



NATIONAL BANK OF THE
REPUBLIC OF MACEDONIA

Payment Systems and Instruments in Europe and Macedonia: Comparative Analysis



7th Conference on Payment and Securities Settlement Systems
National Bank of the Republic of Macedonia

July, 2014

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Agenda

1. Payment Operations in the old members of the EU and CESEE

- Large-Value Payment and Retail System Transactions
- Use of payment instruments
- Trends in Payment Behavior
- Overview of Card Payment Trends
- Payment cards issued
- Terminals located in the countries

2. Payment Operations in Macedonia

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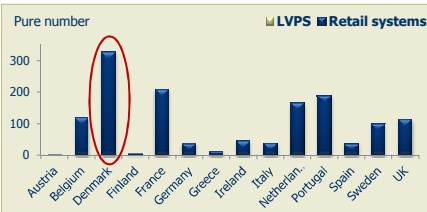


Old EU Members and CESEE

Large-Value Payment Systems & Retail Systems

-Transactions by Number (2012)-

Old EU Members

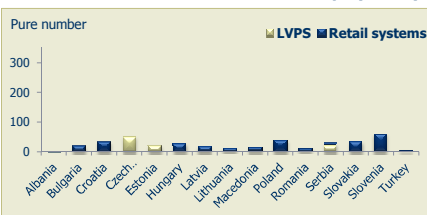


Number of System Transactions per Capita

- In 2012, retail systems transactions per capita had a massive domination in every country.

- Denmark had the largest number of transactions per capita with around 300, followed by France (200) and Portugal with around 180 transactions per capita.

Central, Eastern and South Eastern Europe (CESEE)



Source: ECB & Central banks of Respective Countries

- In 2012, retail system transactions per capita had a substantial domination, except in Czech Republic, Estonia and Serbia where the LVPS transactions were dominant.

- Slovenia had the largest number of system transactions per capita, accounting for 57, followed by Czech Republic with 48 transactions per capita.



Old EU Members and CESEE

Large-Value Payment Systems & Retail Systems

-Transactions by Value (2012)-

Value of System Transactions/GDP

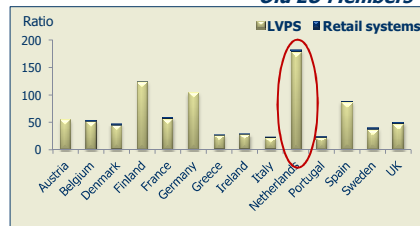
- In 2012, the value of LVPS transactions dominated in the total value of transactions, expressed as a ratio of the value of transactions to respective GDP of each country.

- the Netherlands had the largest ratio for 2012, amounting to 180. In contrast, Italy had the lowest ratio of 21.

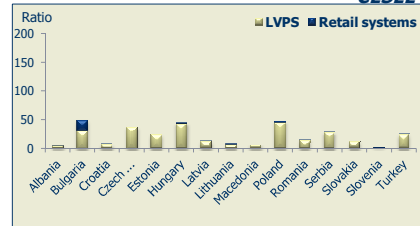
- In CESEE, the value of LVPS transactions dominates over the value of retail system transactions, except in Bulgaria where retail systems make up a significant portion of the total (39%).

- Bulgaria (49), Poland (44), and Hungary (43) had the largest ratio of system transactions to GDP.

