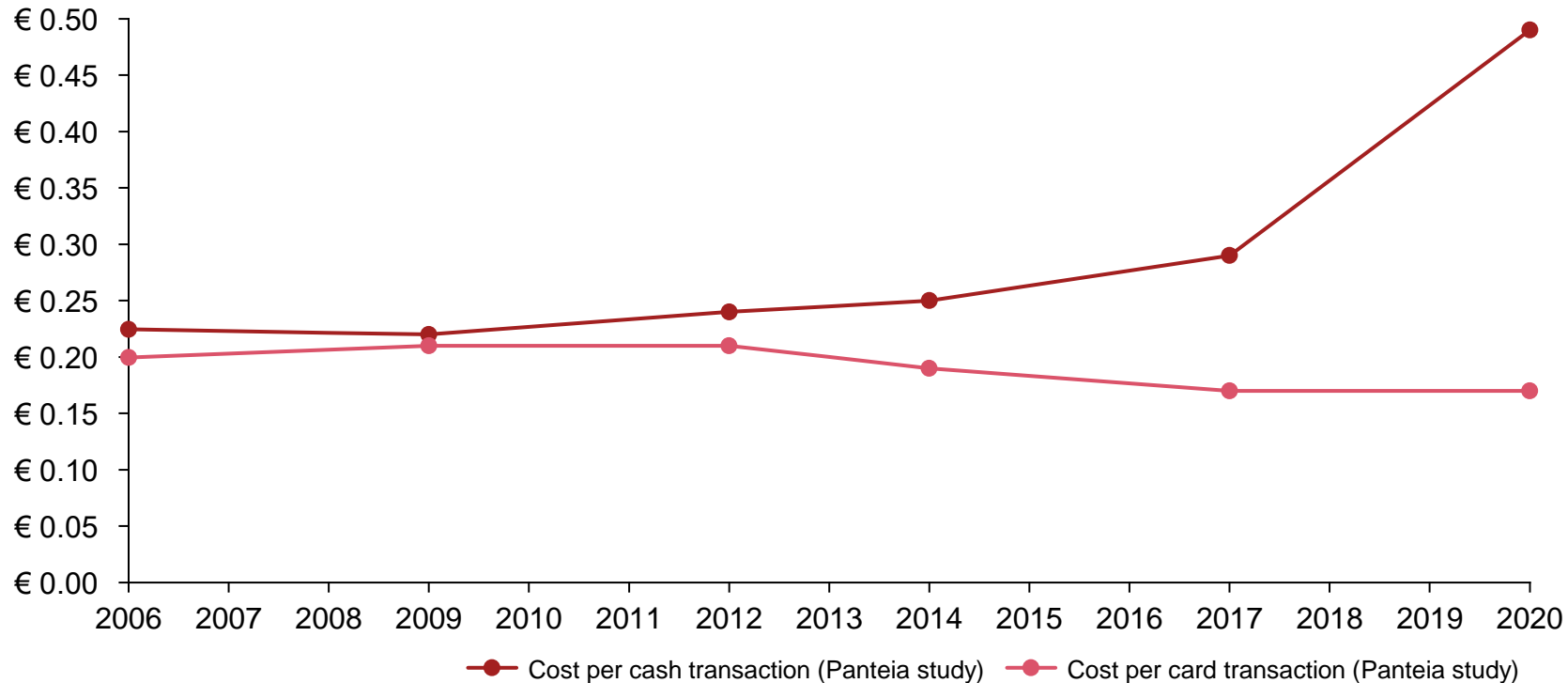
## Number of ATMs and usage in the Netherlands



- The number of **cash withdrawals** in the Netherlands has been **declining for years**. Over the past five years, the number of withdrawals has declined by about 10% per year, from about 330 million in 2016 to 120-190 million in 2021
- The **number of ATMs** increased from about 8.200 to 9.500 between 2005 and 2009, and then decreased to about 4.900 in 2021
- With a constant number of ATMs, a further **decrease** in the number of **transactions hampers** their **financial viability**
- The number of **deposits** has **fallen** by an average of about 10% per year over the past five years. The number of ATMs first increased to 2.297 in 2010 and then decreased to 1.289 in 2021

