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# **NEXUS BETWEEN PAYMENT SYSTEMS AND FINANCIAL INCLUSION IN MACEDONIA**

# Outline

**I. Payment infrastructure**

**II. Cashless payments**

**III. E-commerce and financial inclusion**

**IV. Nexus between payment infrastructure and financial inclusion**

**V. What is being done to support financial inclusion?**

**VI. New technologies and their impact on payment systems and financial inclusion**

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## Outline

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# **I. Payment infrastructure**

# Payment Infrastructure in Macedonia

## Three payment systems

- **Macedonian RTGS system – MIPS (Macedonian Interbank Payment System)**
- **Clearing House KIBS – retail credit transfers**
- **Clearing House CASYS – domestic payment card scheme**
- **International payment card schemes (Visa, Mastercard, Diners, American Express)**



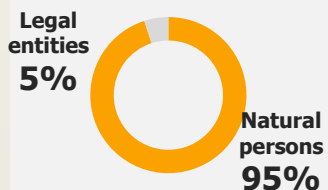
## Payment service providers

- **Banks**
- **Non-bank payment providers**
- **NBRM**
- **Treasuries of the Ministry of Finance and Health Insurance Fund**



# Payment Infrastructure in Macedonia

## Accounts



Transaction  
accounts  
3,86 M

## For reports

Natural persons - 19%  
Legal entities - 32%

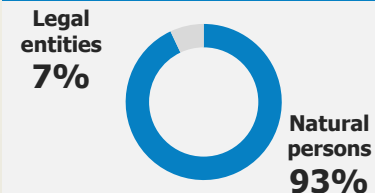
Percentage share in the  
total number of  
transaction accounts

## For e-payments

Natural persons - 7%  
Legal entities - 29%

Percentage share in  
the total number of  
transaction accounts

## Deponents



Total deponents  
1,75 M  
On average 2 accounts  
for each deponent

## Number of payment cards

2017 - 1,82 M  
2016 - 1,82 M

## Contact / contactless

2017 - 498 K  
2016 - 253 K

## Internet

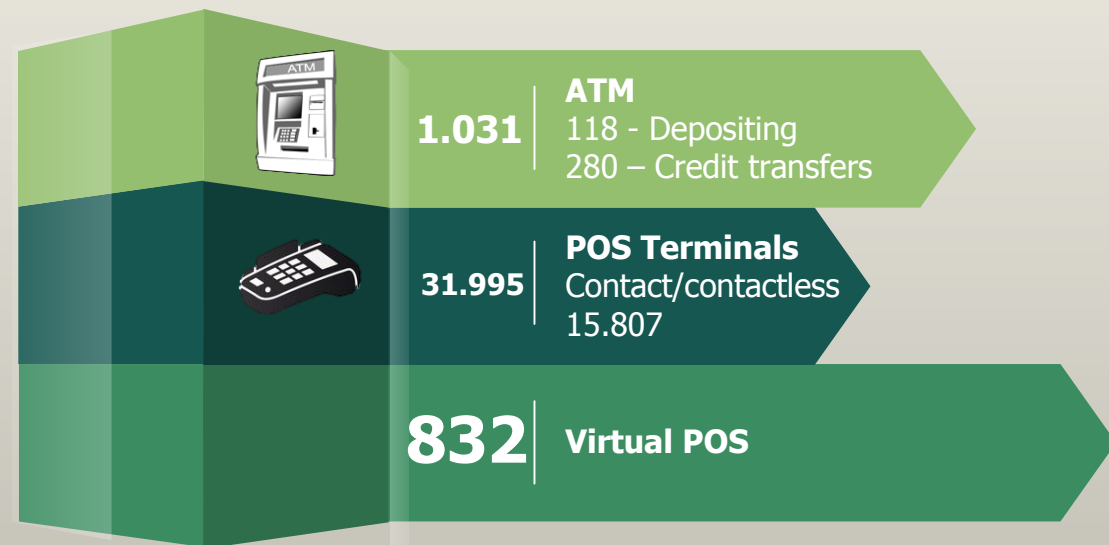
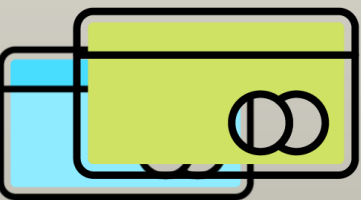
2017 - 19,3 K  
2016 - 18,7 K