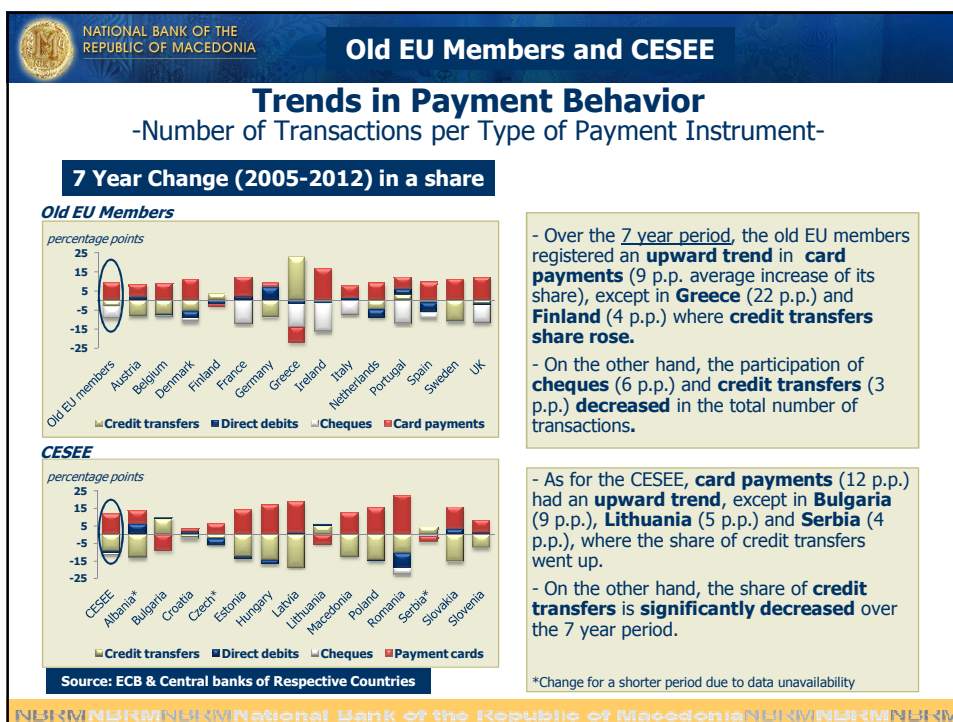
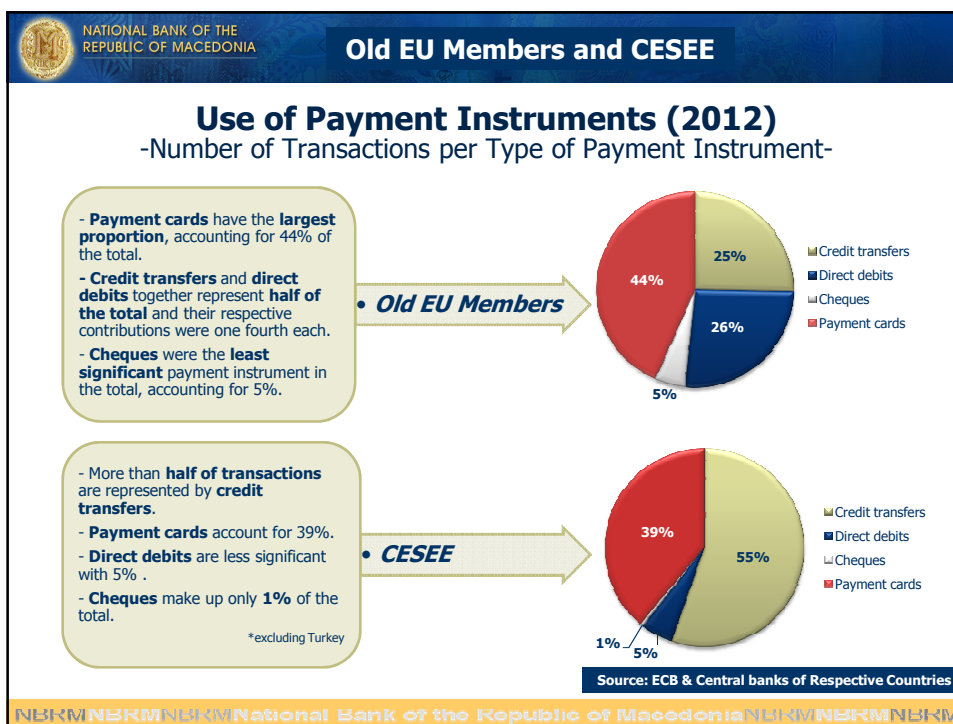
Old EU Members



