



Settling electronic payments in real time: The Mexican experience

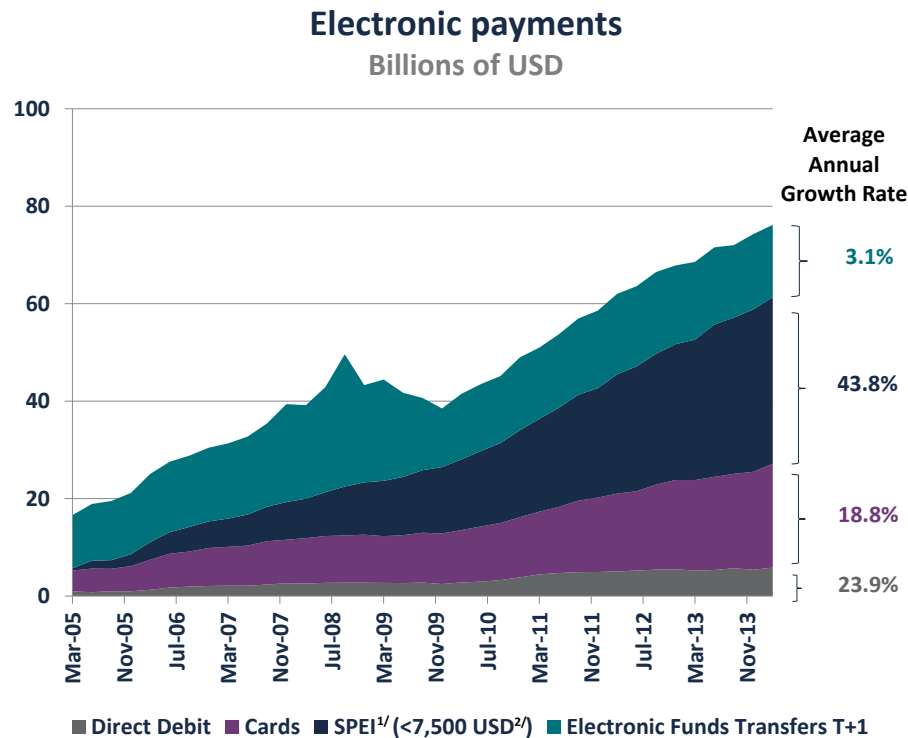
Lorenza Martínez Trigueros, *The evolving landscape of payment systems*, October 2014



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Real time settlement of low-value payments in Mexico

- Instant low-value payments have progressively gained importance in Mexico. This is partly due to their being settled in Bank of Mexico's RTGS, the SPEI.



Source: Bank of Mexico.

1/ Third-party payments: those which are both sent and received by SPEI participants on behalf of their clients.

2/ Calculated with the average exchange rate of October 2014.

Outline

1. The scope for public intervention
2. What we have done
3. Challenges ahead
4. Final remarks

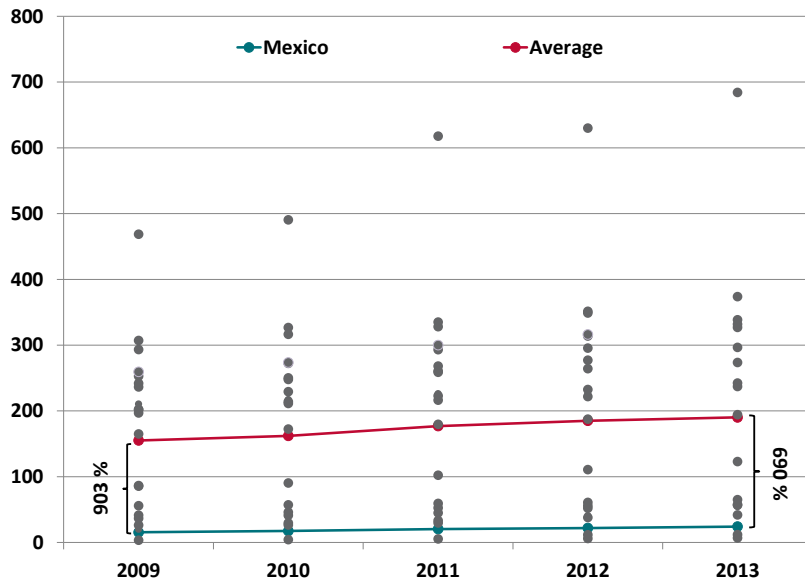
Why do we care about having *anywhere, any-time, any-size payments?*

- By reducing transaction costs, more efficient and reliable payments help to allocate resources more efficiently, which brings about higher social welfare.
- The challenge is to achieve efficiency in electronic payments such that they can be made anywhere, any time and of any size.
- As payment regulators, we care about ensuring the sound development of these payments so that their benefits materialize.

