

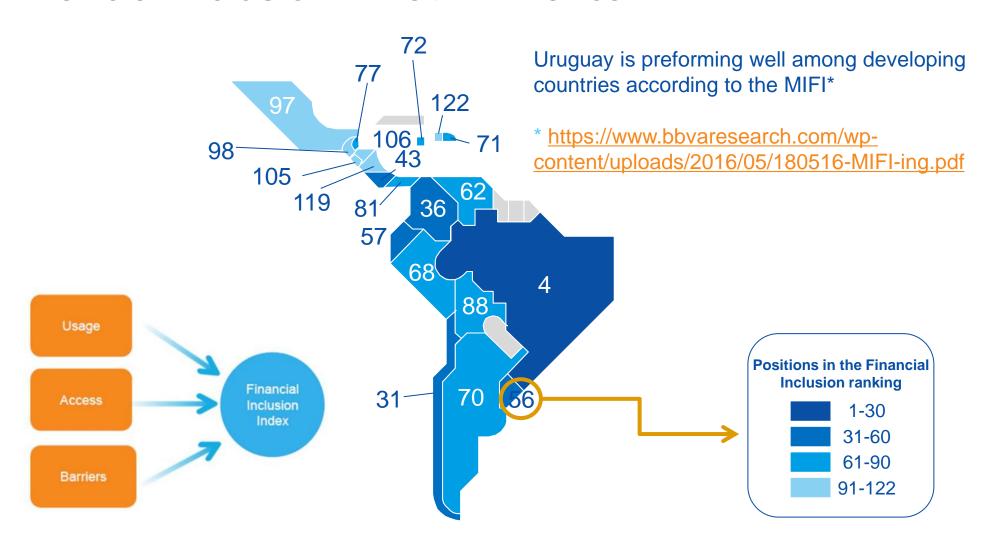


The MIFI index

- An inclusive financial system maximizes usage and access, while minimizing the barriers that block financial exclusion (as a proxy of quality)
- The Multidimensional Index for Financial Inclusion (MIFI) computes the degree of inclusiveness for a financial system across economies and over time
- MIFI assesses usage, access and quality across 18 indicators and 137 countries (140 for 2011). Weights assigned to the dimensions are determined endogenously by employing a two-stage Principal Component Analysis



Financial Inclusion in Latin America





Financial Inclusion by Dimension

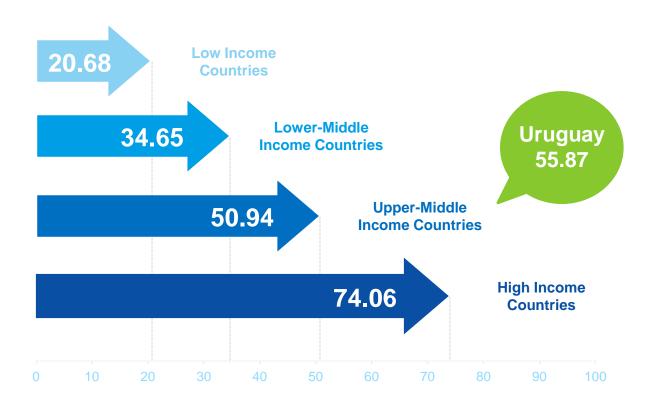
	Uruguay		Argentina		Pe	ru	Chile		
Dimensions/137	Ranking/137	Δ 2011-2014							
FII	56	2	67	5	68	11	31	23	
Use	32	7	88	4	78	1	26	30	
Access	73	3	63	7	5	17	11	6	
Barriers	72	1	70	12	129	0	85	11	

- Usage of formal financial services is outstanding in Uruguay compared with its peers
- Access to formal financial services is lower than expected
- There has been little improvement in the perceived barriers by the unbanked



Comparison in terms of income

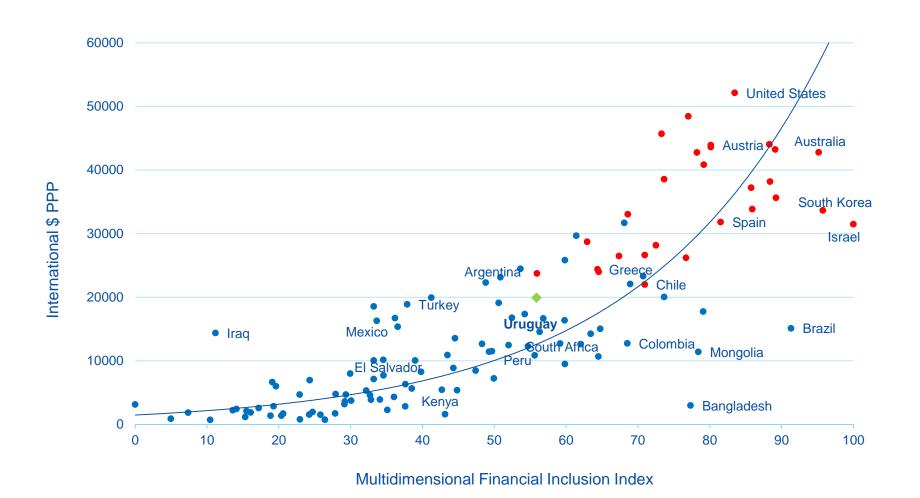
Uruguay is better that the average-country in its income group