CESEE



Source: ECB & Central banks of Respective Countries



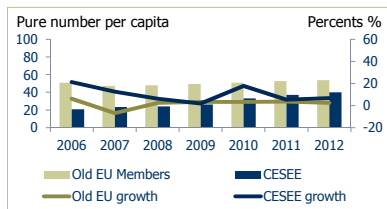


Old EU Members and CESEE

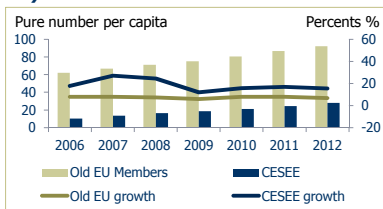
Trends in Payment Behavior

- Number of Transactions per Capita (2006-12) -

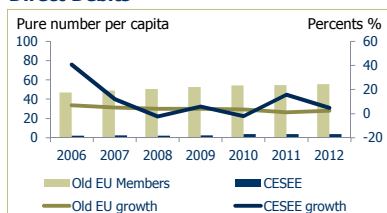
Credit Transfers



Payment Cards



Direct Debits



Source: ECB & Central banks of Respective Countries

The payment instrument **per capita gap** between the Old EU Members and CESEE is **lowest in credit transfers** and **highest in direct debit**.

The **gap is narrowing fastest in card payments** given that the average annual growth rate was distinctly higher in the CESEE (18.5%) compared with that of the old EU members (7.4%) during the analyzed period.

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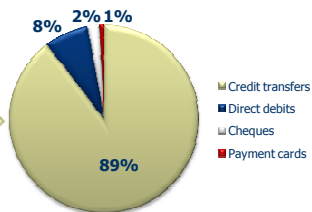
Old EU Members and CESEE

Use of Payment Instruments (2012)

-Value of Transactions per Type of Payment Instrument-

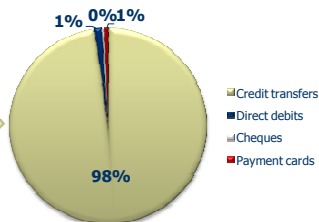
- In 2012, **credit transfers** have the **largest proportion** in the value of total transactions, accounting for 89%.
- **Direct debits** account for 8%.
- **Payment cards** and **cheques** have minor contribution of 3%.

• Old EU Members



- **Credit transfers** have the largest proportion in the total value of transactions, accounting for 98%.
- **Payment cards, direct debits** and **cheques** have small contribution in the total value of transactions, together they account for 2%.

• CESEE



*excluding Turkey

Source: ECB & Central banks of Respective Countries

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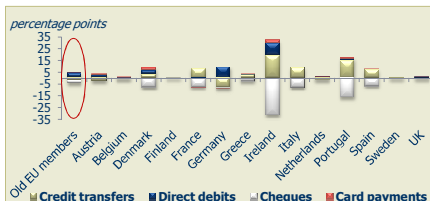
Old EU Members and CESEE

Trends in Payment Behavior

-Value of Transactions per Type of Payment Instrument-

7 Year Change (2005-2012) in a share

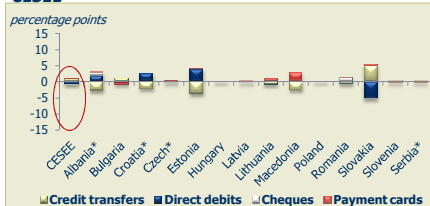
Old EU Members



In the **Old EU members**, **direct debits increased** its share in the total value of transactions by 4 p.p. On the other hand, the share of **cheques** and **credit transfers** both **decreased** by 2 p.p..

Ireland and Portugal registered significant changes in the value of payment instruments. The role of cheques declined substantially, which were replaced largely by credit transfers and/or direct debits.

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In the **CESEE**, the 7 year **changes were lower** than those in the old EU members.

In general, the share of **card payments went up** by 1 p.p. On the other hand, the **value of credit transfers declined** for the same proportion.

