

# **‘Good’ and ‘bad’ social capital and financial development: Evidence from household financial markets participation**

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# Motivation: Financial underdevelopment in developing countries

One of the most significant barriers to economic development is the **limited use of formal saving and credit instruments**

- Only 18 % of Mexicans used bank credit and only 14 % deposited their savings in the banking system (Banamex and UNAM 2008).
- Mexican banks are traditionally extremely risk-averse, lagging behind the other emerging markets in the region in terms of credit provision (Thomson 2013, FT; IMF 2015). [Link](#)

Problem in many developing countries.

What are the reasons?

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# Motivation: Financial underdevelopment in developing countries

The limited financial development should be viewed through the prism of the institutional features of these economies:

1. Economic and financial exclusion. [Link](#)
2. Lack of trust in formal laws and institutions
3. Large and inefficient shadow economy.
  - Population uses informal substitutes of saving and credit and personal knowledge of the counterparties (De Soto 1989). [Link](#)
  - This is “**Social Capital**” – linked to the level of TRUST in a community (Coleman 1988; Putnam 1993; Fukuyama 1995).

# This paper

- We revisit the evidence on the role of **social capital** for financial development at the micro level (financial inclusion)
- Focus on positive and, frequently overlooked, negative aspects of social capital for FD.
- We exploit rich household-level data from Mexico, two surveys containing:
  - host of financial outcomes;
  - many proxies of various aspects of social capital;
  - personal characteristics;
  - characteristics of the HH place of residence (municipality).

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# Channels: Social capital and financial development

## Economists' view:

Akerlof 1970, Arrow 1972; evidence in La Porta et al. 1997, Knack and Keefer 1997, Guiso et al. 2004, 2009, etc.

- Financial contracts are the ultimate trust-intensive contracts.
- Accumulated SK or “generalized” level of trust is important for financial and other aspects of economic development.

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# Channels: Social capital and financial inclusion

- Sociologists take a more nuanced view
  - SK is about benefits accruing to *individuals from the participation in groups* and efforts individuals take in order to accumulate and enhance this resource (Bourdieu 1985).
  - SK may have both **positive** and **negative** effects for formal FD.
  - Aggregated or generalized proxies are the mixture of both.
  - Even worse: They might be equilibrium outcomes of other institutional forces.
- We take these concerns seriously.
- And use detailed proxies of positive or negative theoretical effects of SK for using formal financial instruments.

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# Channels: 'Good' and 'bad' social capital and financial development

- Weaker ties and (trust in) broader networks can be sources of new knowledge and resources - “strength of weak ties” (Granovetter 1974; Burt 1992)
  - This is what matters for anonymous financial contracts and formal FD.
- In contrast, Banfield (1958)’s “amoral familism” (reliance on family and friends and close ties) may facilitate transactions among its members but exclude others and prevent the most efficient allocation of resources.
- The latter was not documented sufficiently in economic lit.

*Ezra*

# Motivation: Advantages of using Mexico

1. Detailed household-level data that is crucial for our analysis. Large cross-sectional variation.
2. Institutional features that are shared with many economies in developing world:
  - Large informal sector,
  - Long open to international trade and investment.
3. Reform package targeting formal banking sector (typical for other emerging markets):
  - “Pacto por Mexico” by President Enrique Peña Nieto (2012).
  - 13 initiatives to modify 34 laws with the intention to boost growth in the financial sector (see Echeverria and Alvarez 2013).
  - Positive assessment of reforms by the IMF (Staff report 2015)

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3. Reform package targeting formal banking sector (typical for other emerging markets):

Are reforms targeting the right thing?

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# The rest of the talk

- Data and empirical methodology.
- Results for financial market participation.
- Results for expenditures in financial markets.
- Conclusion

# Data

Two Mexican representative national surveys conducted in 2010:

1. Main Data: the National Survey on Values (ENVUD)  
*Improves over WVS: stratified by state, more variables*
2. Robustness: the 2010 wave of the biannual National Survey on Income and Expenditures (ENIGH) - *census*

Cover the micro household-level data:

- **outcomes**: use of financial services (ENVUD) and expenditures in fin markets (ENIGH),
- **social capital**, trust in national institutions (parties, government, banks, etc.) ENVUD,
- **attitude to globalization** (general trade and FDI, NAFTA, FDI to energy and oil) ENVUD,
- HH characteristics, socio-economic conditions of municipalities (ENVUD/ENIGH),
- regional (state) identifiers

