

strategy&

---

# Cash dynamics – responses to declining volumes

ESTA Conference  
June 2024

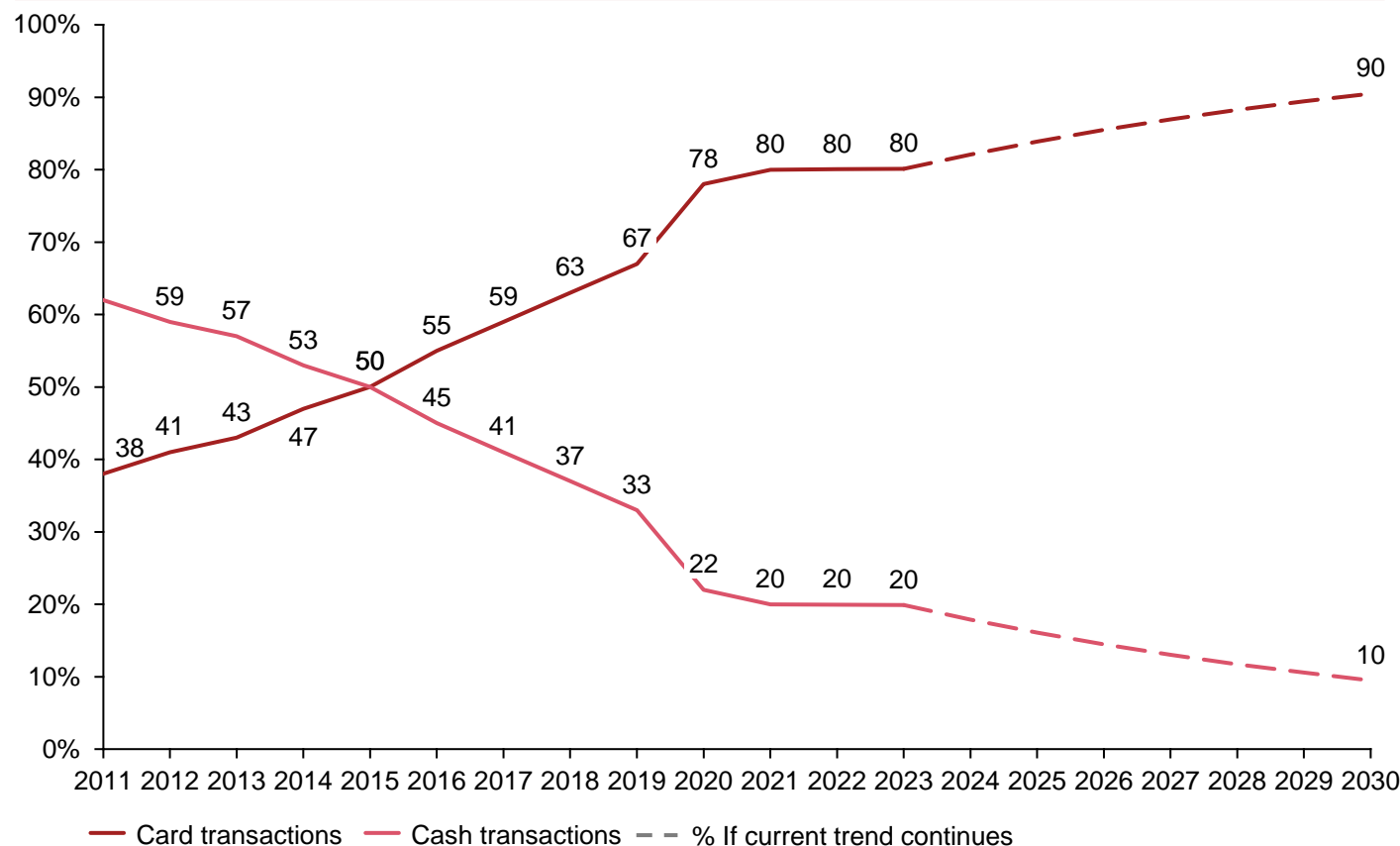




# In past years, the use of cash for point-of-sale transactions in the Netherlands has seen a sharp decline

## Decline in use of cash

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



## (Changing) preferences for payment methods

Factors such as the digitisation of services and shifts in consumer and retailer preferences<sup>1</sup> have contributed to the decline in cash use