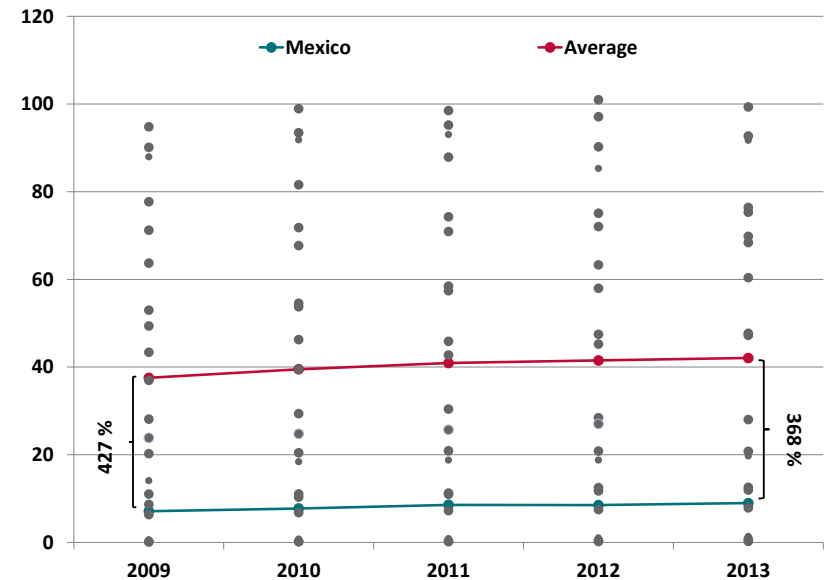
Why do we care about having *anywhere, any-time, any-size payments?*

- In spite of progress observed, Mexico still lags behind other economies in the usage of electronic payments.
- Mexico fares better when credit transfers are considered only. As seen before, most of these transfers are made through SPEI.

Per-capita electronic payments in emerging and developed economies^{1/}
Number of yearly per-capita payments



Per-capita credit transfers in emerging and developed economies^{1/}
Number of yearly per-capita transfers



Source: BIS. Electronic payments defined as the sum of the number of credit transfers, direct debits, E-money payment transactions and card payments.

^{1/} Countries in the sample: Australia, Belgium, Brazil, Canada, China, France, Germany, India, Italy, Japan, Korea, Mexico, Netherlands, Russia, Saudi Arabia, Singapore, South Africa, Sweden, Switzerland, Turkey, (not considered in credit transfers due to the lack of data), United Kingdom, United States (except 2013).