## Brand

Visa - 59 %  
MasterCard - 37 %

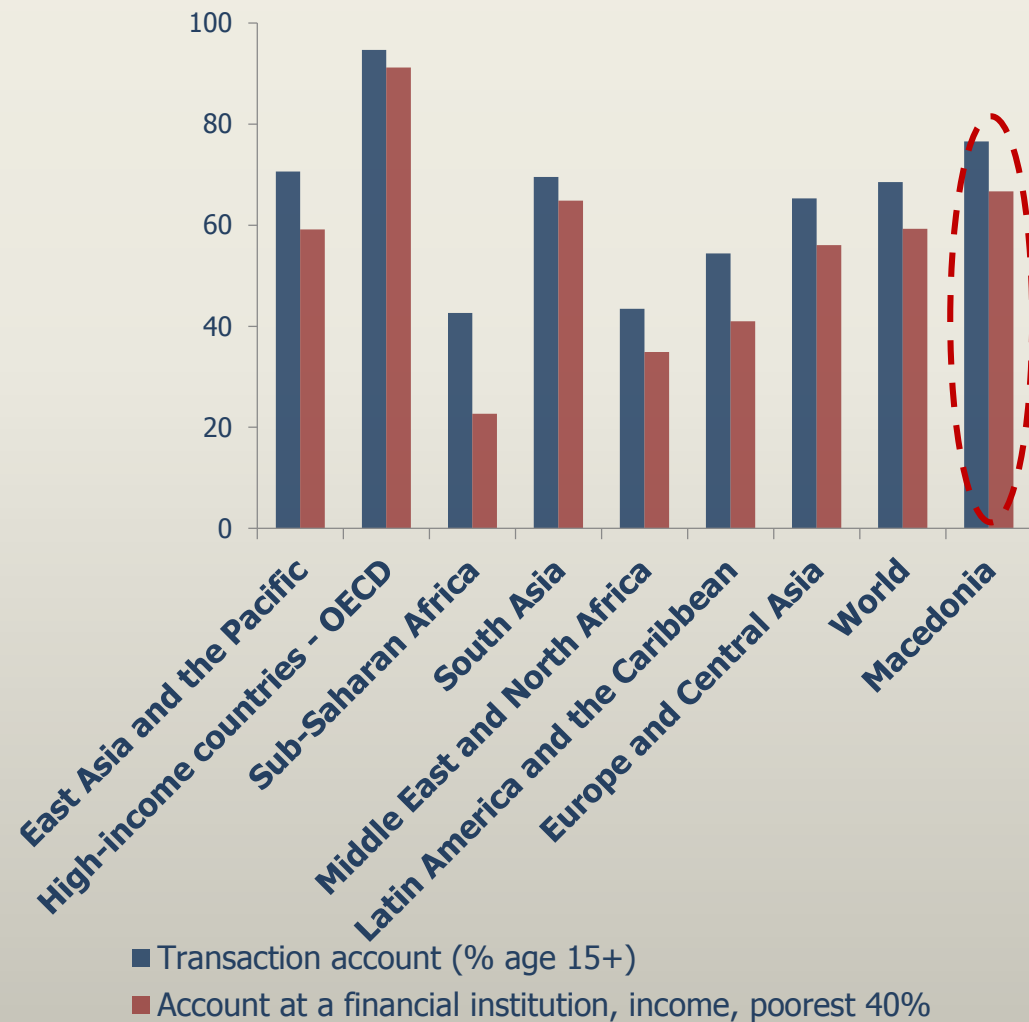
## Function

Debit - 79 %  
Credit - 21 %



# Account availability

Availability of an account  
(%, age 15+), 2017

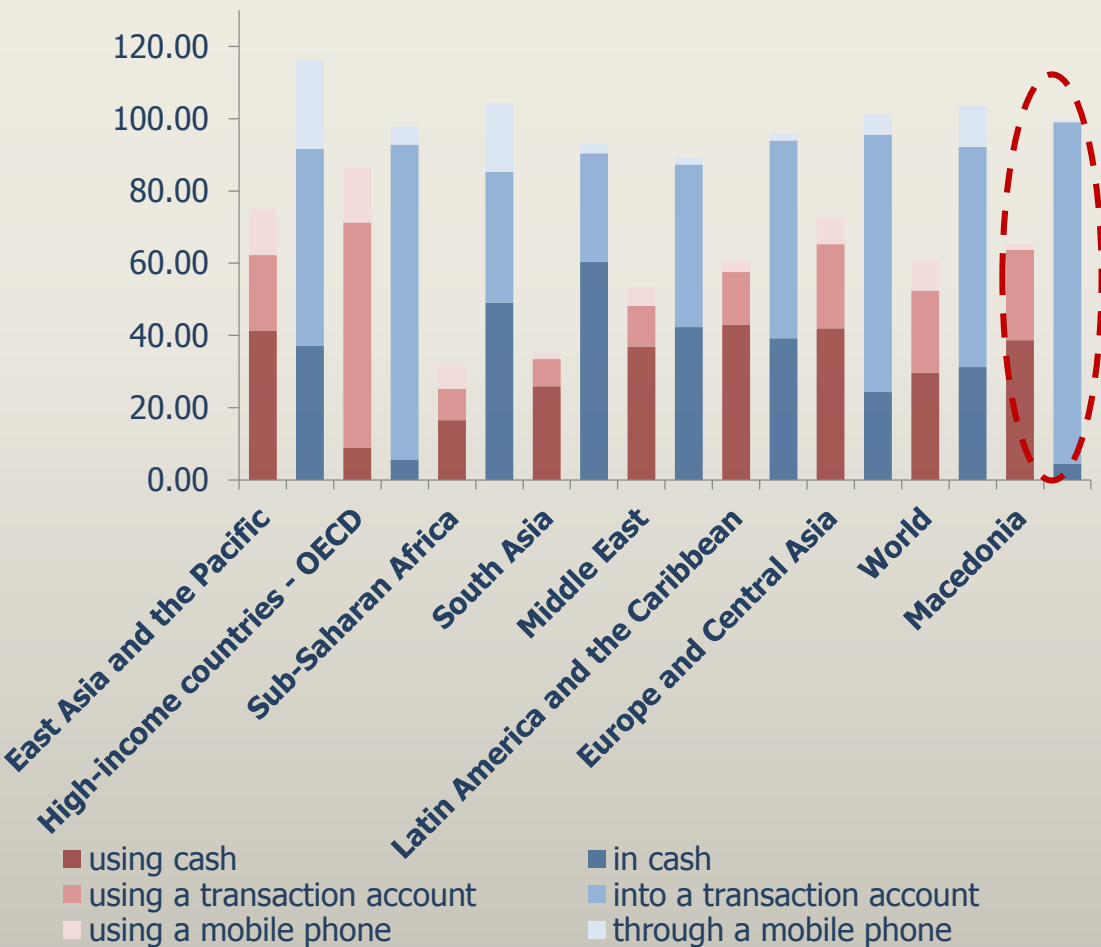


**Most Macedonians have a payment account  
(77% of respondents, and over 67% of the  
poorest income respondents)**



# Use of payment account

The method applied for payment of utility bills and receiving wages (% of applied method, age 15+) 2017



Most Macedonians receive wages on a payment account (similar to high income countries), but prefer using cash for paying bills (similar to Europe and Central Asia).



**Note:** categories achieve more than 100% due to the use of more than one method.

Source: **Global Findex database**

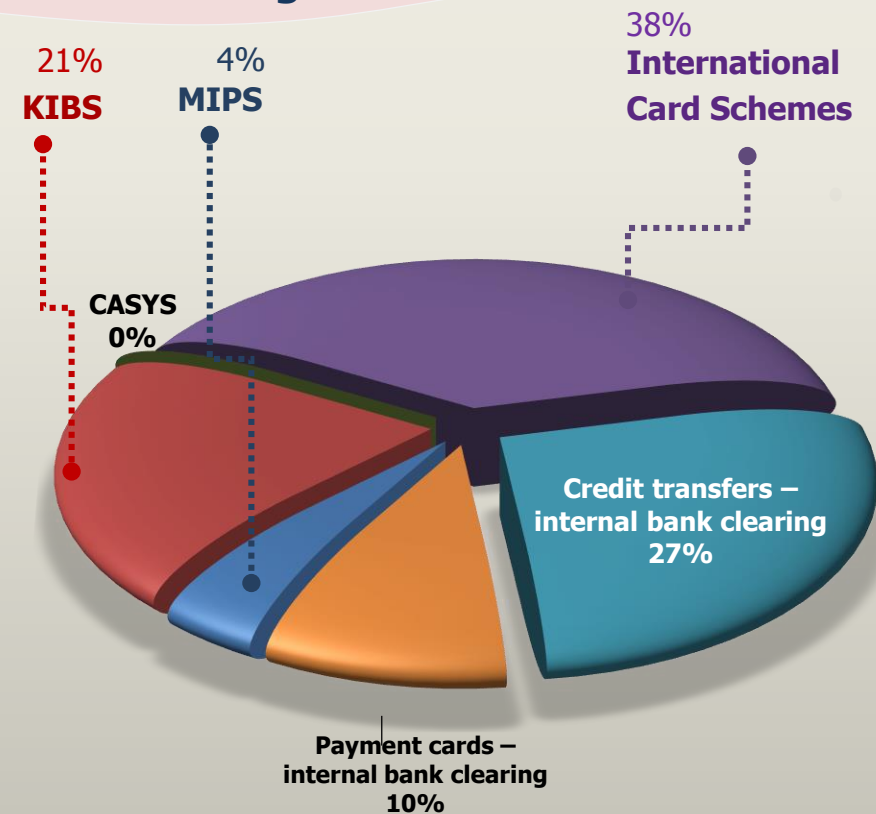
# Outline

## **II. Cashless payments**

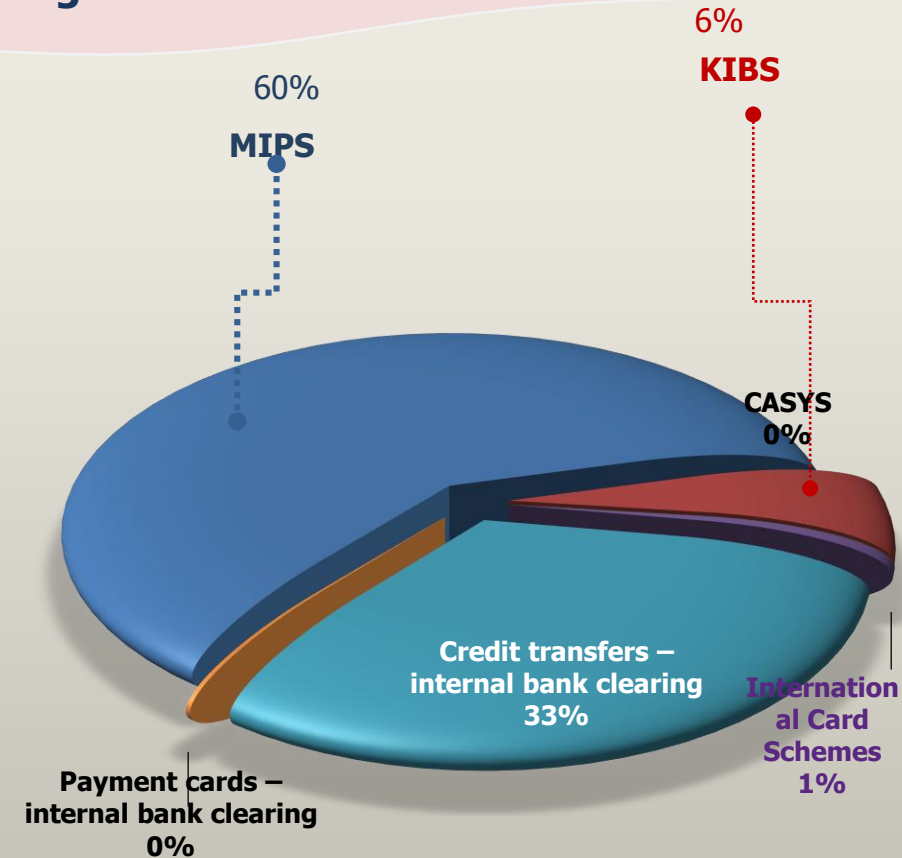


# Cashless payments in 2017

In terms of number of payments, international card schemes have the largest share in total payments in the country, followed by internal bank clearing and KIBS.