**75%** of consumers prefer debit cards (incl. contactless) for point-of-sale ('PoS') transactions (2016: 53%)

**75%** of consumers over the age of 65 use debit cards for PoS transactions (2016: 44%)

**90%** of PoS debit card payments is contactless (2016: 18%)

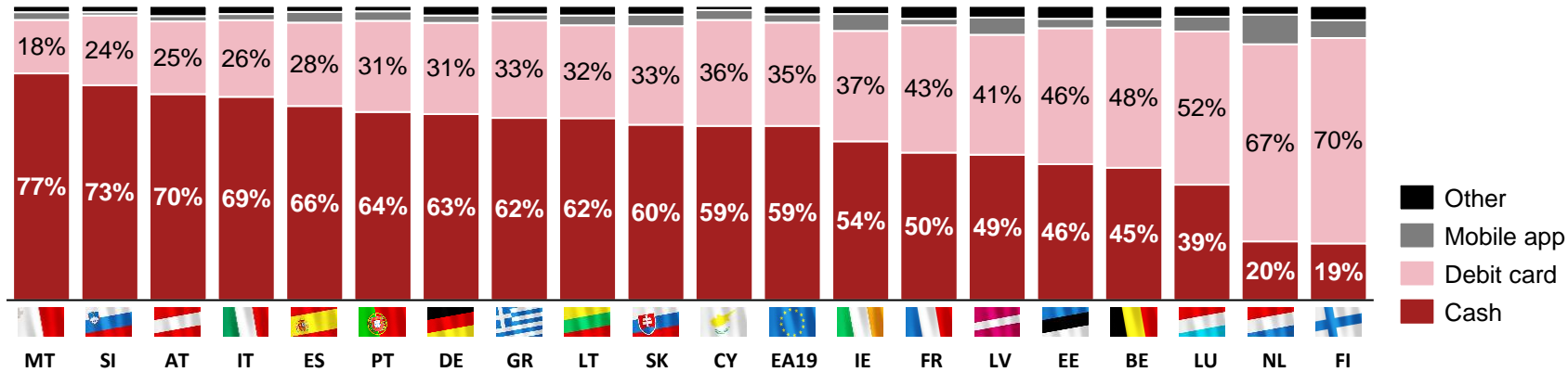
**61%** of peer-to-peer payments are settled electronically (2016: nil, the year 'Tikkie'<sup>2</sup> was introduced)

If the trend of the past 10 years continues, in 2030 10% of PoS transactions would be cash – equal to current levels in Sweden and Norway

# Scandinavian countries and the Netherlands are frontrunners in Europe in terms of the use of, and preference for, non-cash payments

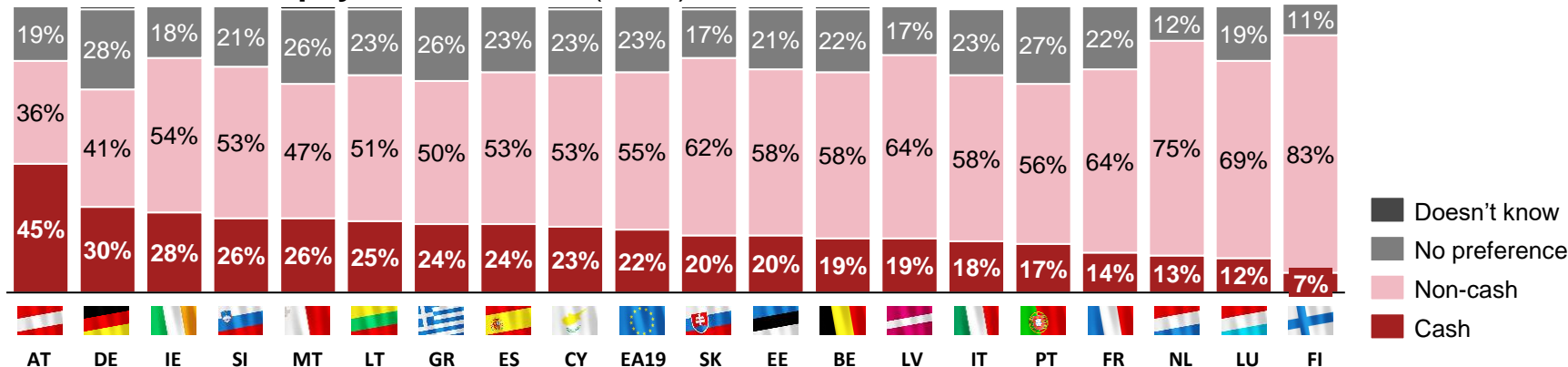
## Use of and preference for cash in the eurozone