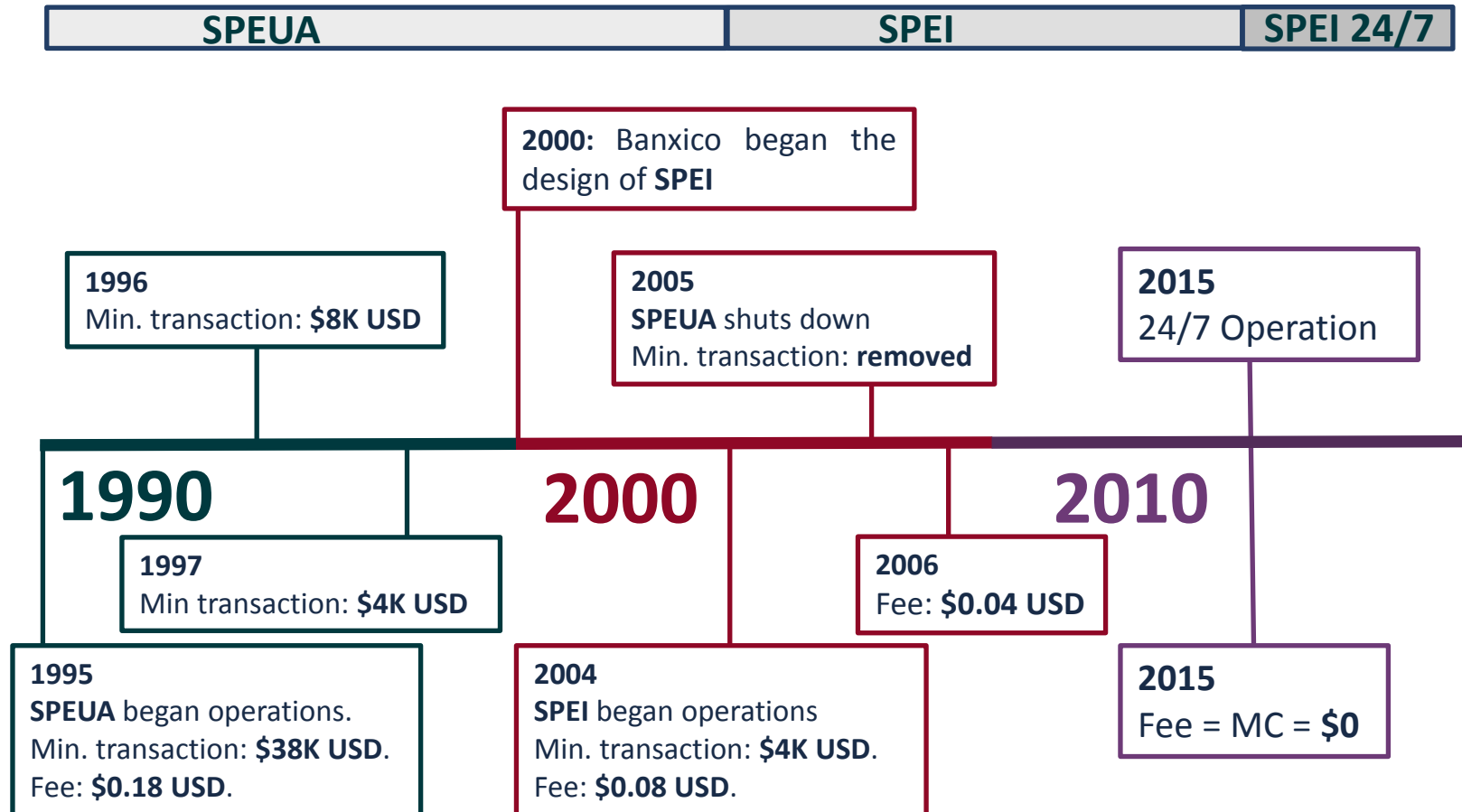
The scope for public intervention in payment systems

- Public intervention in payment systems is needed to:
 - Correct market failures or to complete missing markets
 - Set security standards
- Two alternatives for intervention:
 - Public provision or operation
 - Example: RTGS
 - Regulation
 - Example: mandate information disclosure, set interoperability guidelines
- The mix of these alternatives depends on a number of factors. For instance:
 - Power of regulated entity
 - Complexity of getting the right information
 - Financial system stability and national security implications
 - Provision cost schedule (e.g. natural monopoly)

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Bank of Mexico's role in retail payments: public provision