*Change during a shorter period due to data unavailability

Source: ECB & Central banks of Respective Countries

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Old EU Members and CESEE

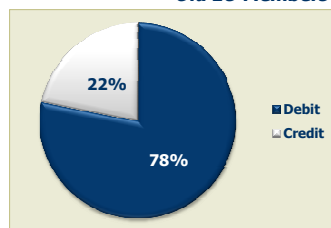
Use of Payment Cards by Function (2012)

-Number of Transactions per Type of Payment Cards Function-

- In the old EU members, the number of payments with **debit cards substantially exceeds** the number of payments with credit cards, accounting for 78% of the total.

- **Credit cards** are **less significant** in the total card payments, and they make up 22%.

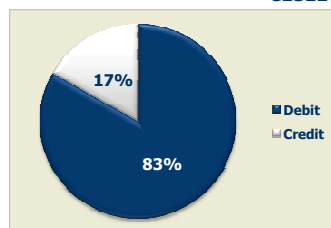
Old EU Members



- In the CESEE, number of payments with **debit cards dominates** over the number of payments with credit cards with 83%.

- **Credit cards** make up 17%.

CESEE



Source: ECB & Central banks of Respective Countries

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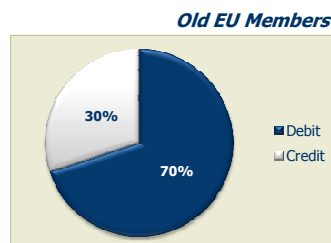


Old EU Members and CESEE

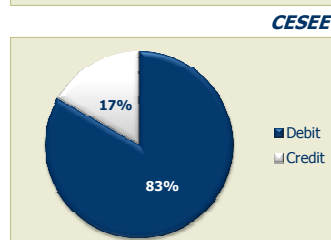
Use of Payment Cards by Function (2012)

-Value of Transactions per Type of Payment Cards Function-

- In the old EU members, the **value of debit card transactions** had a **significant share** in the total value of card payments, accounting for 70%.



- In the CESEE, the value of transactions with **debit cards dominates** with 83% in the total value of card payments.



Source: ECB & Central banks of Respective Countries



Old EU Members and CESEE

Payment Cards Issued in the Countries

-Number of Cards per Inhabitant (2012)-

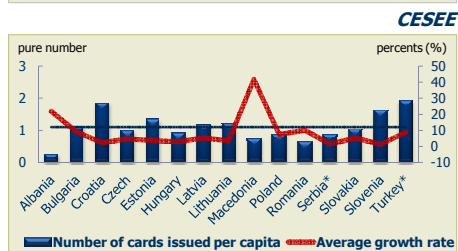
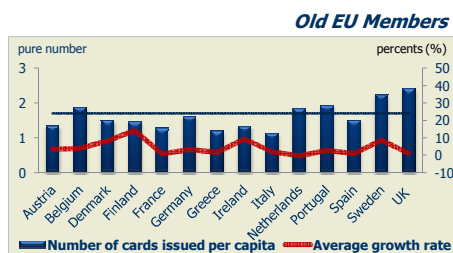
- In the old EU members, the **average number of cards** issued per inhabitant was **1.7** in 2012, and the **UK** had the **largest number** of cards issued with 2.5 cards per capita.

- over the 7 year period (2005-12), the **average growth rate significantly varies** between countries, ranging from -0.4% (the Netherlands) to 14.1% (Finland).

- For the CESEE, the number of cards issued per inhabitant ranged from 0.24 in Albania to 1.93 in Turkey being above the **average of 1.1**.

- the **average growth rate** in cards issued per inhabitant ranged from 1.3% in Slovenia to 41.7% in Macedonia over the 7 year period.