Share of different payment methods used for PoS transactions<sup>1</sup> (2022)



- Finland and the Netherlands are the **euro-area frontrunners** in terms of the **use of electronic payment methods**, with only ~20% of transactions being cash
- Other Scandinavian (non-euro) countries **Sweden, Norway and Denmark** have similarly low cash usage levels but were not part of the ECB study

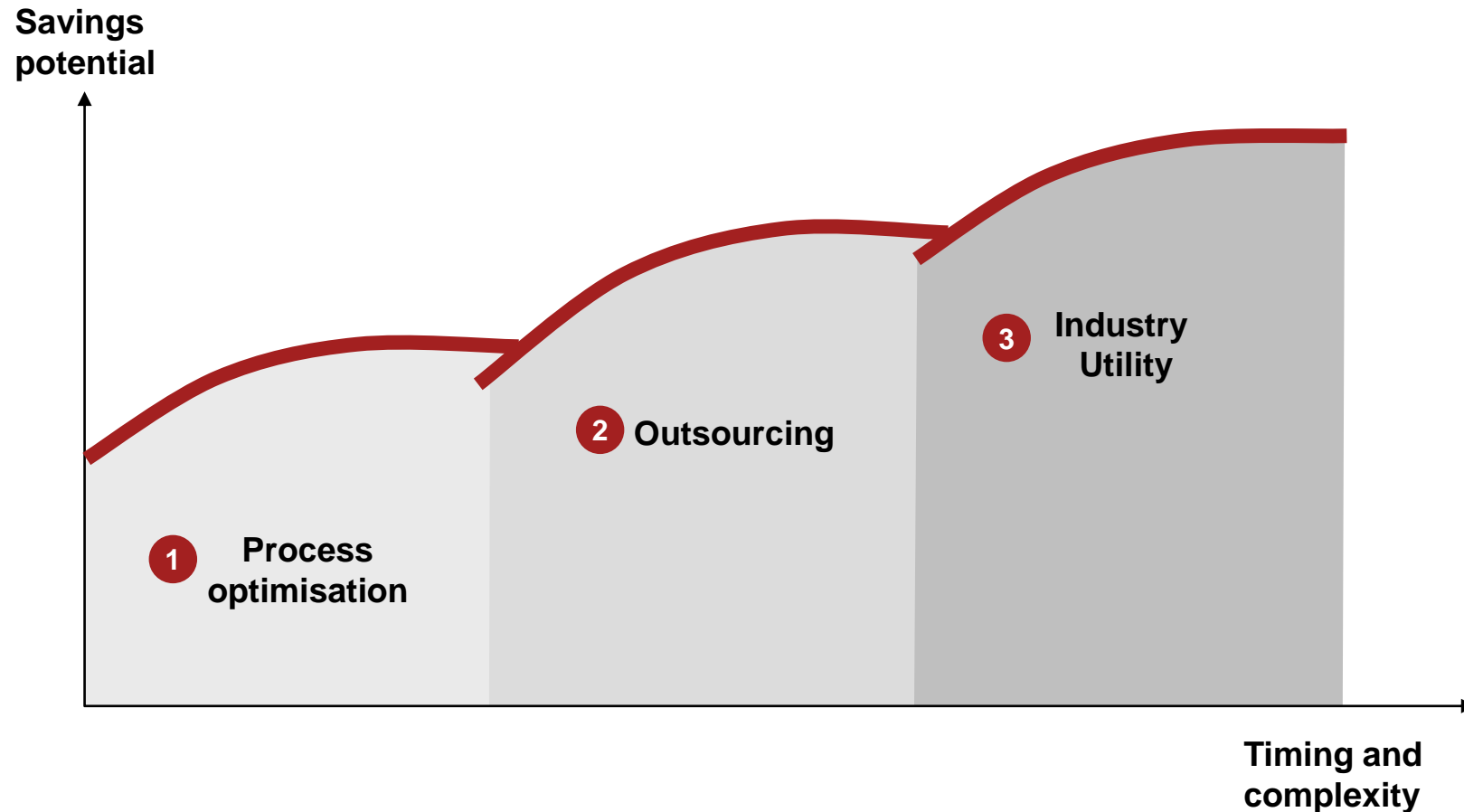
Preference for PoS payment method<sup>1</sup> (2022)