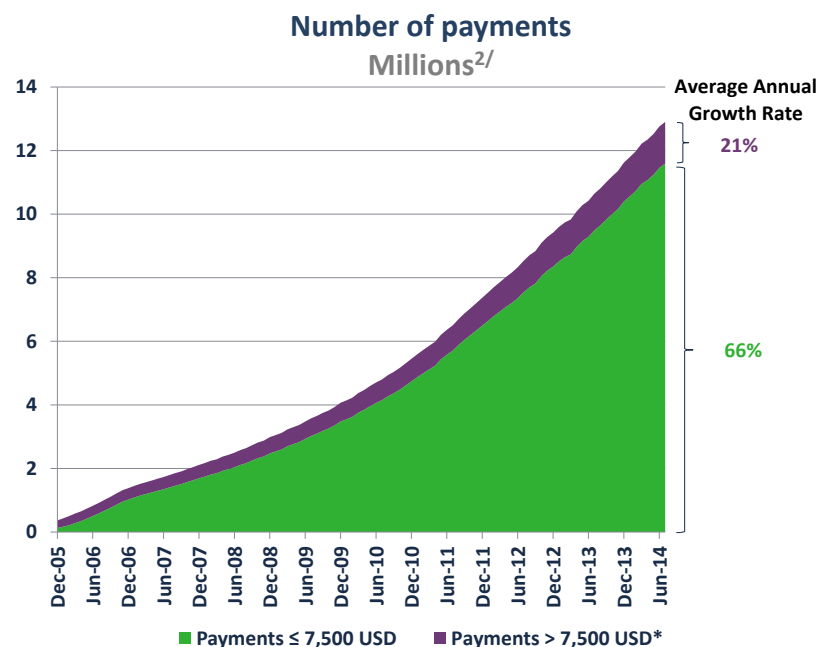
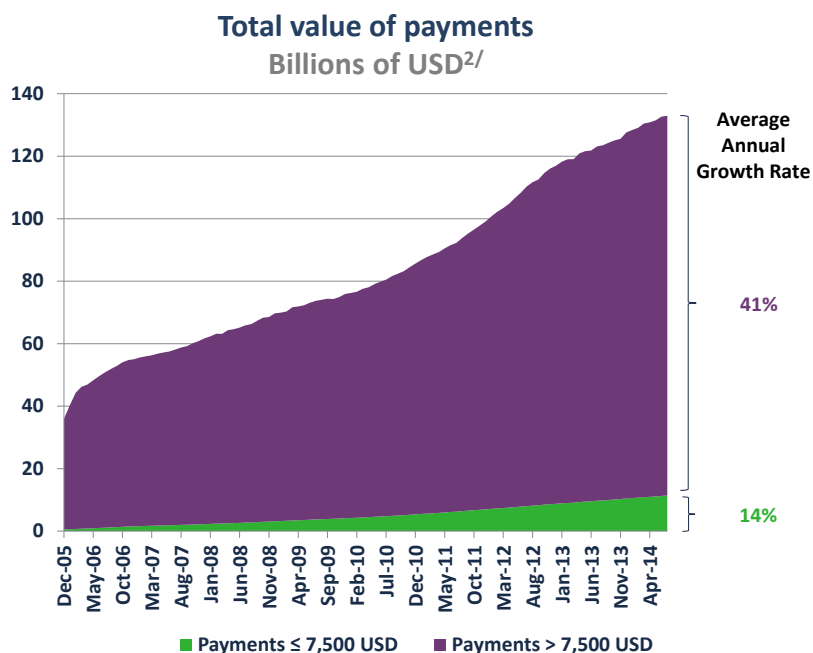
Min. transaction is the minimum amount per transfer on SPEUA/SPEI

Fee is the amount that Banxico charges to commercial banks per transaction on SPEUA/SPEI.

Bank of Mexico's role in retail payments: public provision

- Settle low-value payments in SPEI:
 - Take advantage of economies of scale → Achieve lower average costs

Third-party^{1/} monthly payments settled in SPEI by size



Source: Bank of Mexico.

1/ Third-party payments: those which are both sent and received by SPEI participants on behalf of their clients.

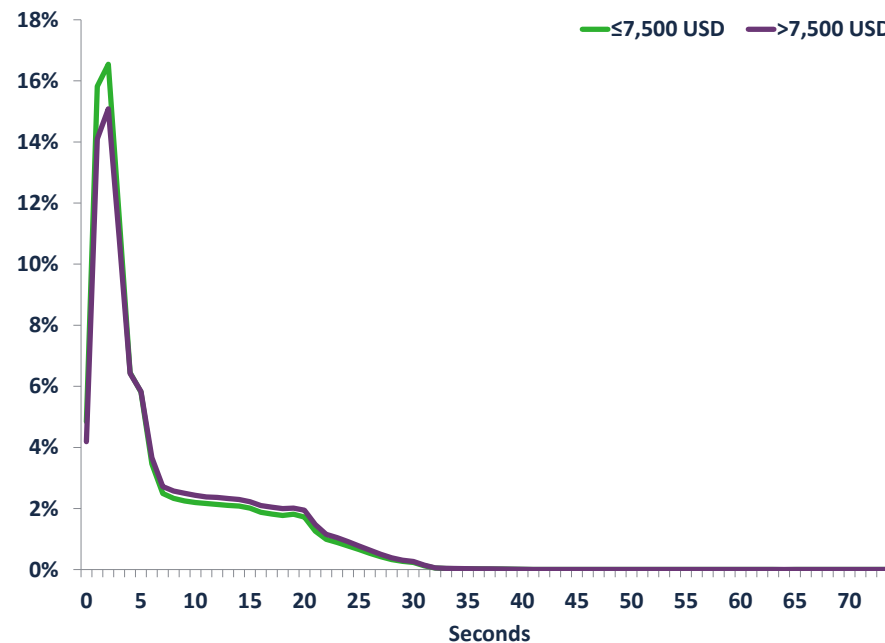
2/ One-year moving average.