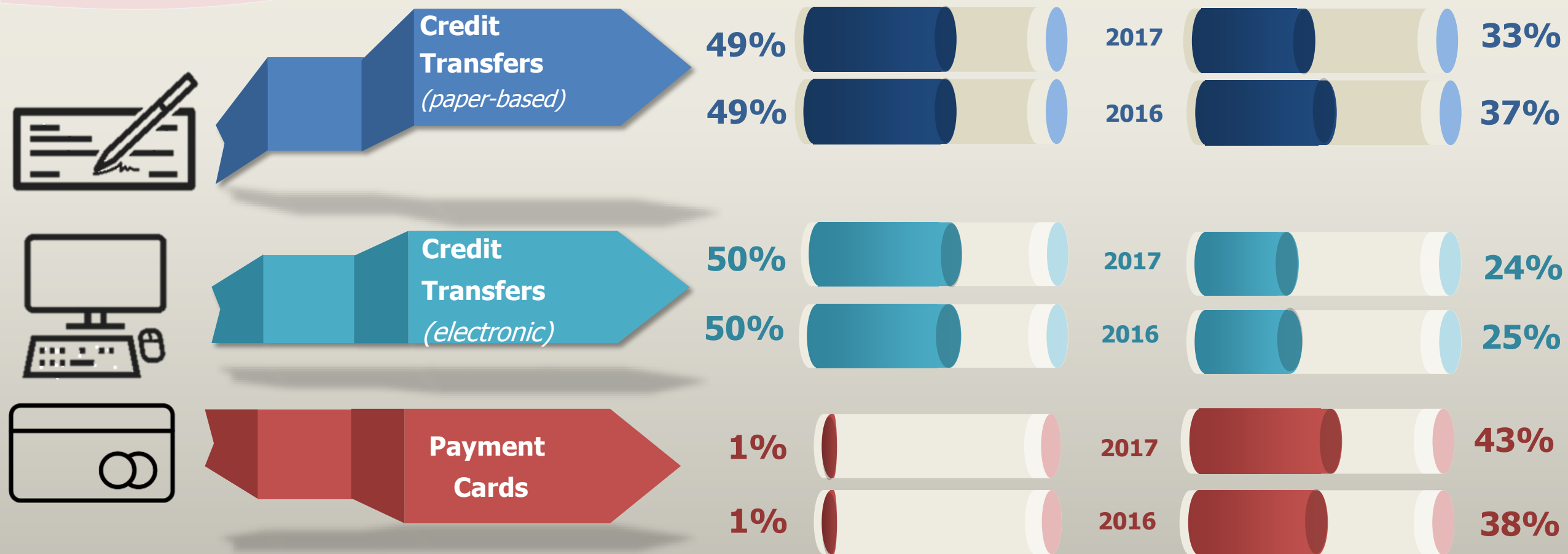
As for the value of payments, MIPS dominates in total payments in the country, followed by internal bank clearing.



# Use of payment instruments

In terms of value, credit transfers dominate with 99% in total value of payments.

In terms of number, payments initiated by using payments card are increasing their share in total payments (43% in 2017).