The numbers on the arrows represent the average levels of financial inclusion for the <u>countries</u> in each group

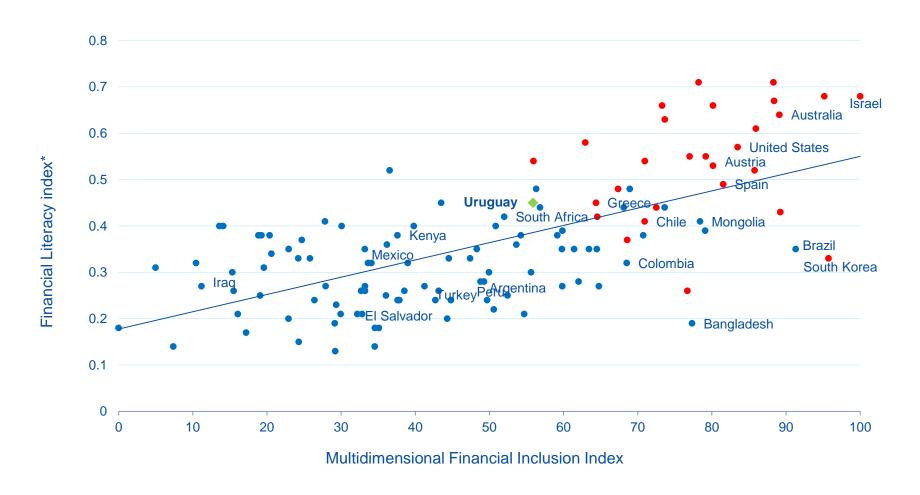


Financial Inclusion and Income, 2014





Financial Inclusion and Financial Literacy, 2014



^{*} The Financial Literacy index is calculated as the percentage of adults who answer 3 o 4 basic financial literacy questions correctly. These questions are detailed in the appendix

URUGUAY STEP BY STEP





Financial Inclusion: key Indicators

- There has been a dramatic increase in the adults with a bank account between 2011 and 2014
- It seems that bank accounts are used more intensively for transactional purposes rather than for saving
- Personal access points are lees available while machine ones have increased by one third
- There are improvements in the perceived distance, costs and trust. However, the percentage of unbanked by choice is worrisome

Dimension		2011			2014			Variation			
Usage	Israel	Uruguay	Cambodia	Israel	Uruguay	Cambodia	Israel	Uruguay	Cambodia		
Account	0.91	0.16	0.04	0.90	0.46	0.22	-1%	188%	450%		
Credit card	0.80	0.27	0.00	0.77	0.40	0.03	-4%	48%	-		
Debit card	0.08	0.17	0.03	0.33	0.38	0.05	313%	124%	67%		
Active account	0.90	0.13	0.03	0.87	0.36	0.06	-3%	177%	100%		
Informal savers	0.20	0.11	0.30	0.09	0.26	0.63	-55%	136%	110%		
Formal savers	0.25	0.06	0.01	0.53	0.12	0.04	112%	100%	300%		
Informal borrowers	0.14	0.06	0.36	0.07	0.06	0.27	-50%	0%	-25%		
Formal borrowers	0.17	0.15	0.19	0.41	0.21	0.28	141%	40%	47%		
Savings ratio	0.55	0.34	0.03	0.86	0.32	0.05	56%	-6%	67%		
Loan ratio	0.42	0.61	0.33	0.64	0.53	0.45	52%	-13%	36%		

Access	Israel	Uruguay	Cambodia	Israel	Uruguay	Cambodia	Israel	Uruguay	Cambodia
ATMs	111.10	39.54	5.87	126.11	51.97	10.71	14%	31%	82%
Commercial bank branches									
and Banking correspondents	20.10	13.54	4.16	19.11	12.21	15.00	-5%	-10%	261%