- Differences compared to other countries are large**, with most Euro-area countries using cash in more than 50% of transactions
- Consumer preferences are similar**; the majority of consumers consistently **prefers non-cash payments** – implying that cash use will **likely decline further in other countries** as well

# We see three 'waves' through which banks can reduce their cost of cash

## Three waves of cost reduction of cash operations

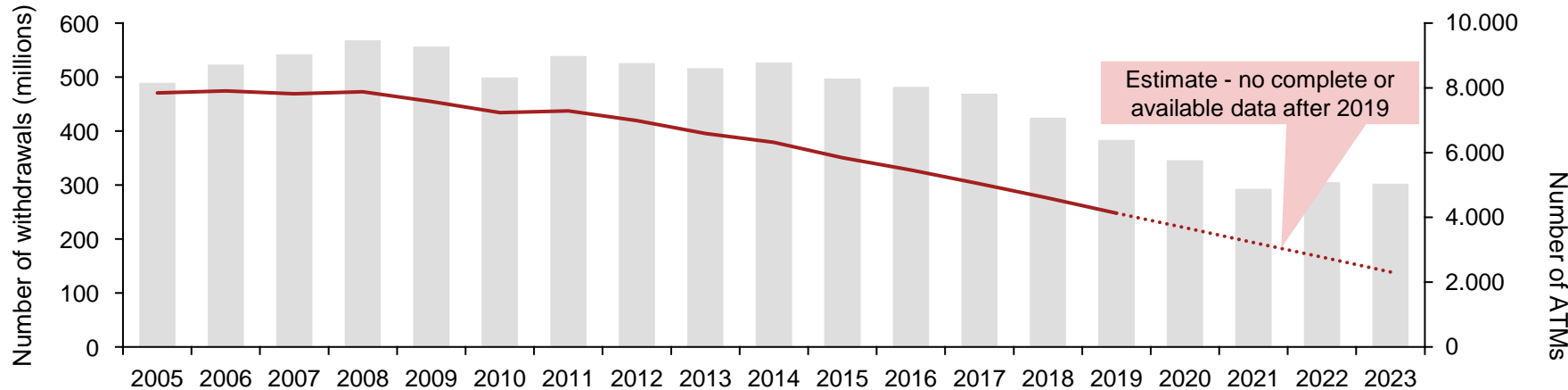


- **Operating the cash infrastructure** comes with relatively **high fixed costs** for the main players involved (e.g. banks / ATMs needing periodic servicing, retailers working the cash register daily)
- We see **three waves** through which banks can **reduce their cost of cash operations**:
  - 1 Process optimisation** of existing cash operations (e.g. optimization of ATM maintenance / servicing)
  - 2 Outsourcing** cash services to other parties with e.g. larger scale (nationally/internationally)
  - 3 Industry utility** – assigning one party to manage the cash infrastructure and provide services