# Credit transfer initiation methods in 2017

Paper-based

Electronic

Paper-based

Electronic

49%



51%

Share in total number of credit transfers for each group

80%



20%

Legal entities

Natural Persons

# Electronic credit transfers initiation in 2017

Share in total number of credit transfers  
for each group

**Personal Computer**



**Mobile Device**



**ATM**



99,9%

0,01%



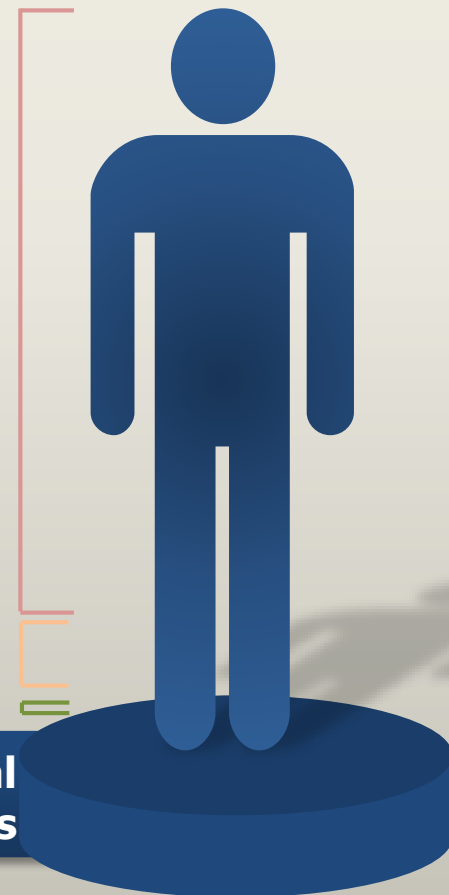
**Legal  
entities**

92%

7%

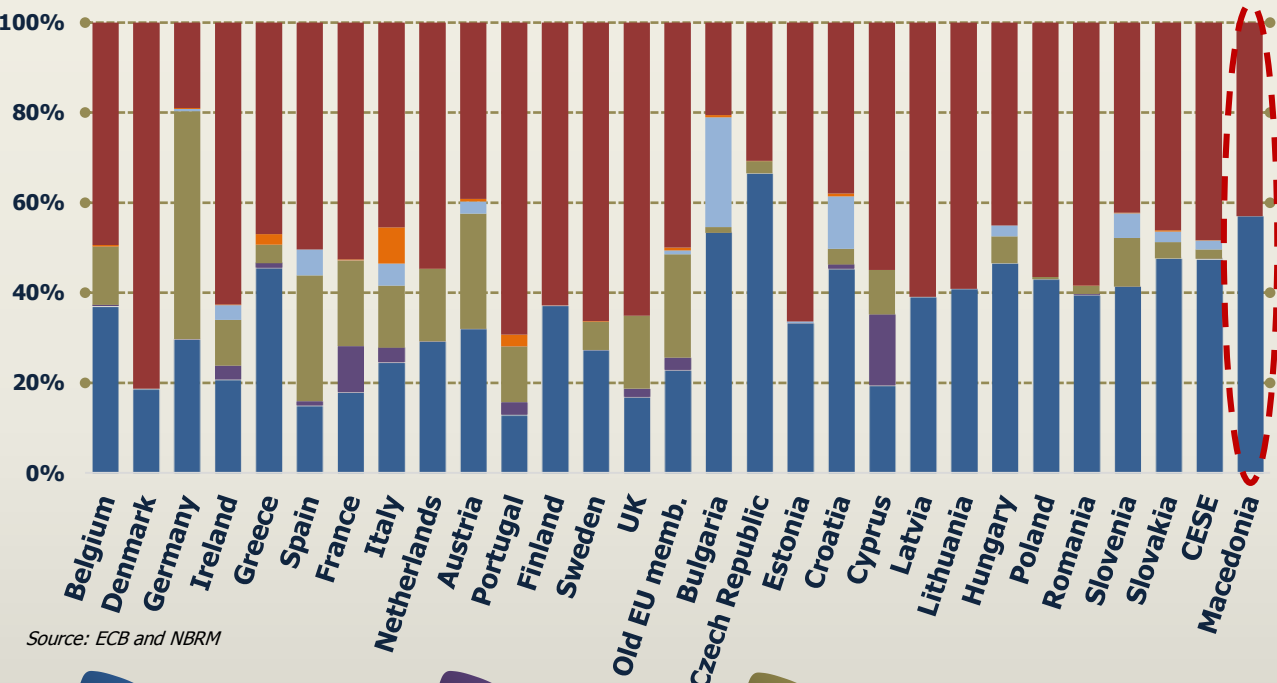
1%

**Natural  
Persons**

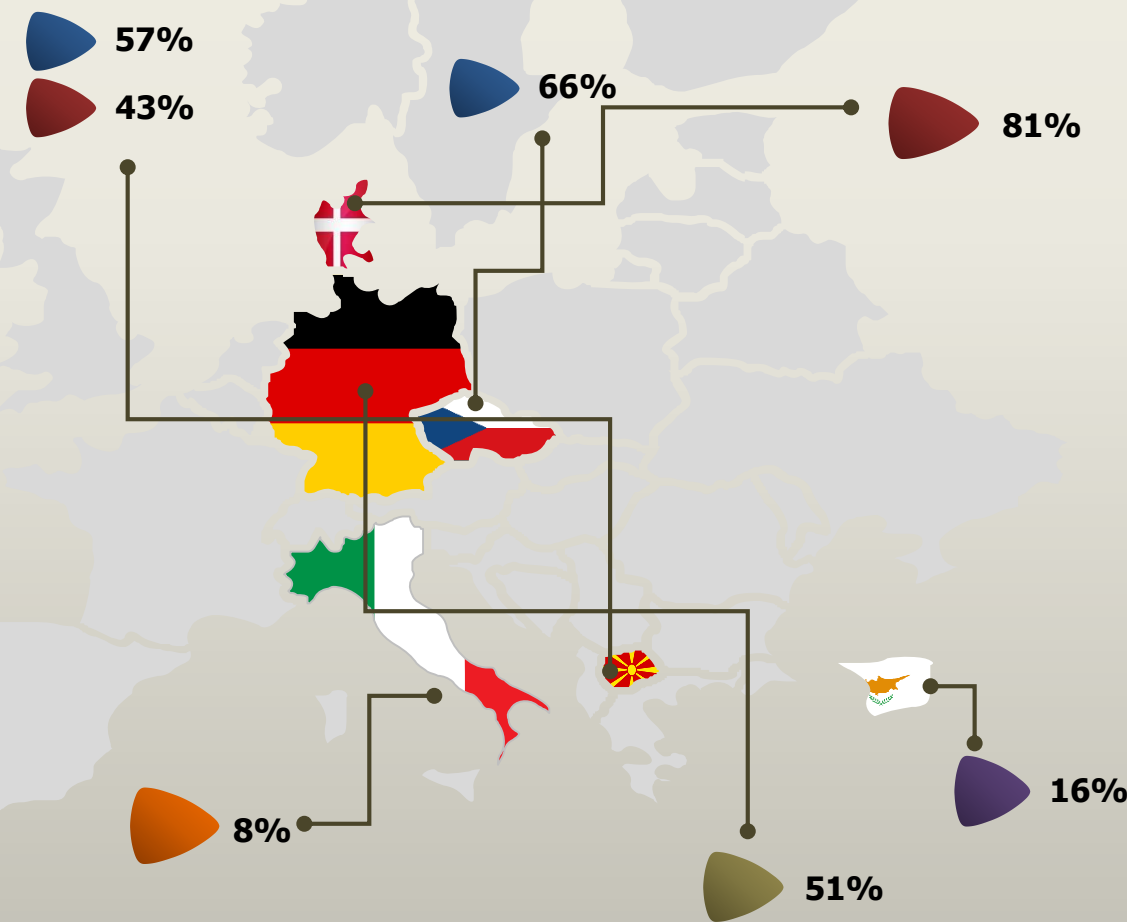


# Use of payment instruments in Europe

Share in total number of payments (%)



The highest use of a specific payment instrument in Europe



Source: ECB and NBRM

Payment cards and credit transfers are the most popular instruments in Europe. In comparative context, Macedonians use payment cards less frequently than payment service users in EU (share of 43% of card payments in total payments in Macedonia in 2017 vis-à-vis 50% in old EU members and 48% in new EU members in 2016).