*Change for a shorter period due to data unavailability



Source: ECB & Central banks of Respective Countries

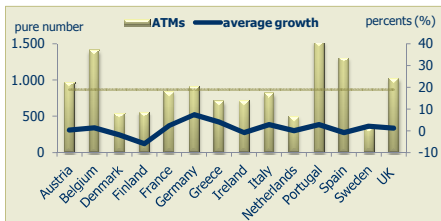


Old EU Members and CESEE

Terminals Located in the Countries

-ATM's per Million Inhabitants (2012)-

Old EU Members

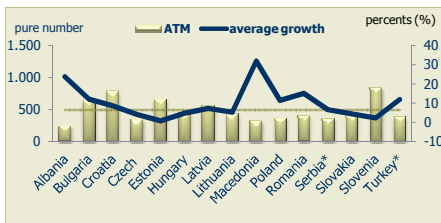


Large variations with respect to **ATM's** located in the old EU members can be identified.

In 2012, the number of ATM's per million inhabitants ranged from 348 (Sweden) to 1,526 (Portugal) with an **average of 866**.

- In the 7 year period (2005-12) **ATM's average growth rate varies** from -6% in Finland to 7% in Germany.

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- In the CESEE, the number of ATM's per million inhabitants ranged from 237 (Albania) to 838 (Slovenia) with an **average of 492**.

- **The average growth rate varies significantly**, ranging from 1% (Estonia) to 32% (Macedonia).

*Change for a shorter period due to data unavailability

Source: ECB & Central banks of Respective Countries

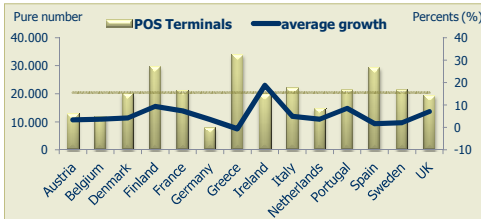


Old EU Members and CESEE

Terminals Located in the Countries

-POS Terminals per Million Inhabitants (2012)-

Old EU Members



-In 2012, **Greece** had the **largest number** of POS terminals with over 30,000 per millions inhabitants and Germany had the lowest number of 7,000; with an **average of 20,377** for this group of countries.

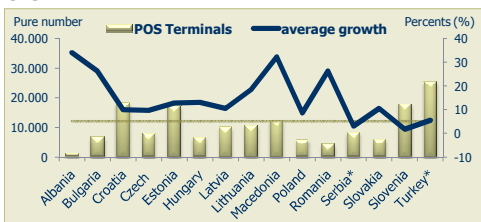
-In the 7 year period (2005-12) the **average growth rate varies** from -1% (Greece) to 19% (Ireland).

-In the CESEE, **Turkey** had the **largest number of POS terminal** per million inhabitants with over 25,000 and Albania had the lowest number of 1,000; with an **average of 12,138** for this group of countries.

-**The average growth rate varies more significantly** when compared to the old EU members, ranging from 2% (Slovenia) to 34% (Albania).

*Change for a shorter period due to data unavailability

CESEE



Source: ECB & Central banks of Respective Countries



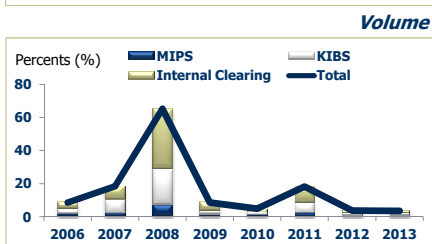
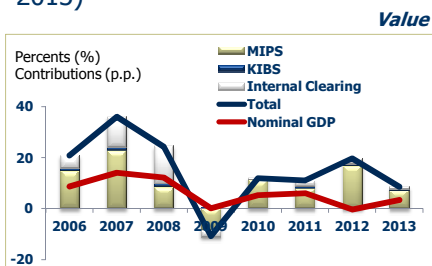
Payment Systems Transactions

- (2006 – 2013) -

- The growth of the value of payments in Macedonia was driven by the changes in the nominal GDP reflecting the business cycle movements.

- The rise of the value of MIPS operations and internal clearing systems of the banks contributed significantly to the growth before the crisis, while the movements in MIPS operations dominate the contribution to the growth in the post crisis period.

- The volume of transactions registered a continuous positive growth, although there is a substantial slowdown during and after the crisis.