# With the decline in usage, the number of ATMs for withdrawals and deposits has also decreased sharply

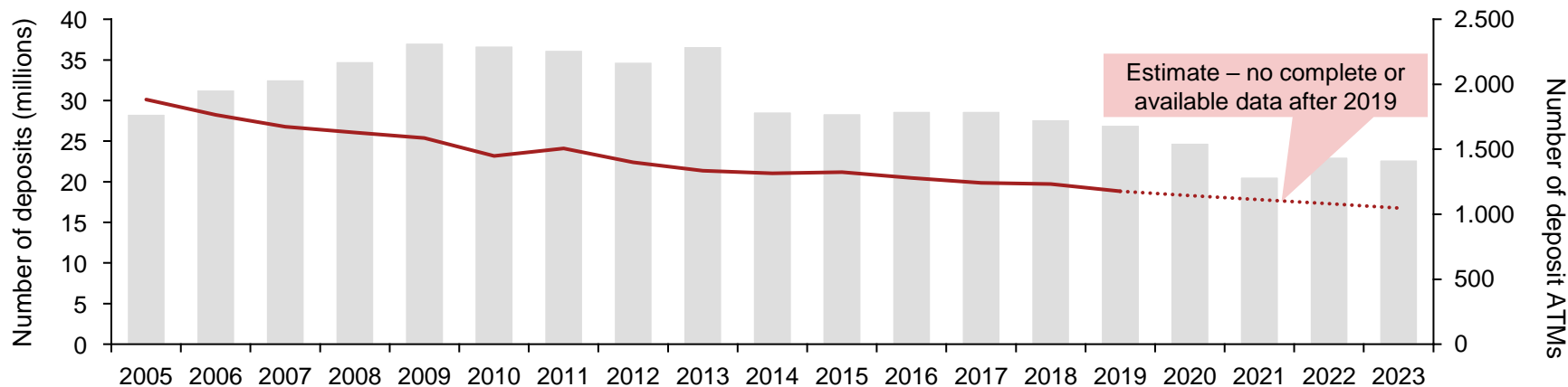
## Number and usage of ATMs in the Netherlands

