Payment Systems and Instruments in Europe and Macedonia: Comparative Analysis

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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
Large-Value Payment Systems & Retail Systems

-Transactions by Number (2012)-

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.

- 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.

Central, Eastern and South Eastern Europe (CESEE)

Pure number

LVPS Retail systems

Source: ECB & Central banks of Respective Countries

Old EU Members

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.

Source: ECB & Central banks of Respective Countries
Use of Payment Instruments (2012)

- Payment cards have the largest proportion, accounting for 44% of the total.
- Credit transfers and direct debits together represent half of the total and their respective contributions were one fourth each.
- Cheques were the least significant payment instrument in the total, accounting for 5%.

Old EU Members

- More than half of transactions are represented by credit transfers.
- Payment cards account for 39%.
- Direct debits are less significant with 15%.
- Cheques make up only 5% of the total.

CESEE

- Over 75% of transactions are represented by credit transfers.
- Payment cards account for 39%.
- Direct debits are less significant with 5%.
- Cheques make up only 1% of the total.

*excluding Turkey

Source: ECB & Central banks of Respective Countries

Trends in Payment Behavior

- Over the 7 year period, the old EU members registered an upward trend in card payments (9 p.p. average increase of its share), except in Greece (22 p.p.) and Finland (4 p.p.) where credit transfers share rose.
- On the other hand, the participation of cheques (6 p.p.) and credit transfers (3 p.p.) decreased in the total number of transactions.

- As for the CESEE, card payments (12 p.p.) had an upward trend, except in Bulgaria (9 p.p.), Lithuania (5 p.p.) and Serbia (4 p.p.), where the share of credit transfers went up.
- On the other hand, the share of credit transfers is significantly decreased over the 7 year period.

*Change for a shorter period due to data unavailability
Old EU Members and CESEE

Trends in Payment Behavior
- Number of Transactions per Capita (2006-12) -

- **Credit Transfers**
  - Pure number per capita and percents %
  - 2006-2012
  - Old EU Members and CESEE growth

- **Payment Cards**
  - Pure number per capita and percents %
  - 2006-2012
  - Old EU Members and CESEE growth

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.

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, direct debits and cheques have minor contribution of 3%.

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

*excluding Turkey

Source: ECB & Central banks of Respective Countries
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

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.

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

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%.

- 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%.

Source: ECB & Central banks of Respective Countries
Use of Payment Cards by Function (2012)
- Value of Transactions per Type of Payment Cards Function

**Old EU Members**
- 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%.

**CESEE**
- 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

Payment Cards Issued in the Countries
- Number of Cards per Inhabitant (2012)

**Old EU Members**
- 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
Terminals Located in the Countries

Old EU Members

ATM's per Million Inhabitants (2012)

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.

- 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

POS Terminals per Million Inhabitants (2012)

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 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

Source: ECB & Central banks of Respective Countries
Macedonia

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.

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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 (8.7%) 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.
Use of Payment Instruments

Macedonia (2013)

- The number of credit transfers exceeds the number of card payments with 58%.
- Card payments account for 42%.

- Credit transfers dominate with 96% in the total value of the transactions.
- Card payments have small contribution in the total value with 4%.

Value of transactions

Source: National Bank of the Republic of Macedonia

Credit Transfers

- Paper based transactions make up the major portion of credit transfers in 2013 accounting 71% of the total number of transactions and 65% of the total value of transactions.

- Nevertheless, the annual growth of electronic transfers contributes more substantially to the total growth of both the volume and value in recent years.

Source: National Bank of the Republic of Macedonia

Volume

Percentage Points

2006 2007 2008 2009 2010 2011 2012 2013

60,0 40,0 20,0 0,0

Annual Growth (2006-2013)

Source: National Bank of the Republic of Macedonia

Value

Percentage Points

2006 2007 2008 2009 2010 2011 2012 2013

60,0 40,0 20,0 0,0

Source: National Bank of the Republic of Macedonia
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.

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.

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 form completed and needs to be supported by adoption of new instruments (ex. direct debit).
Thank you all for your attention!

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