# Credit transfers in Europe

## Countries with highest share of electronic credit transfers

*Estonia* - **99,6%**  
*Ireland* - **99,2%**  
*Czech R.* - **98,8%**



### Old EU members

#### Paper-based



#### Electronic

## Countries with highest share of paper-based credit transfers

*Macedonia* - **57,8%**  
*Italy* - **54,0%**  
*Bulgaria* - **46,5%**



### New EU members

#### Paper-based



#### Electronic

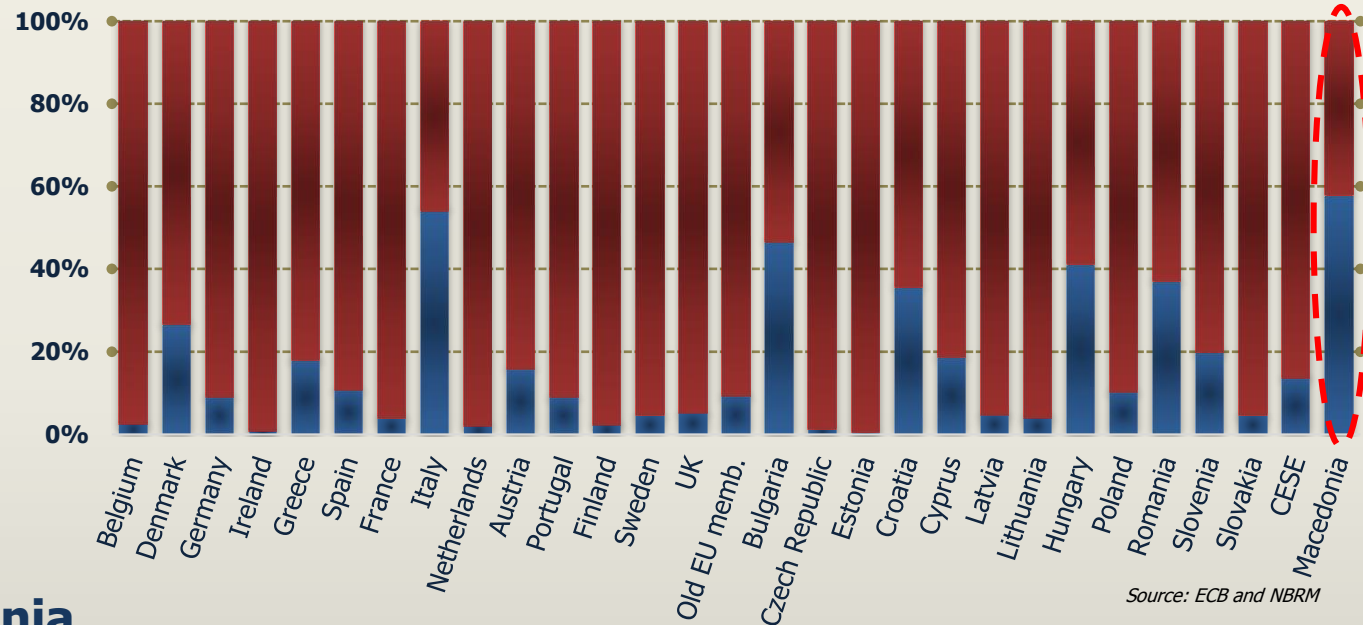
### Macedonia

#### Paper-based



#### Electronic

## Share in total number of transactions with credit transfer (in %)

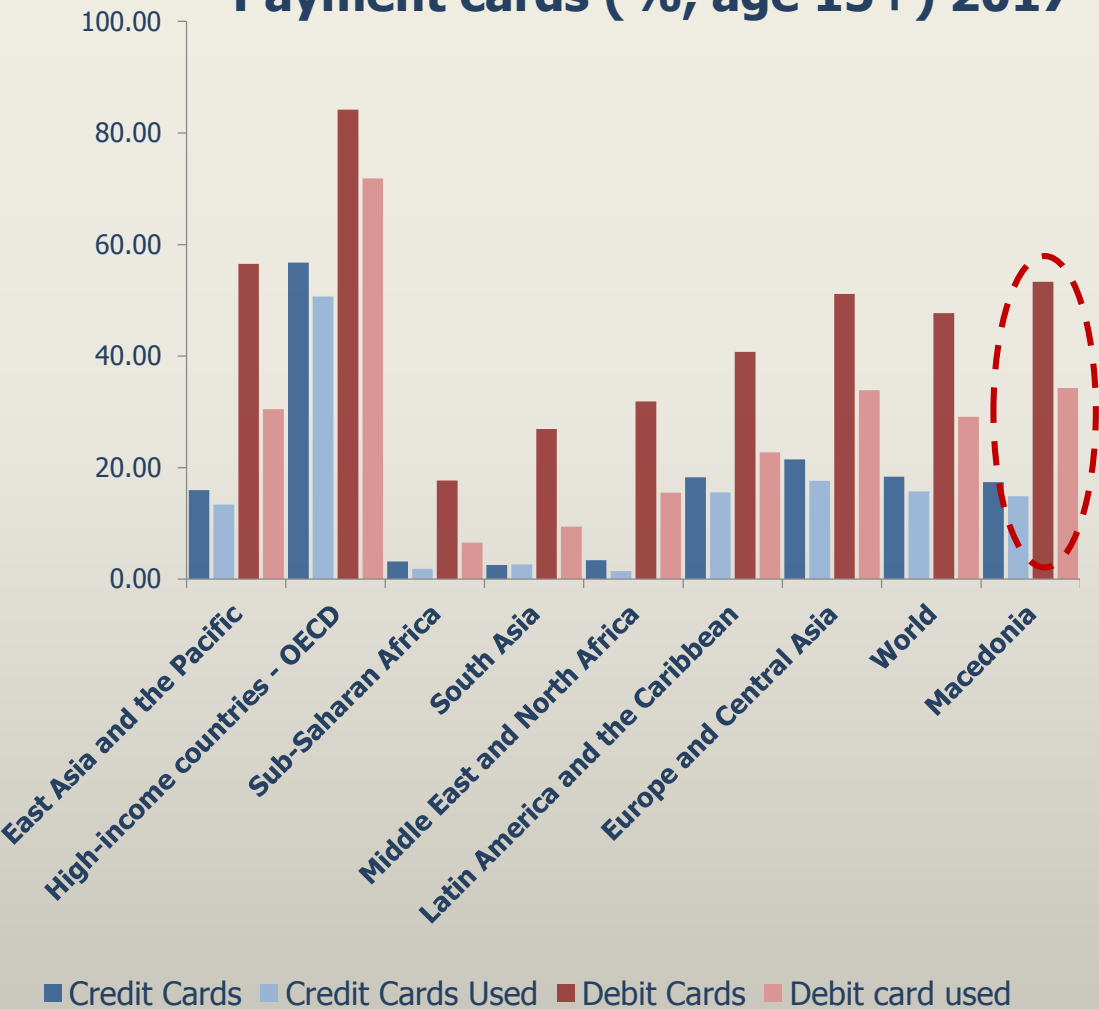


Source: ECB and NBRM

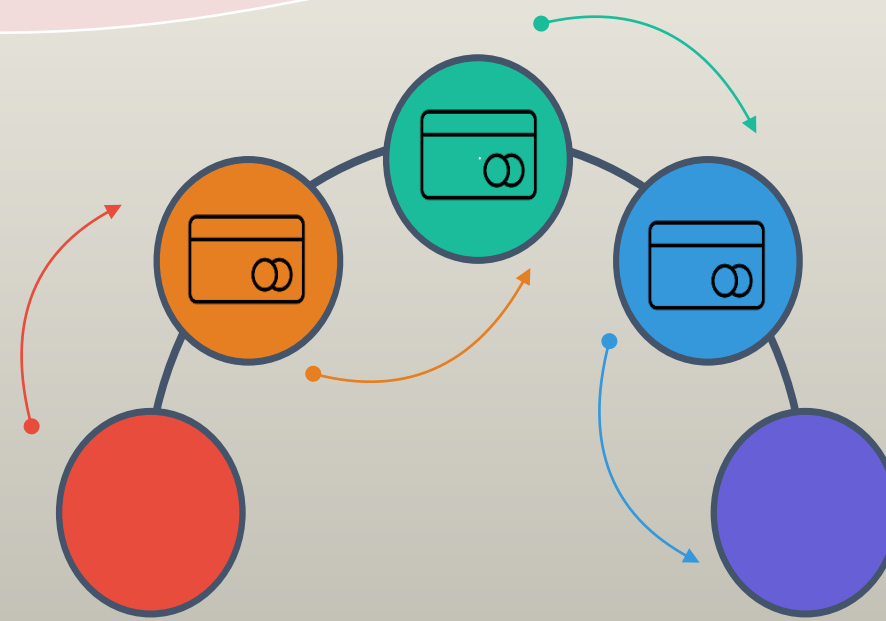
**Macedonians still more frequently go to bank counters to initiate credit transfers than payment service users in Europe. Similar payment habits have Italians and Bulgarians.**

# Payment cards availability

**Payment cards (% , age 15+) 2017**



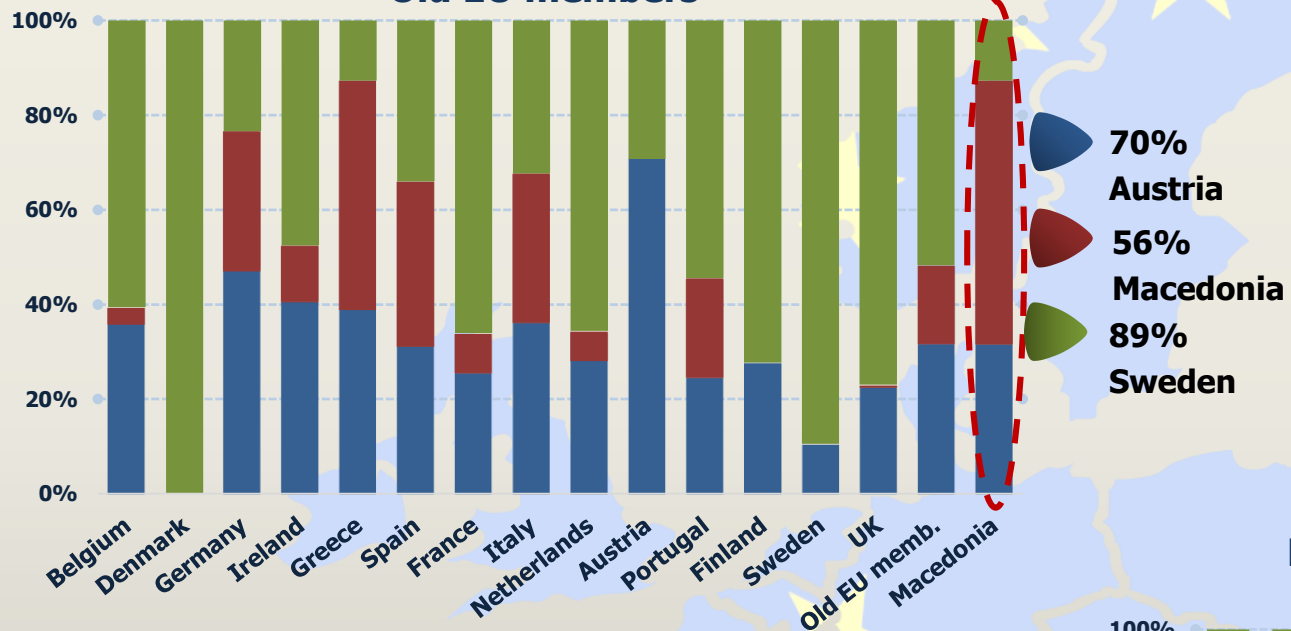
**Over 50% of Macedonians have debit cards and around 20% possess credit cards, which is similar to the world and Europe and Central Asia averages; albeit lagging behind high-income countries.**



# Use of payment cards in Europe

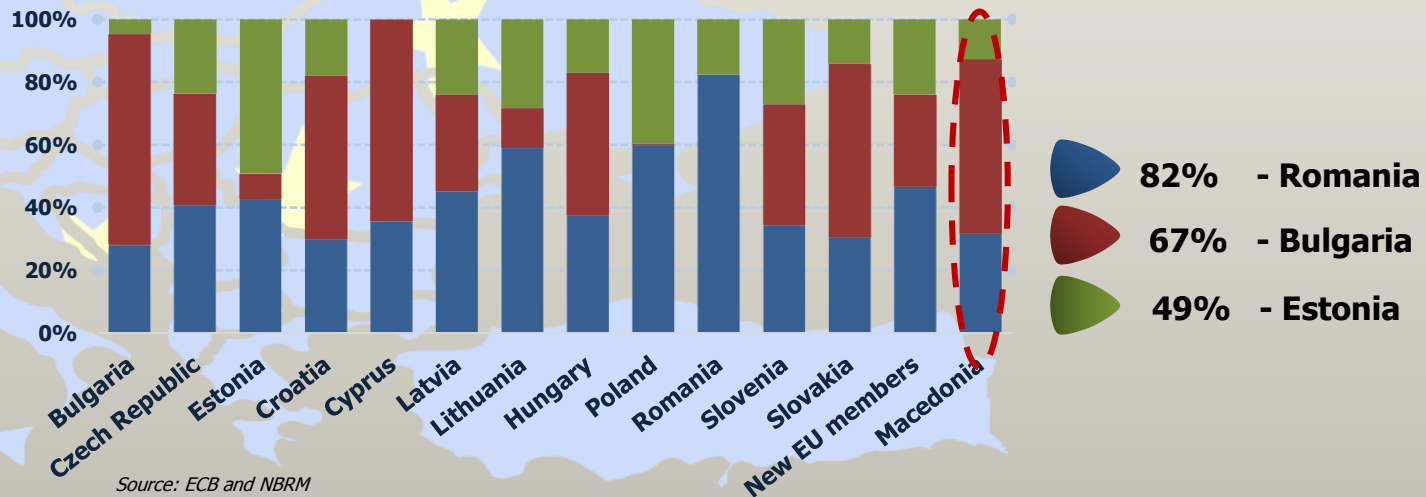
Share in total value

## Old EU members



Macedonians use payment cards mainly for withdrawing cash. They are like Greeks in comparative context with the old EU member states and similar to Slovaks and Croats among the new EU member states.