Source: National Bank of Republic of Macedonia

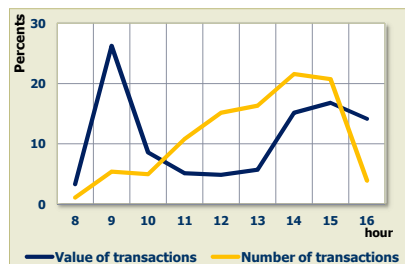


Daily Time Distribution of Transactions

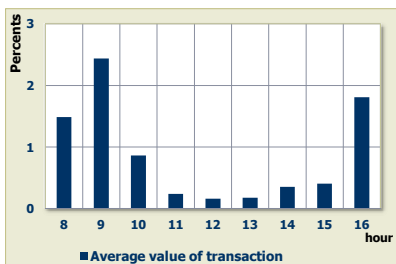
-MIPS (fourth quarter of 2013)-

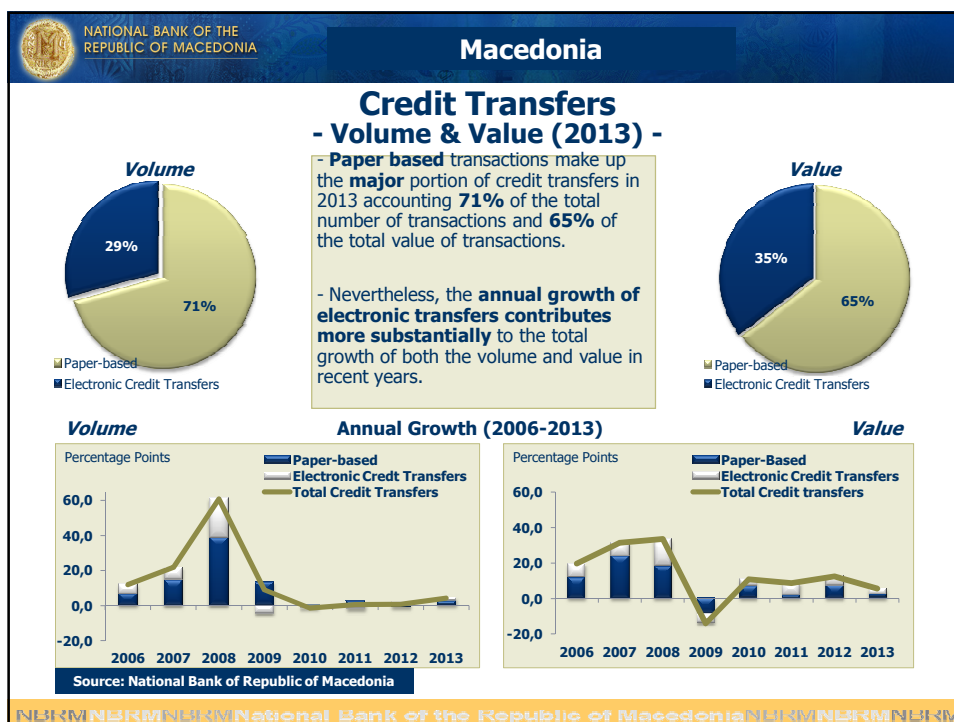
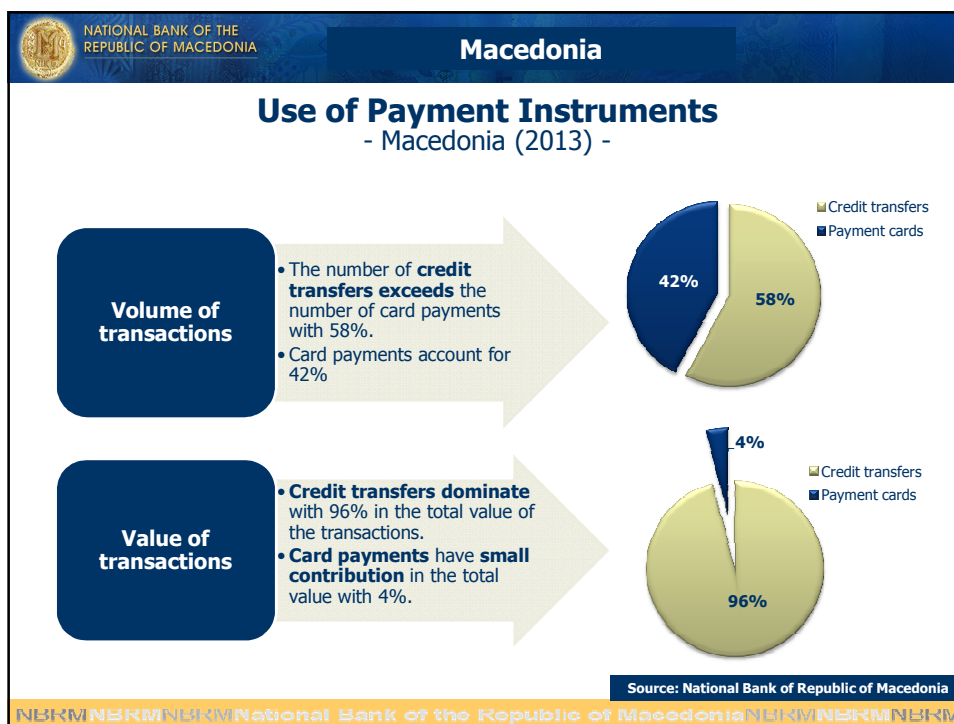
The largest number of transactions (24.7%) on a daily basis is settled between 2-3 pm and the lowest number (0.7%) between 4-5 pm.