*Payments are censored at US\$5.5 million because larger payments exhibit very high volatility. However, the latter represent only 0.16% of the total number of transactions.

Bank of Mexico's role in retail payments: public provision

- Settling low-value payments in SPEI has taken place without delaying payments.

Distribution of settlement delay^{1/} of third-party^{2/} payments in SPEI



Source: Bank of Mexico. Data from January 2013 to July 2014.

1/ Difference between the reception time and the settlement time of payments.

2/ Excludes payments made by the Bank of Mexico, Indeval, and CLS.

Bank of Mexico's role in retail payments: regulation

- The Bank of Mexico has promoted regulation and improvements to the institutional framework in order to deepen financial inclusion and reduce end-user prices:
 - **Basic accounts**
 - Must be offered by banks since 2007
 - Most services are free:
 - Opening or closing the account
 - Debit card
 - Cash withdrawals & balance enquiries at bank's branches or ATMs
 - Direct debits
 - Balance check
 - There's evidence that mandating basic accounts in Mexico has contributed to financial inclusion by enabling users to access more sophisticated financial services.^{1/}
 - Still, authorities could play a more active role in publicizing basic accounts, since branch employees sometimes don't offer them.^{2/}

1/ Kaiser K., Lever C., Salcedo A. (2011), "On the Impact of Mandatory Basic Accounts on Financial Development: Evidence from Mexico", *mimeo*, Banco de México

2/ Giné X., Martínez C., Keenan R. (2014), "Financial (Dis-)Information: Evidence from an Audit Study in Mexico", The World Bank

Bank of Mexico's role in retail payments: regulation

Continued...

- **Tiered-system accounts**

- Introduced in 2011 to enable banks to offer more flexible payment and financial products
- Four tiers, from lower to higher functionality and from looser to stricter KYC & AML/CFT requirements

Tier	Max. monthly deposits	Max. account balance	Debit card	Electronic fund transfers*	Checks
1	300 USD	385 USD	✓		
2	1,150 USD	NA	✓	✓	
3	3,800 USD	NA	✓	✓	
4	NA	NA	✓	✓	✓

* Includes direct debits and mobile payments

Bank of Mexico's role in retail payments: regulation

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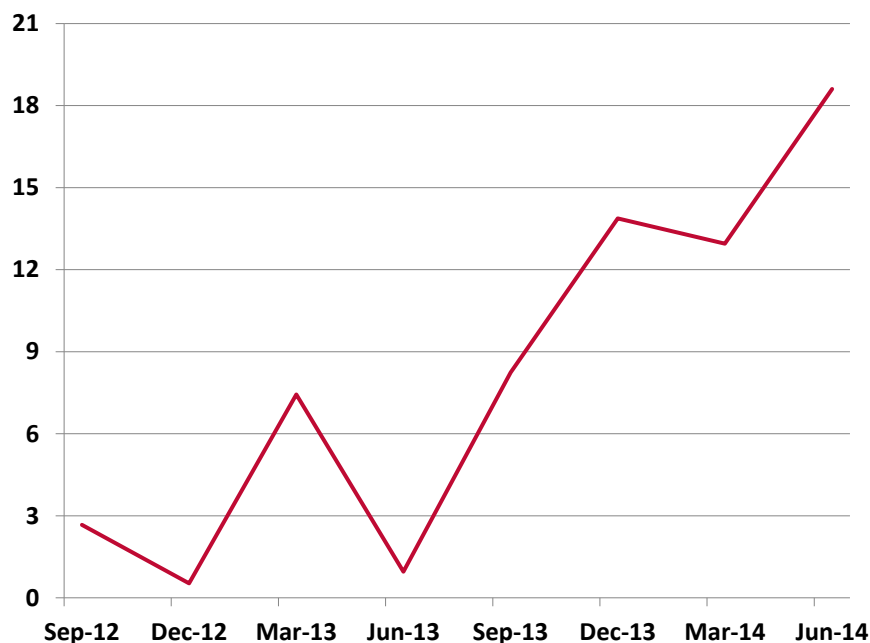
- **Mobile payments**

- BoM issued in late 2013 rules for mobile-payment clearinghouses (MPCH):
 - Linkage of mobile numbers to bank accounts
 - SPEI might be used to settle payments among MPCHs
 - MPCHs will have to interconnect in transparent and non-discriminatory terms
- Still in development stage. In the medium term, service should be available 24/7 and payments should be sent and received within 5 seconds
- Besides P2P payments, mobile payments have potential to broaden P2B electronic payments, in addition to card payments.