## New EU members



 Cash - ATMs
  Cash - OTC and POS
  trade

Source: ECB and NBRM

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### **III. E-commerce and financial inclusion**

# E-commerce and financial inclusion

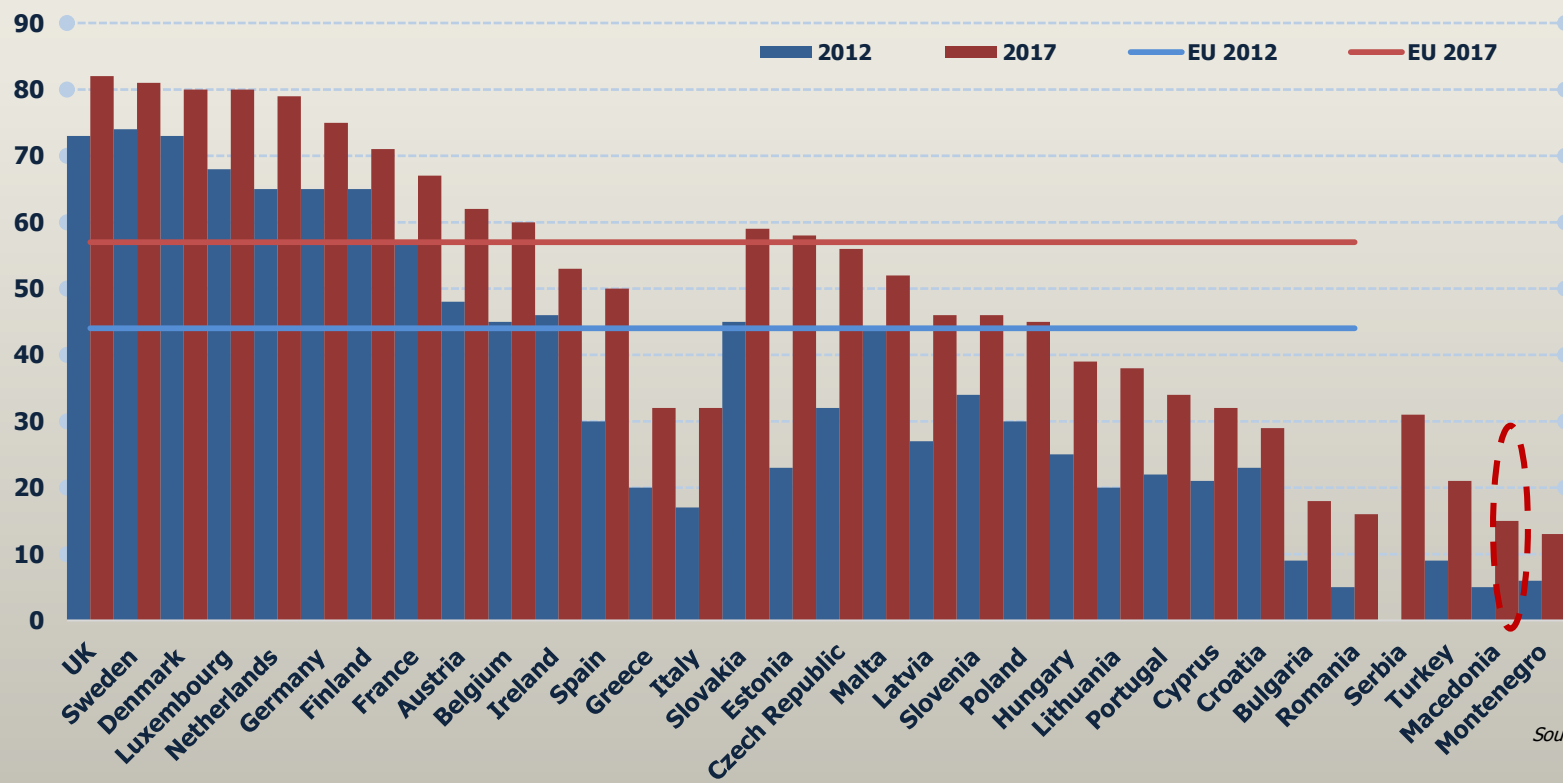
**Innovative e-commerce solutions have the potential to positively influence the financial inclusion via changing customer behavior with regards to moving away from cash.**





# Online shopping

In the EU-28, individuals who shopped online increased by 13 p.p. during the last five years and reached 57% in 2017. In Macedonia, only 15% of individuals shopped online in 2017 which is an increase of 5 p.p. during the last five years; albeit, Macedonia lags slightly behind the EU-28 in terms of proportion of individuals who used internet in 2017 (76% in Macedonia vis-à-vis 85% in the EU-28).

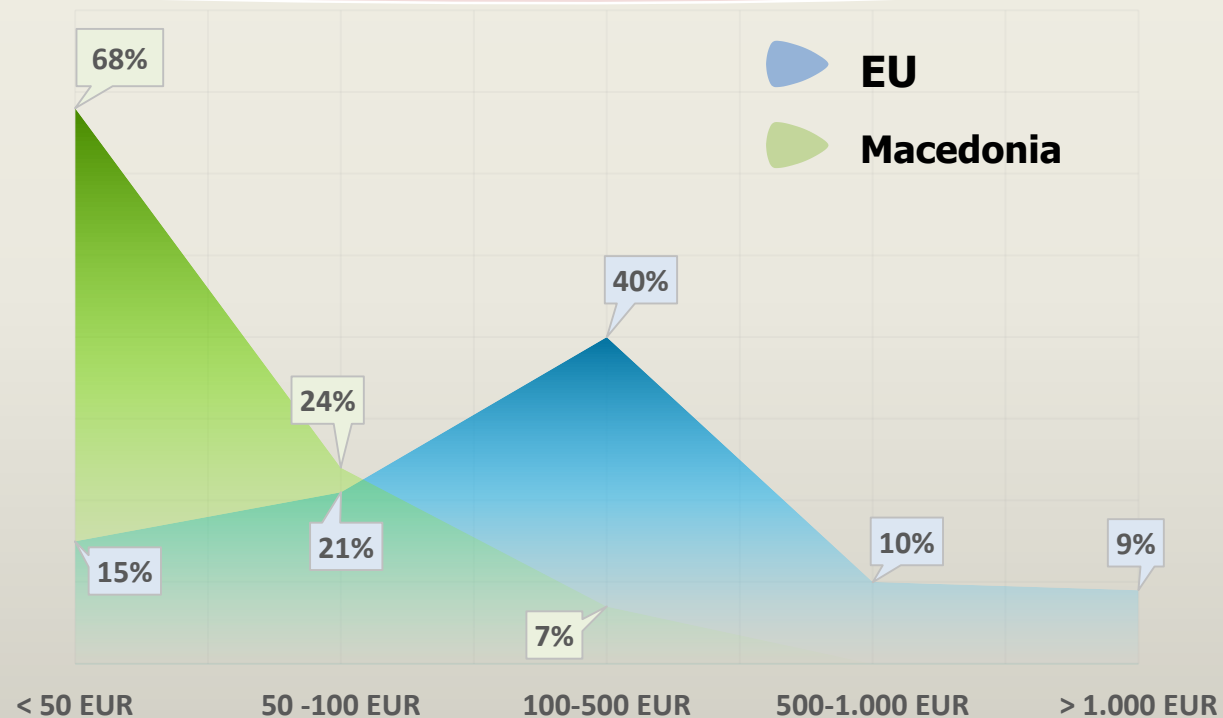


Source: Eurostat



# Online shopping frequency

Macedonians buy online less frequently and spend less money in comparison with the EU shoppers.