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# Financial market participation

- the National Survey on Values (ENVUD) 2010

# Financial market participation

Using the ENVUD values survey data, we estimate the following logit regression:

$$\begin{aligned}\text{logit}(E[Y_i|X_i]) &= \ln\left(\frac{p_i}{1-p_i}\right) \\ &= \text{Trust Narrow Networks}_i\beta_N + \text{Trust Wide Networks}_i\beta_W \\ &\quad + \text{HH}_i\beta_{\text{HH}} + \text{BNK}_{\text{muni}(i)}\beta_{\text{BNK}} + \alpha_s + \epsilon_i\end{aligned}$$

- $Y_i$  : binary outcomes taking the value of 1 when the household  $i$  reports saving or investing in a certain way (with the unobserved probability  $P_i$ ).
- $\text{BNK}_{\text{muni}(i)}$  : the “localized” formal banking sector development,  $\text{BNK}_i = \text{BNK}_s \times \text{Locality}_i$
- We report the results in form of the “odds ratios”,  $P_i/(1-P_i)$ .

# Household level financial market participation ENVUD 2010 (Logistic model), Household characteristics and locality

	(2)	(3)	(4)
Dependent Variable	Savings in cash	Savings in cash	Savings in cash
Social class	0.92**	0.96	0.96
HH wellbeing	0.98	0.98	0.98
Good income	0.94	0.97	0.97
Female head	1.04	1.04	1.04
Age	1.00	1.00	1.00
Married	0.97	0.97	0.97
Risk loving	0.89	0.89	0.89
Low education	1.36***	1.31***	1.31***
High education	0.62***	0.66***	0.66***
Neighborhood quality		0.86***	
Neighborhood quality=2			0.82
Neighborhood quality=3			0.73**
Neighborhood quality=4			0.62**
Neighborhood quality=5			0.51**
Obs.	15868	15854	15854
R-sq.	.042	.044	.044
State Fixed Eff.	Yes	Yes	Yes
Cluster	State	State	State
Nr clusters	32	32	32

# Household level financial market participation ENVUD 2010 (Logistic model): **Generalized level of trust**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Saving in cash	Informal saving in ROSCAS	Informal credit	Save in bank	Credit from bank	Save or invest extra money	Invest in business, property
<b>Trust in others</b>	<b>1.10</b>	<b>1.21**</b>	<b>1.14*</b>	<b>0.97</b>	<b>0.87</b>	<b>0.78**</b>	<b>0.80***</b>
Obs.	15854	15854	15854	15854	15854	15854	15854
R-sq.	.044	.046	.045	.063	.052	.029	.055
State Fixed Eff.	Yes	Yes	Yes	Yes	Yes	Yes	Yes
HH and locality var.	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cluster	State	State	State	State	State	State	State
Nr clusters	32	32	32	32	32	32	32

**Trust in others:** In general terms, would you say that 1) the majority of people can be trusted, or 2) one cannot be so trusting when dealing with people?

# Household level financial market participation, ENVUD 2010 (Logistic model): Trust in tight and loose networks

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Saving in cash	Informal saving in ROSCAS	Informal credit	Save in bank	Credit from bank	Save or invest extra money	Invest in business or property
Local identity	1.12**	0.97	1.12***	0.92*	0.93*	1.02	0.95
For. investment beneficial	0.95**	1.01	0.98	1.02	1.03**	1.00	1.05**
Trust in others	1.10	1.22**	1.14*	0.97	0.87*	0.77**	0.79***
Obs.	15822	15822	15822	15822	15822	15822	15822
R-sq.	.048	.046	.046	.064	.054	.029	.057
State Fixed Eff.	Yes	Yes	Yes	Yes	Yes	Yes	Yes
HH and locality var.	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cluster	State	State	State	State	State	State	State
Nr clusters	32	32	32	32	32	32	32

**Local identity** : With which part of the country do you identify with the most?

3 'own city; 2 state; 1 all the country; 0 'with nothing'

**Trust in narrow networks**

**Foreign Investment beneficial** : Benefit of foreign investment for development of Mexico, categories from 10=fosters to 1=hinders