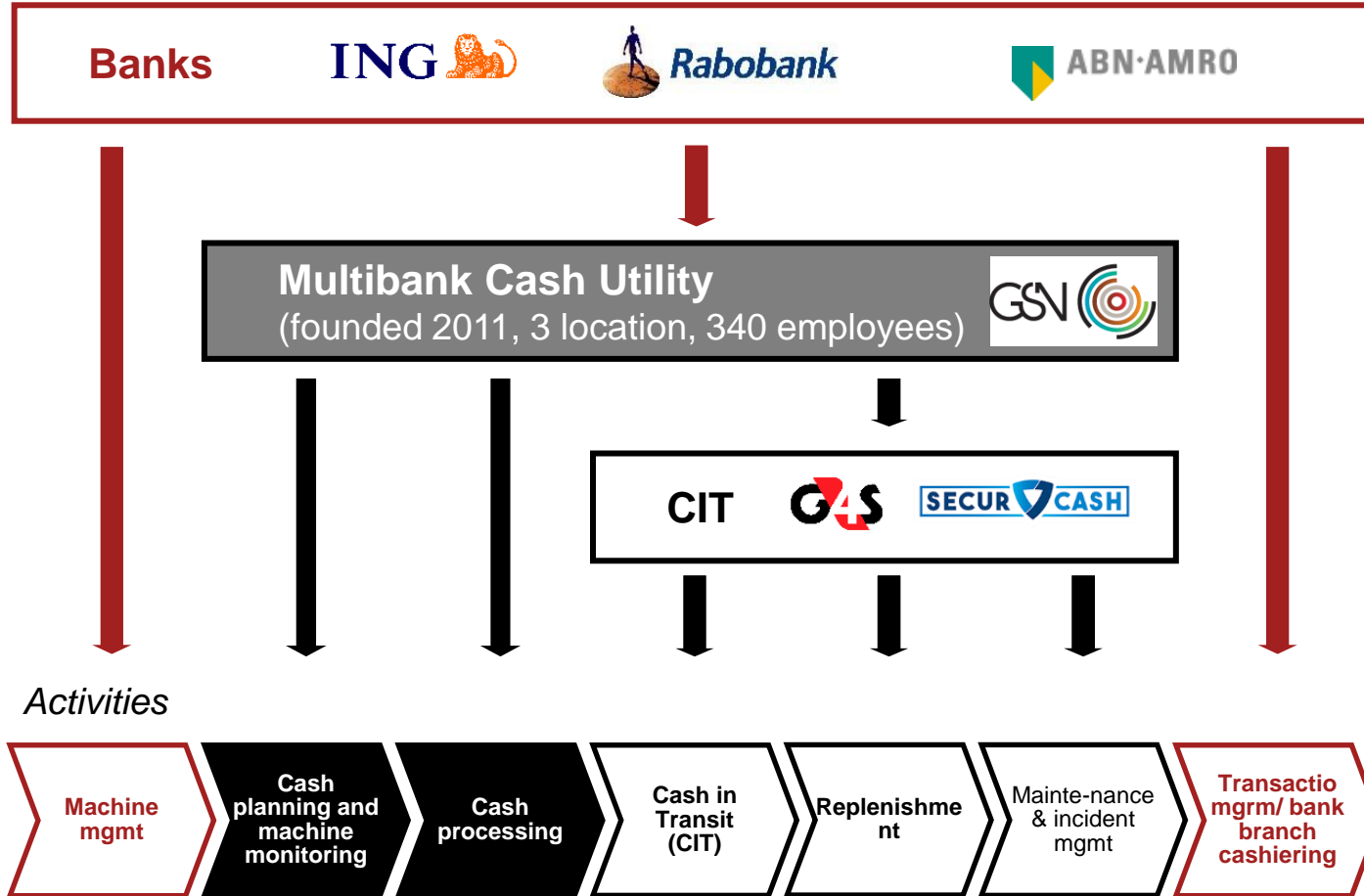
# Costs borne by retailers for accepting cash have more than doubled, while card transaction costs declined slightly