Barriers	Israel	Uruguay	Cambodia	Israel	Uruguay	Cambodia	Israel	Uruguay	Cambodia
Distance	0.01	0.05	0.15	0.01	0.04	0.46	0%	-20%	207%
Expensive	0.02	0.18	0.10	0.02	0.12	0.48	0%	-33%	380%
Documents	0.02	0.05	0.10	0.03	0.11	0.51	50%	120%	410%
Trust	0.02	0.13	0.15	0.02	0.08	0.31	0%	-38%	107%
No needed	-	-	-	0.06	0.29	0.48	-	-	-



Informal credit

- Family and friends are as much as important as financial institutions in terms of lending
- Informal lenders represents a low share but it is increasing rapidly
- Credit from stores, although high, it is decreasing

	2011				2014		Variation		
Loans/year	Israel	Uruguay	Cambodia	Israel	Uruguay	Cambodia	Israel	Uruguay	Cambodia
Loan familly or friends	0.20	0.18	0.39	0.17	0.21	0.36	-15%	17%	-8%
Loan informal lender	0.02	0.05	0.13	0.02	0.06	0.18	0%	20%	38%
Loan store	0.18	0.21	0.12	0.45	0.17	0.09	150%	-19%	-25%





How to go forward into digital financial inclusion regulation?

Consider 3 principles:

- Similar regulation for similar functions
- Regulation based on risk
- Balance between exante and expost regulation

Go forward into 3 key regulatory areas

- Competition policy
- Level playing field
- KYC and related areas



Regulatory frameworks in Latam

	Commitment from regulator	Integral Financial Inclusion Framework	Date	Selected regulatory actions
Mexico		National FI Policy	2016	4 Levels of accounts, correspondents, Banca de nicho
Colombia		National Strategy and Financial Inclusion Law (SEDPEs)	2014	Electronic savings accounts, basic accounts, e-money
Peru		National FI Strategy	2015	Electronic money Law, basic accounts, correspondents
Brazil		Action Plan to strengthen the institutional environment	2012	Correspondents, basic accounts, microfinance, mobile payments
Chile		No integral rule/strategy, but there is a National Commission for FI	-	Pre-paid cards, Correspondents
Argentina		No integral institutional or regulatory framework	-	Universal Free Account, Microcredit
Venezuela		No integral institutional or regulatory framework	-	Mobile banking, banking correspondents
Paraguay		National FI Strategy	2014	Electronic money, Basic accounts
Uruguay		Law on Financial Inclusion	2014	Electronic means of payment, correspondents, basic accounts

Financial Inclusion Law in Uruguay (2014): objectives and instruments

Previous steps on the regulatory front

- 1. Regulation on **banking correspondents**
- 2. Creation of basic savings accounts
- 3. Efforts to promote financial education

Financial Inclusion Law: Three objectives

- Promote universal access to basic, affordable and high quality financial services
- Enhance the efficiency of the payments system
- Foster competition in the financial system

Instruments

- Creation of new license for electronic money providers (Instituciones Emisoras de Dinero Electrónico, IEDE)
- Bank accounts and electronic money instruments to be offered free of cost to employees and beneficiaries of social programs
- Basic accounts for SMEs
- VAT reduction for purchases with electronic payment means
- Regulation on interoperability of POS and ATMs



Regulatory initiatives: Basic accounts

	Argentina	Brazil	Chile	Colombia	Mexico	Paraguay	Peru	Uruguay
Regulatory framework								
Natural and legal persons								
Digital on-boarding					Only for accounts level 1&2			
Limits to number of accounts owned	System: 1	System: 1		Entity:1	None	Entity: 1 System: 2	Entity: 1 System:4	System 1
Transactional limits (USD)	Balance: 12500 Monthly deposit: 2000	Balance: 880Monthly deposit: 880		Balance: 2000Monthly deposit: 750	 Level 1: 340 Level 2: 1020 Level 3: 3400 	• Monthly deposit: 2430	Balance: 630Monthly deposit: 1250	Monthly deposit: 830Monthly deposit: 2850
	p	egulatory framewo lace / Allowed by ti egulation			ntory framework ot allowed by the		Please refer to for additional	the Appendix explanations