**Trust in wide networks**



## Household level financial market participation, ENVUD 2010 (Logistic model): Other explanations for trust and FD

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Saving in cash	Informal saving in ROSCAS	Informal credit	Save in bank	Credit from bank	Save or invest extra money	Invest in business or property
Local identity	1.11**	0.97	1.11***	0.92*	0.93*	1.01	0.95
For.Inv. beneficial	0.96**	1.01	0.99	1.01	1.03	1.00	1.05**
Trust in others	1.11	1.22**	1.15*	0.96	0.85*	0.76**	0.79***
Trust in law	1.12	0.82**	0.97	0.98	1.08	1.42***	1.00
Trust banks	0.83**	1.12	0.80**	1.48***	1.40***	0.97	0.91
Obs.	15822	15822	15822	15822	15822	15822	15822
R-sq.	.049	.048	.048	.069	.057	.033	.058
State Fixed Eff.	Yes	Yes	Yes	Yes	Yes	Yes	Yes
HH and locality var.	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cluster	State	State	State	State	State	State	State
Nr clusters	32	32	32	32	32	32	32

Robust to inclusion of Localized state-level banking sector development

# Causality: Does trust cause financial development?

- To draw policy implications we need to establish causality.
- Nature of endogeneity: Reverse causality.
  - SK is about benefits accruing to individuals from the participation in groups and *efforts individuals take in order to accumulate and enhance this resource* (Bourdieu 1985).
- We instrument trust variables:
  - Foreign investment beneficial (trust in loose networks) – by **Remoteness**, average distance from own town to 7 major centers of Hispanic immigration in the USA, weighted by relative U.S. city size.
  - Local identity (trust in tight networks) – by log **Town population** and **Rural community** dummy



# Household level financial market participation, ENVUD 2010

(Probit model): IV regression

	(1)	(2)	(3)
<b>FIRST STAGE REGRESSION: Local identity</b>			
Log Town population	-0.04***	-0.03**	-0.04***
Rural community	0.13**	0.16**	0.10*
<b>FIRST STAGE REGRESSION: Foreign Investment beneficial</b>			
Remoteness	-1.08***	-1.08***	-1.07***

Similar results with alternative IV for FI Beneficial:  
Distance to U.S. border

# Expenditures in financial markets

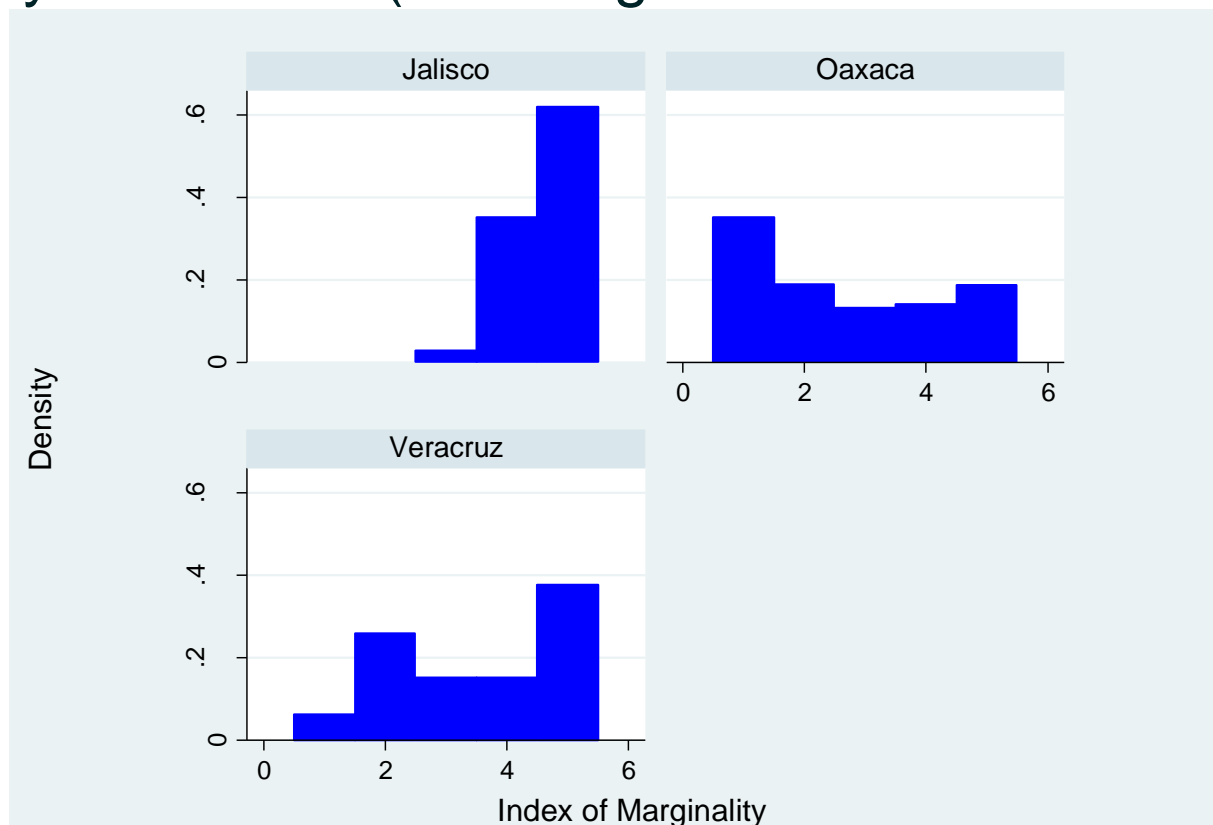
- The 2010 wave of the biannual National Survey on Income and Expenditures (ENIGH) - *census*