### Number of ATMs and cash withdrawals in the Netherlands



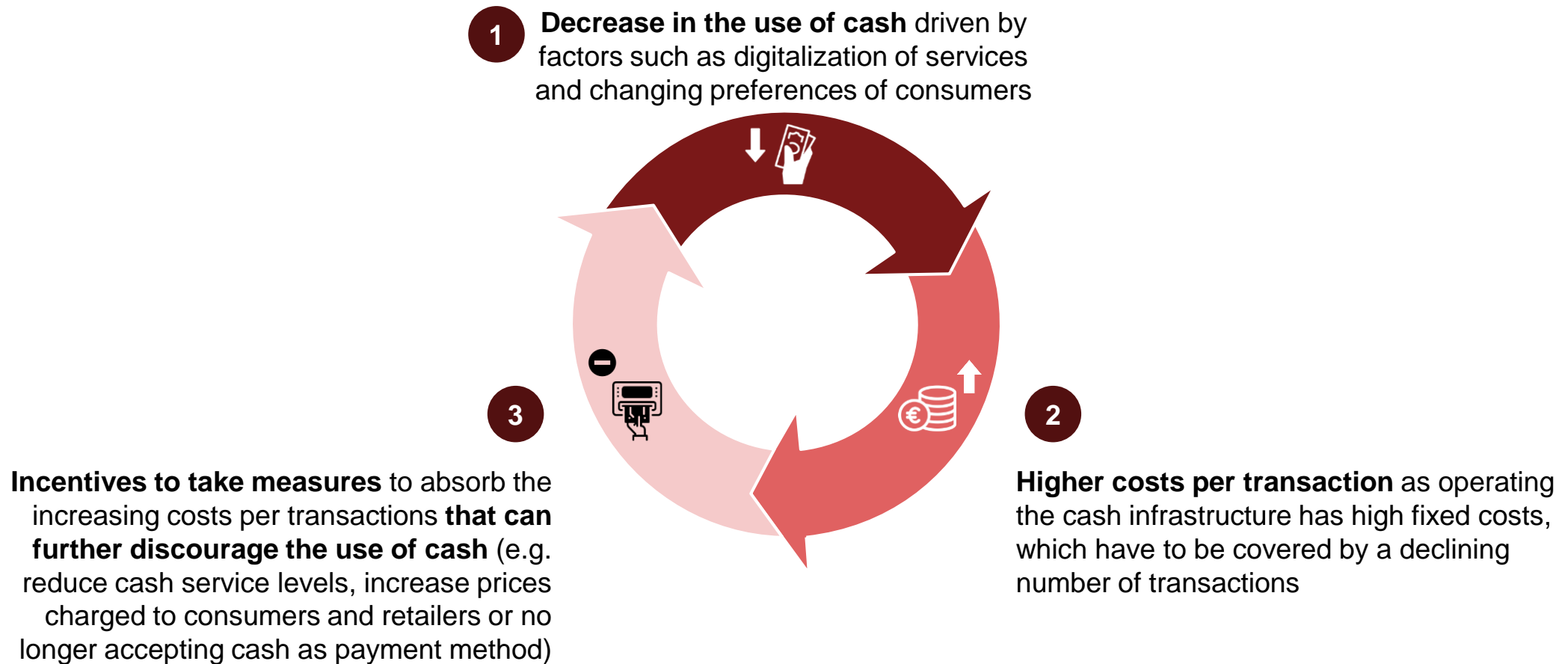
- The number of **cash withdrawals and deposits** in the Netherlands has been **declining for years**. Cash withdrawals declined by ~65% between 2013 and 2023
- The **number of both regular ATMs as well as deposit ATMs** decreased by ~40% between 2013 and 2023
- If the number of ATMs were to be kept constant, a further **decrease** in the number of **transactions would threaten** the **financial viability** of the ATM network

### Number of deposit ATMs and cash deposits in the Netherlands



# Decreasing use of cash leads to a vicious circle in which rising costs per transaction lead to measures that decrease the use of cash even further