Regulatory initiatives: Electronic money

	Colombia	Peru	Brasil	Paraguay	Uruguay
Authorized operators	Entity Specialized in Electronic Payments and Deposits (SEDPE)	Electronic money Issuing Companies (EEDE)	Payment institutions (Instituição de pagamento)	Entity of Electronic Means of Payment (EMPE)	Electronic money Issuing Institutions (IEDE)
Prudential capital requirement for issuers (% over e-money balances)	2%	2%	2%	No	No
Interest payable on electronic deposits	Allowed	Not allowed	Not allowed	Not allowed	Not allowed
Funds are directly covered by the Deposit Guarantee Scheme	Yes	No	No	No	No
Type of assets in which issuers must hold the funds raised	Bank deposits	Bank deposits, government securities (up to 30%) or other authorised liquid assets	Accounts at the Central Bank or in Federal Government Bonds	Bank deposits	Bank deposits, government securities or other authorised liquid assets
		owed or mandated by regulation	Not allowed the regulati	d or mandated by ion	

The challenge: technology and regulation aligned to achieve scalability



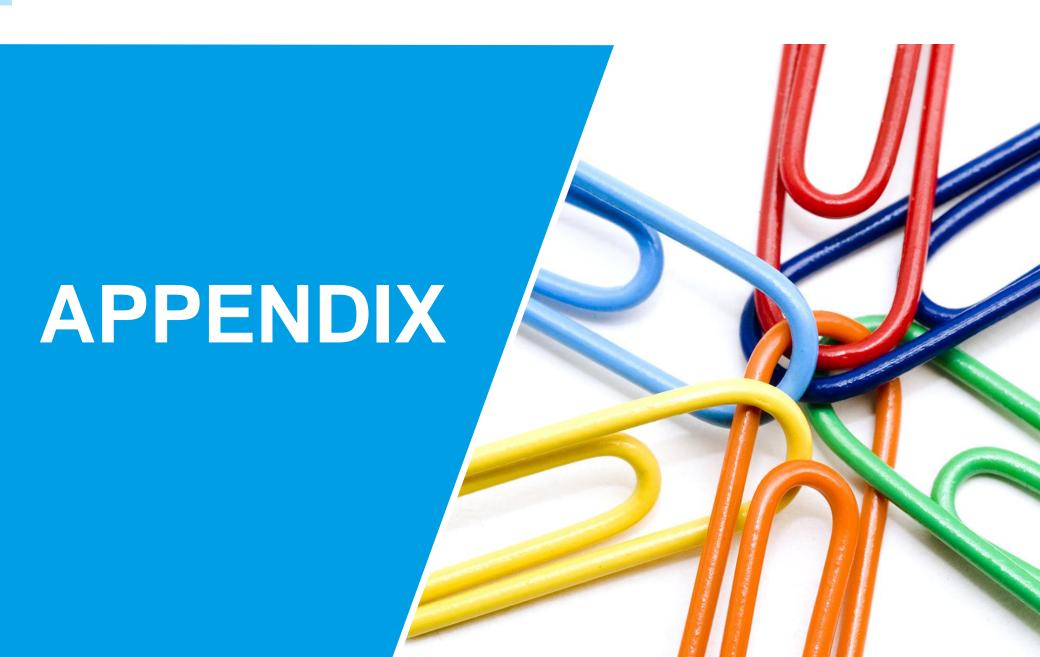
In 2016 mobile payment regulation that fosters the use of mobile phone as a wallet. Apps are provided by banks

There is no e-money regulation for non-banking players

Source: AMI (2016) 18

Thank you!

https://www.bbvaresearch.com/wp-content/uploads/2016/05/180516-MIFI-ing.pdf



Aspects Considered

Use

- Accounts: adjusted number of holders of accounts/cards with a formal financial institution or post office out of the total population: corrected for dormant accounts/cards
- Savings: Persons who save in the formal financial system, adjusted for level of formal/informal savings in the economy. We use the ratio:

$$Ahorro_i = \frac{ahorro\ formal_i}{ahorro\ informal_i}$$

 Credit: Persons with a loan in the formal financial system, adjusted for level of formal/informal credit in the economy. We use the ratio:

$$Cr\'{e}dito_i = \frac{pr\'{e}stamos\ formales_i}{pr\'{e}stamos\ informales_i}$$

Access

- Access points:
 - Personal service access points: Number of bank branches and correspondents (per 100,000 adults)
 - Access via machines: ATMs (per 100,000 adults)

Barriers

(Reasons for Involuntary Exclusion)

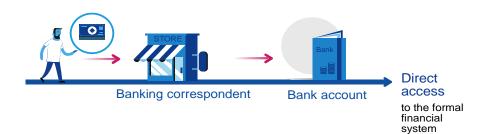
- Confidence: number of individuals not holding a bank account because they do not trust the formal financial system, out of the total population
- Affordability: number of individuals not holding a bank account because they find it very expensive, out of the total population
- Distance: number of individuals not holding a bank account because they find the access points too far away, out of the total population
- Documentation: number of individuals not holding a bank account because they believe they do not have the necessary documents to be able to open one, out of the total population



Classification of banking correspondents

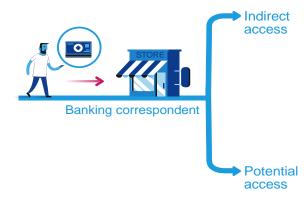
Pure

banking correspondents enter into direct agreements with banks to offer financial services on their behalf.