EU

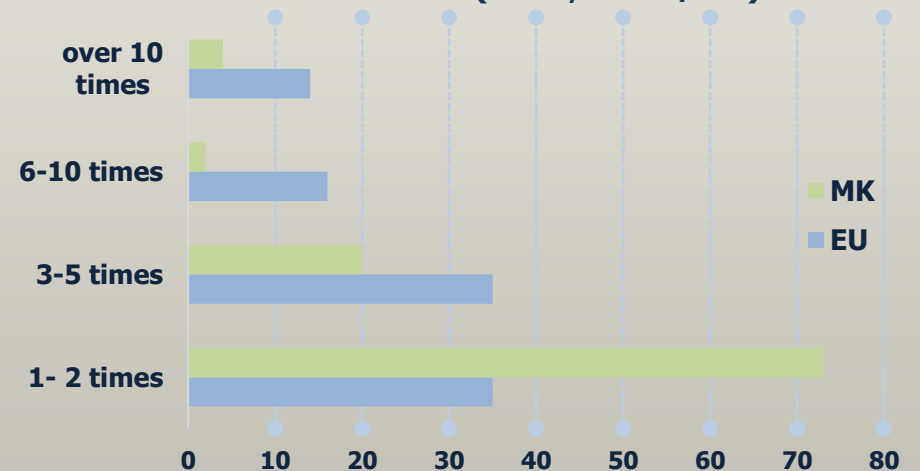
40%

Macedonia

68%

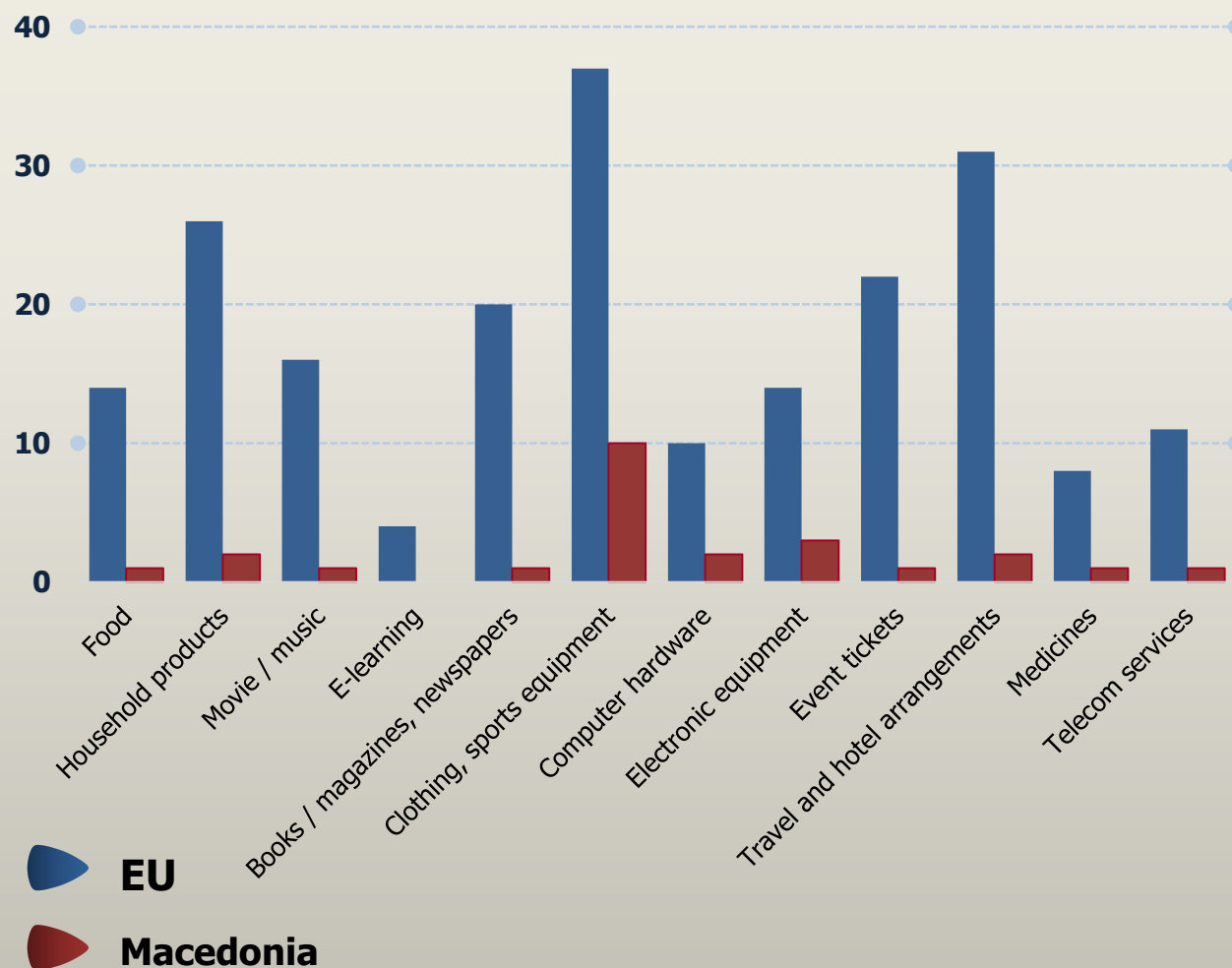


Number of times people shopped online during the last three months (2017, % EY/MK)

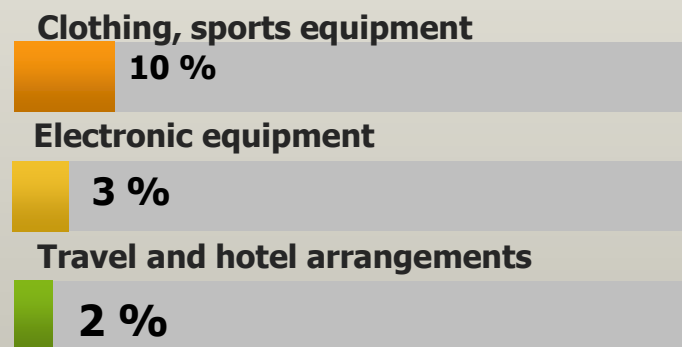
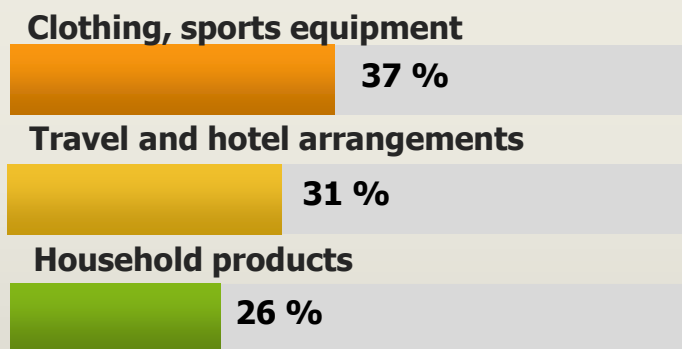


# Online purchases

**Clothes and sport goods are the most popular online purchases among Macednians, while the EU shoppers bought more diversified goods and services.**