## Vicious circle of decreasing cash use



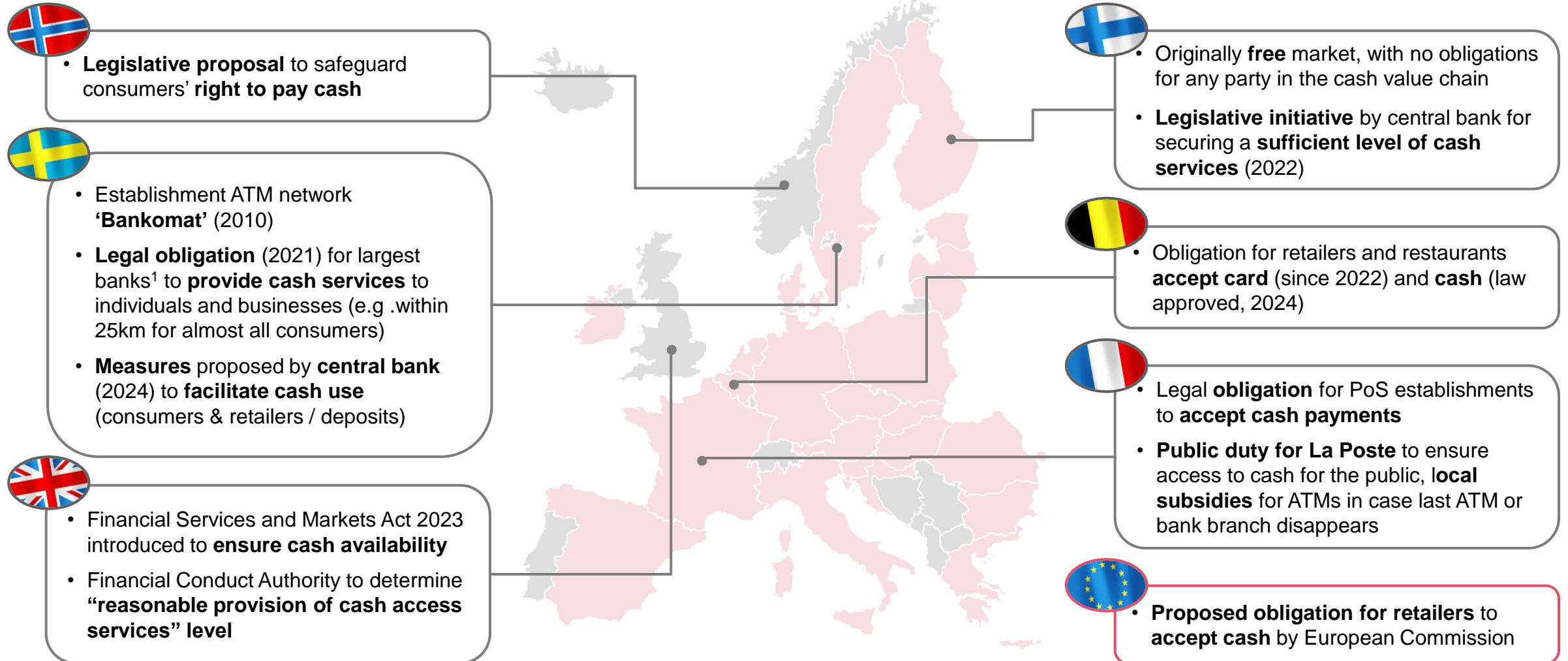
# Governments / central banks see a minimum level of cash services as socially desirable, and consider intervention

## Benefits and functions of cash making it an important payment method (ECB)<sup>1</sup>

-  **It ensures freedom and autonomy**
-  **It is legal tender**
-  **It ensures your privacy**
-  **It is inclusive** (e.g. socially vulnerable citizens, elderly or lower-income groups)
-  **It helps to keep track of expenses**
-  **It is fast**
-  **It is secure**
-  **It is a store of value**

# Measures have mainly been taken in Scandinavian countries; other countries will need solutions when cash use declines further