Hybrid

banking correspondents offer financial services on behalf of non-bank electronic money issuers which, at the same time, have agreements with banks guaranteeing indirect or potential access to the formal financial system.





e-money wallet

Bank account

Takes place when it is possible to make transfers from e-money accounts to bank accounts. Financial inclusion depends on the demand-side taking the initiative.

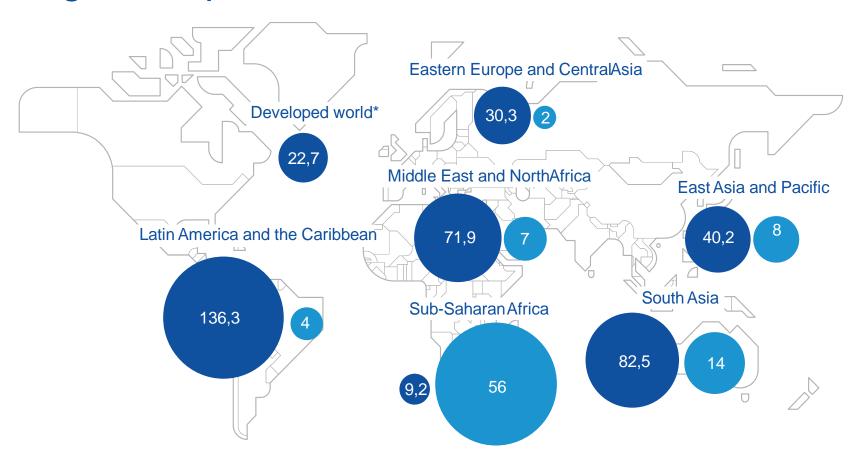


e-money wallet

Mobile operator + Bar

Occurs when the e-money product is offered by a non-bank institution in partnership with banks. In this case, banks have access to the customers' database and may exploit it to offer banking products.

Banking correspondents 2014



- per 100,000 adults
- Pure banking correspondents
 Number of e-money providers that may potentially use hybrid banking correspondents
- *Developed world comprises Australia, Canada, United States, New Zealand and Western European countries



Financial Literacy: The approach by Lusardi y Mitchell

NUMERACY: Suppose you had \$100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow?

[More than \$102; Exactly \$102; Less than \$102; Do not know; Refuse to answer]

COMPOUND INTEREST: Suppose you had 100 US dollars in a savings account and the bank adds 10
percent per year to the account. How much money would you have in the account after five years if you did
not remove any money from the account?

[more than 150 dollars; exactly 150 dollars; less than 150 dollars; don't know; refused to answer]

• **INFLATION**: Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, how much would you be able to buy with the money in this account?

[More than today; Exactly the same; Less than today; Do not know; Refuse to answer]

 RISK DIVERSIFICATION: Please tell me whether this statement is true or false. "Buying a single company's stock usually provides a safer return than a stock mutual fund."

[True; False; Do not know; Refuse to answer]



Regulatory initiatives: Basic Accounts

Regulatory framework:

existence of a dedicated regulatory framework for basic accounts in place in the country



Regulatory framework in place



No regulatory framework in place

Persons and companies:

regulatory frameworks for basic accounts usually restrict the opening of these accounts for natural persons, but some countries have gone one step further by allowing the opening by small firms.



Natural and legal persons



Only natural persons

Digital onboarding:

regulatory framework allows for the opening of basic accounts through electronic means



Allowed by the regulation



Not allowed by the regulation

Limits to number of accounts owned.

Regulatory frameworks for basic accounts usually define a maximum number of accounts an individual may own, and this can be set either at the entity level (i.e. an individual may only own one basic account in each entity) or at the system level (i.e. an individual may only own one basic account in the entire financial system)

System: 1 – An individual may only own one basic account in the entire financial system

Entity: 1 – An individual may only own one basic account in each entity

Transactional limits.

To match the lower requirements in terms of KYC and customer identification, regulatory frameworks usually set limits to the maximum volume of monthly transactions (*Monthly deposit*) or to the balance held in the account (*Balance*), consistent with the income levels of poor population