Bank of Mexico's role in retail payments: regulation

- There has been a notorious growth in value of the transactions made through a mobile device.
- The current value of the transactions is still small; regulation is expected to incentivize higher growth.

Quarterly transactions^{1/} made through mobile devices
Millions of dollars



Source: Bank of Mexico.

1/ Transactions made thorough phones or mobile devices include: transfers, payments in businesses and other operations such as payments of services

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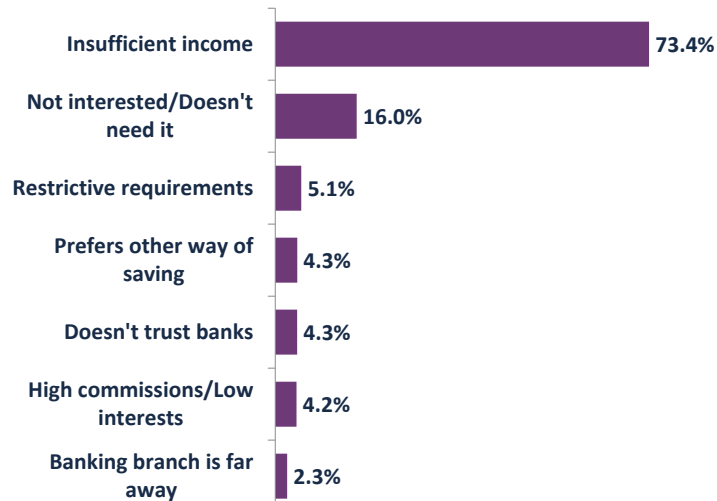
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Challenges ahead

- Adoption of electronic payments is still limited despite observed improvements. Issues to be tackled:
 - Low **financial inclusion**
 - Mistrust** of payment schemes or banks
 - Payment infrastructure** is missing or insufficient in some areas
 - Access to payment services could be **expensive**
 - Electronic payments are rarely used by the **informal sector**

Reasons for not having a bank account

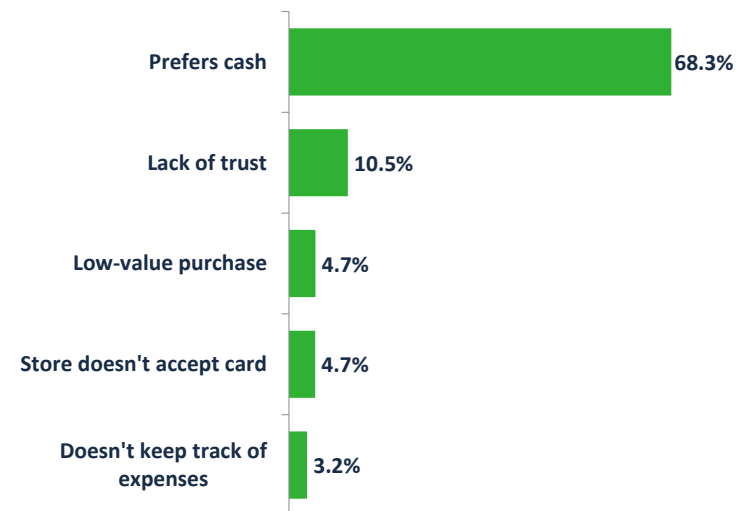
% of people without a bank account



Source: Financial Inclusion Survey (2012), INEGI

Reasons for not paying with debit card

% of people who don't pay with debit card



Challenges ahead

- **Interoperability** should be nurtured among payment-service providers offering the same type of service, without eroding incentives for innovation.
- The **legal framework** should keep up pace with innovation to enable the sound development of more efficient payment alternatives (e.g., e-money)

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Final remarks

- The Bank of Mexico has followed two strategies to enhance the availability, reliability and convenience of electronic payments:
 1. Exploit economies of scale and scope of SPEI
 2. Improve the regulation for privately-run payment services and providers
- Coordination with the industry is necessary to ensure that society enjoys the benefits from more efficient payment alternatives.
- Payment authorities should continue to strengthen incentives to use electronic payments, particularly for those currently excluded from formal financial services.



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