## Examples of adopted approaches in Europe



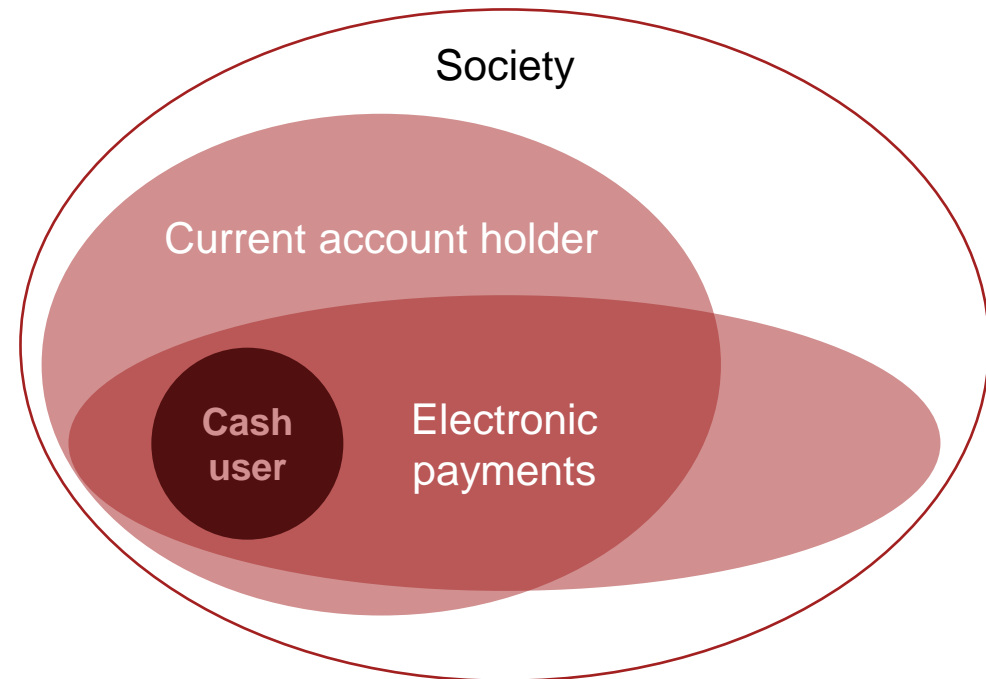


# Solving the problem that the market no longer provides the desired cash infrastructure requires a new sustainable funding model

## Market failure and proposed funding options

- **Market no longer provides** desired level of cash services ('missing market')
- **Cash infrastructure costs** (and prices) are largely determined by **service level requirements**
- **End users** are not willing to pay (higher) prices and increasingly choose not to use cash - **Incentives to discourage** use of **cash** are **minimized**
- Services are **not structurally loss-making** for any party ensuring a level playing field in the market
- **Need for a sustainable funding model** that prevents the **requirements from leading to (significantly) higher prices**

## Who is responsible for the cost of the cash infrastructure?



Besides the funding model, a party needs to be made responsible for providing the cash services, for which we see three options

## Cash market design options

	<div> <div>Least government intervention</div> <div></div> <div>Most government intervention</div> </div>			
<i>Model</i>	Voluntary agreements	Legal obligations	Nationwide Universal Cash Services provider	Government enterprise
<i>Description</i>	Voluntary agreements to maintain cash infrastructure - <b>unsustainable for the longer term</b>	<b>Payment account providers are legally obliged</b> to offer <b>cash services</b>	<b>One party assigned by government</b> as the nationwide <b>universal cash services provider</b>	<b>Government takes active role</b> in providing the <b>basic cash infrastructure</b>
<i>Key considerations</i>	(+) <b>ease of implementation</b> (no new regulation) (-) <b>not future-proof</b> as cash use declines	(+) relative ease of <b>implementation</b> (-) <b>complex to change and monitor</b> (large # of parties)	(+) <b>future-proof</b> (multiple funding options, potential future government ownership) (-) larger implementation <b>effort</b>	(+) high government <b>influence on quality provided</b> (-) <b>lower incentives for efficiency</b>

# Key take aways

- Use of cash is expected to further decline
- Cash services are a limited differentiator for banks – focus on cost efficiency
- Key question on the long term is who is responsible for the cash infrastructure
- Threat and opportunity for cash service providers
- Regulators will eventually step in



# Thank you

---

**strategyand.pwc.com**

© 2024 PwC. All rights reserved.

PwC refers to the PwC network and/or one or more of its member firms, each of which is a separate legal entity. Please see [pwc.com/structure](https://www.pwc.com/structure) for further details.

‘PwC’ is the brand under which PricewaterhouseCoopers Accountants N.V. (Chamber of Commerce 34180285), PricewaterhouseCoopers Belastingadviseurs N.V. (Chamber of Commerce 34180284), PricewaterhouseCoopers Advisory N.V. (Chamber of Commerce 34180287), PricewaterhouseCoopers Compliance Services B.V. (Chamber of Commerce 51414406), PricewaterhouseCoopers Pensions, Actuarial & Insurance Services B.V. (Chamber of Commerce 54226368), PricewaterhouseCoopers B.V. (Chamber of Commerce 34180289) and other companies operate and provide services. These services are governed by General Terms and Conditions (‘algemene voorwaarden’), which include provisions regarding our liability. Purchases by these companies are governed by General Terms and Conditions of Purchase (‘algemene inkoopvoorwaarden’). At [www.pwc.nl](https://www.pwc.nl) more detailed information on these companies is available, including these General Terms and Conditions and the General Terms and Conditions of Purchase, which have also been filed at the Amsterdam Chamber of Commerce.

**Disclaimer:** This content is general information purposes only, and should not be used as a substitute for consultation with professional advisors.