Costs for retailers per accepted PoS transaction

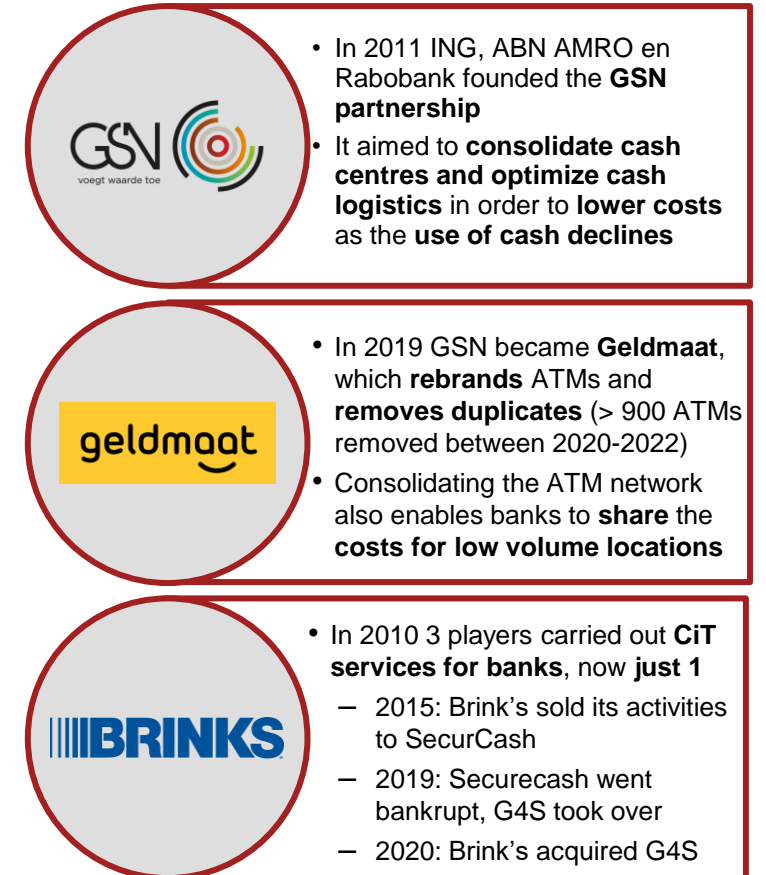


# Starting with cash processing is a common first step towards a holistic joint cash utility – example GSN in the Netherlands

## Structure of the cash processing value chain in NL – project example



## Stages of consolidation



# Joint utilities in Europe are evolving (over time) into full ATM operators

## ATM collaboration examples in Europe

- 5 largest banks combining networks
- 3 device manufacturers, 1 CIT provider
- Same services, UX
- ~500 places, 1,800 ATMs (cash-in/ cash-out)



**Bankomat®** Joint ATM operator

Since 2010

Danske Bank Handelsbanken  
Nordea Swedbank SEB

**Reduction of ATMs**  
from 2013 to 2018 circa 20%



**Otto.** Joint ATM operator

Since 1994

All Finnish Banks

**Reduction of ATMs**  
from 2013 to 2018 circa 30%

- Start with 5 banks, now all (since 2004)
- Joint devices since 1999 (2<sup>nd</sup> generation 2010)
- CIT for branches (2000), cash-in devices (2013)
- ~1,200 places, 1,500 ATMs

- Founded in 2011 as cash utility organisation ('GSN')
- Uniform ATM launched in 2019 with geldmaat brand
- Aim: safety (less cash/ more refill), better footprint
- 5,000 ATMs move to geldmaat over 2019/2020




**geldmaat** Joint ATM operator

Since 2019

ABN-AMRO ING Rabobank

**Significant reduction of ATMs planned**



Worldline | SIX **ATMfutura** Shared software and monitoring

Since 2017

CREDIT SUISSE  
RAIFFEISEN UBS

**Phase 1: Multi-vendor software solution**

- Multi-stage program to harmonise ATM operations
- 2017 multi-vendor software, monitoring – after years of project/alignment
- Covering up to 4,000 ATMs
- Basis for wider BPO offer

# Thank you

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