## Data: Issue with using the Census (ENIGH), our second source of the FD data

- The proxies of social capital are not available in census covering expenditures in fin markets (ENIGH).
- We average SK at state level and merge the expenditures survey by a common state id – *loss of variation on the RHS.*
- We “localize” them using the index characterizing the “marginality” of household’s municipality.

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State-level averages from individual-level ENVUD survey are merged to ENIGH data and 'localized' by the Index of Marginality in 3 states (1 the highest and 5 the lowest)



9 indicators covering:

a) lack of basic education, b) residence in inadequate housing (for equipment or infrastructure), c) the residence in small, scattered and isolated locations, and d) the perception of insufficient money income (Consejo Nacional De Población, 2010).

# Expenditures in financial markets

With ENIGH data, we estimate the following Tobit model

$$Y^*_i = \text{Trust Narrow Networks}_s \times \text{Marg}_{\text{muni}(i)} \beta_N \\ + \text{Trust Wide Networks}_s \times \text{Marg}_{\text{muni}(i)} \beta_W \\ + \text{HH}_i \beta_{\text{HH}} + \text{BNK}_{\text{muni}(i)} \beta_{\text{BNK}} + \alpha_s + \epsilon_i$$

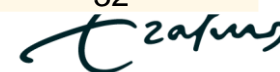
➤ OLS gives inconsistent estimates when the variables are censored

- Reported: Expenses in various financial expenses relative to total household expenditures.
  - This includes zero expenses.
- Similar results when using various expenses in financial markets relative to total **financial** expenses.
  - This is conditional on non-zero total financial expenses.



# Household level financial expenditures, ENIGH 2010 (Tobit)

	(1)	(2)	(3)
	Bank deposits	Credit cards	Other debts
Marginality	-3.8**	4.7***	-1.0
Town identity × Margin.	1.4	-11.3*	-2.6
Foreign Inv. beneficial × Margin.	-1.1	0.22	2.1**
Trust in others × Margin.	-21.3	-34**	-11.1
Trust in law × Margin.	-13.4	-5.4	1.8
Trust banks × Margin.	-3.4	6.2	-1.8
Obs.	27614	27614	27614
R-sq.	.031	.12	.033
HH Characteristics	Yes	Yes	Yes
State Fixed Eff.	Yes	Yes	Yes
Cluster	State	State	State
Nr clusters	32	32	32





# Summary of findings

1. We need to consider various aspects of social capital when studying individual financial inclusion.
2. We show that trust within a narrow social circle is associated with heavy reliance on **informal** financial arrangements.
3. In contrast, trust in broader networks, outside of specific groups, is associated with individuals favoring **formal** finance.
4. Results are robust and imply economically significant and **causal** effects.

# Summary of findings

5. Qualitatively similar results when using the HH expenses in financial markets (bank deposits, credit cards, other debts).
6. The penetration of the banks into local financial market does not seem to affect financial decisions of the households.

# Summary

- Some evidence that these relationships are causal
- Policies aimed at the inclusion of households in formal financial markets should focus at:
  - facilitating the development of civic society which would contribute to “trust in wide networks,”
  - building/maintaining trust in domestic banks,
  - educating the population,
  
  - Improving the rule of law,
  - eliminating drastic disparities in neighborhood quality,
  - reducing costs of operating in formal economy.

*Erasmus*