In terms of value, the largest value of transactions (amounting MKD 3.0 million on average) is settled between 9-10 am, and the lowest value of transactions (amounting MKD 1.5 mil. on average) is settled between 8-9 am.



Source: National Bank of Republic of Macedonia

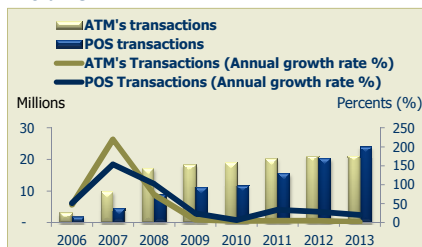






Trends in Card Payments -ATM's and POS Transactions (2006-2013)-

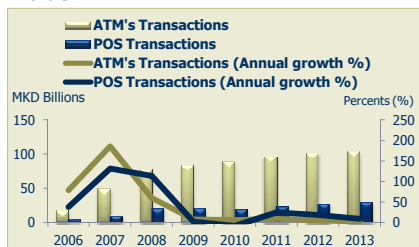
Volume



The **total number of card payments** had a **substantial increase** over the analyzed period.

The number of POS transactions registered **higher growth** than that of ATM's transactions leading to higher number of transactions executed on POS terminals for the first time in 2013.

Value



The **total value of card payments** registered also a **considerable increase**.

Similar trends as in the case of volume are evident in recent years, but **the value of POS transactions is substantially lower in comparison with the value of ATM's transactions**.

Source: National Bank of Republic of Macedonia



Conclusion

- ♦ Retail system transactions dominate over the LVPS transactions in terms of volume, while opposite is the case for the value of transactions.
- ♦ Over the 7 year period, payment cards have become the most widely used payment instrument, in contrast cheques are the least used instrument.
- ♦ Debit cards, in particular, are increasingly substituting cash at the physical point of sale.
- ♦ This is supported by the upward trend of the infrastructure for card payments throughout countries.
- ♦ The CESEE are catching-up the trends in the old EU members, which is noticeable for payments cards, but most of the them experience large gaps and differences in the payment behaviour.
- ♦ Macedonia registered noticeable convergence, in particular in terms of the payment card usage, but the process is far from completed and needs to be supported by adoption of new instruments (ex. direct debit)



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Thank you all for your attention!

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