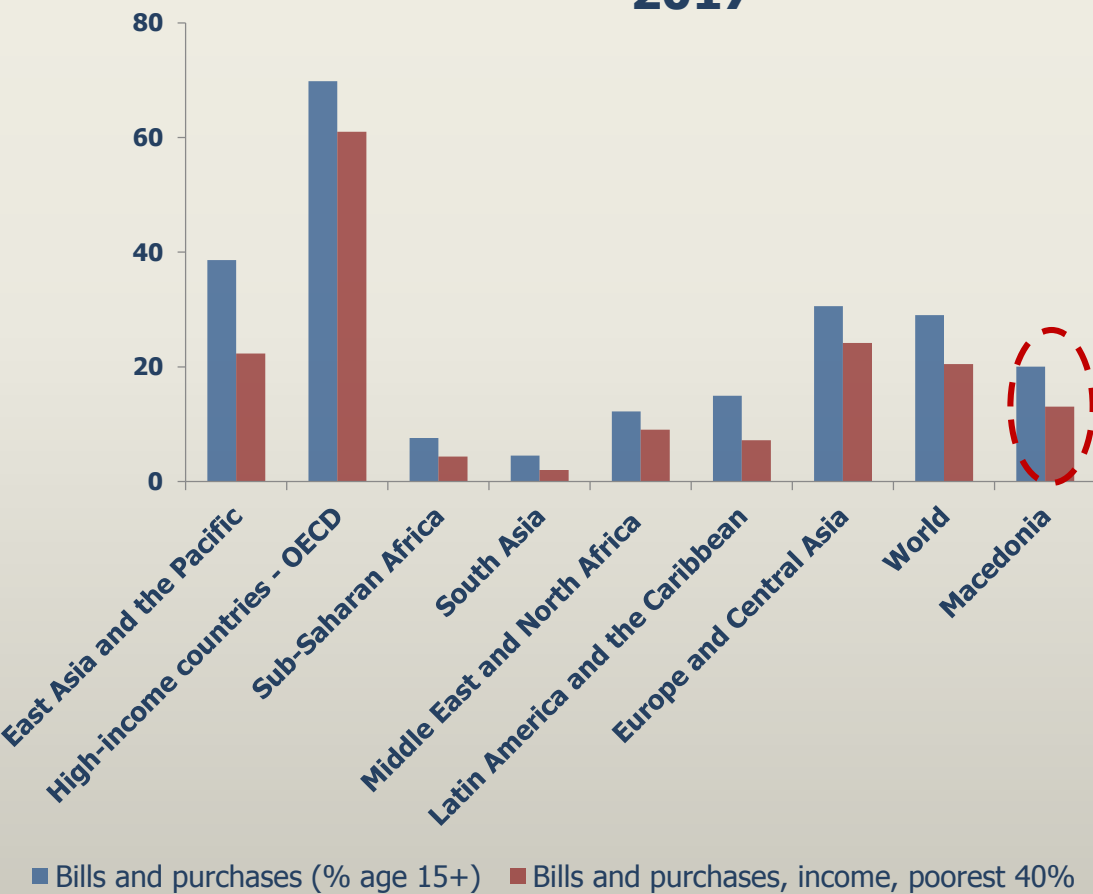


## Top 3 purchases in the EU and Macedonia in 2017

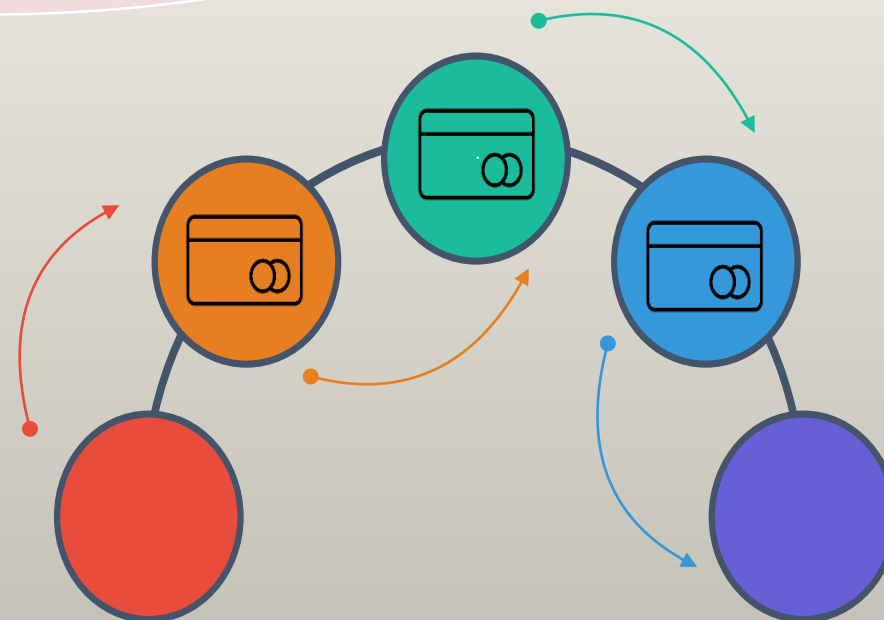


# Online payments

Online payments (% age 15+)  
2017



Macedonians lag substantially behind high income countries in terms of paying bills online and purchasing online.



Source: Global Index

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# **IV. Nexus between payment infrastructure and financial inclusion**



# Payment infrastructure and financial inclusion in Macedonia

**Current payment infrastructure in Macedonia supports financial inclusion, but has to be developed further to boost the digital payments.**

Access to payment accounts is widespread and residents usually receive wages and pensions in the payment account.

Point of sale terminals are present at many shops and most Macedonians have payment cards.

Electronic credit transfers, card payments and online shopping have been increasing over time, but the gap with the old and new EU member states is still large.

However, cash is widely used for paying bills and at point of sales which indicates that **the slow digitalization process prevents further progress regarding financial inclusion.**



## Outline

**V. What is being done to support financial inclusion?**

# What is being done to support financial inclusion?

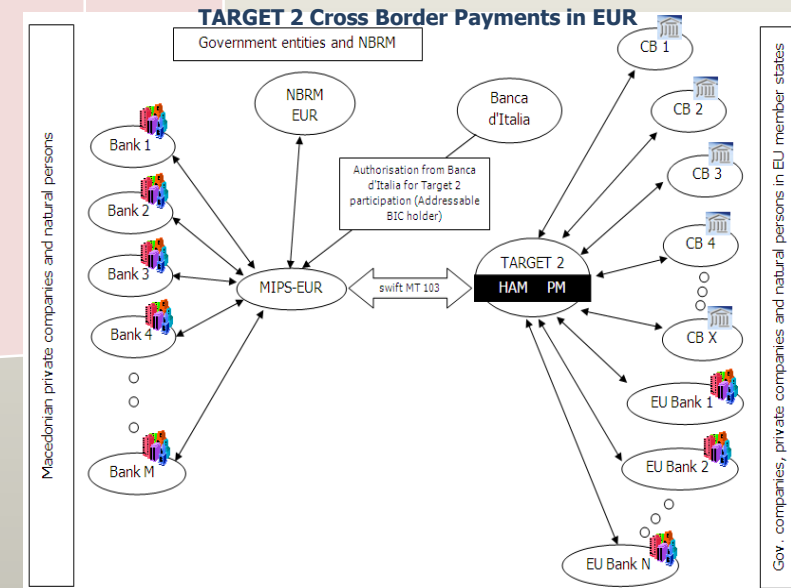
## Increasing the financial inclusion requires:

**Strengthening financial education** – the NBRM implements the Financial Education Project by organizing national and international events dedicated to financial education and literacy

**Improving payment systems access** – established link to Target2 for cross border payments in euro in 2017 and an intention to allow non-banking payment service providers to have direct access to payment systems

**Appropriate regulations to increase competition, enable open banking and establish vigorous consumer protection safeguards** – the NBRM and MFRM prepared a Draft Law on payment services and payment systems which transposes EU regulation (PSD2, PAD, IFR, E-money2, SFD)

**Increasing cashless payments** - Strategy for reducing the use of cash in Macedonia prepared at the beginning of 2018



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# **VI. New technologies and their impact on payment systems and financial inclusion**

# New technologies and their impact on payment systems and financial inclusion

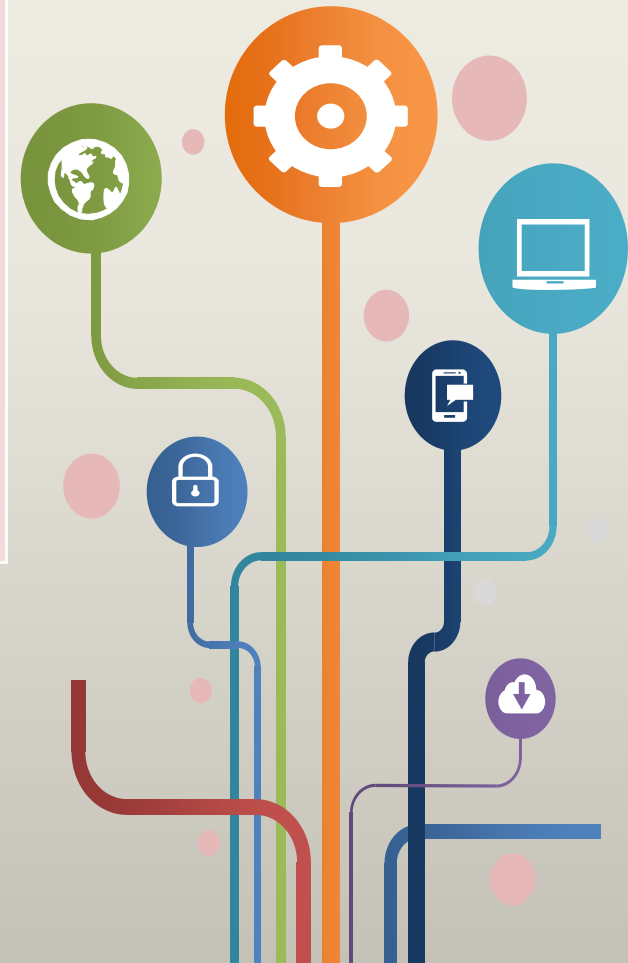
Mobile phones and the internet have given rise to digital payments, but the landscape for digital payments is changing due to the new generation of technologies, such as **Distributed Ledger Technology (DLT)**

**FinTech companies** already provide payment services based on DLT (which is particularly important for cross-border payments)

Central banks of developed countries are running **projects to test the viability of DLT as a platform for new payment systems and other market infrastructures** (ECB, Bank of Japan, Bundesbank, Bank of Canada, etc.)

**Central Bank Digital Currencies** are attracting nowadays the attention of academia and central bankers and are raising numerous questions (who can access directly the CBDC, whether CBDC should generate interest, monetary policy implementation, financial stability implications, etc.)

**New technologies are promising better prospects for financial inclusion** since they can improve the access to payment systems, increase the speed of payments, reduce the cost of disbursing and receiving them and can also enhance their security.





# Thank you for your attention!



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