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# Financial Inclusion Through the *Banco Postal*: an Evaluation

UPU-AFI Workshop on Financial Inclusion and Postal  
Banking

Bern, 9 November 2009



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# Introduction

- ◇ **Origin of the study**
- ◇ **Why Brazil?**
- ◇ **An innovative way of financial inclusion:  
correspondent banking**



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# Outline

- ◇ **The research questions**
- ◇ **Data presentation and empirical approach**
- ◇ **Banco Postal: Evaluation of the Experience**
- ◇ **Discussion**



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# Research questions

- ◇ **Role of the Brazilian postal network in promoting financial access in deprived areas?**
- ◇ **Complementarities or substitution effects between different financial networks?**
- ◇ **Causal effect of Banco Postal on local development outcomes?**



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# Correspondent banking

- ◇ **1999: legislation adapted to allow contracting non-financial firms as correspondents**
- ◇ **Receiving and forwarding requests for bank account opening, loans applications; executing payments, transfers, withdrawals; collecting savings**
- ◇ **Implemented in priority in un-banked or under-banked areas or municipalities**



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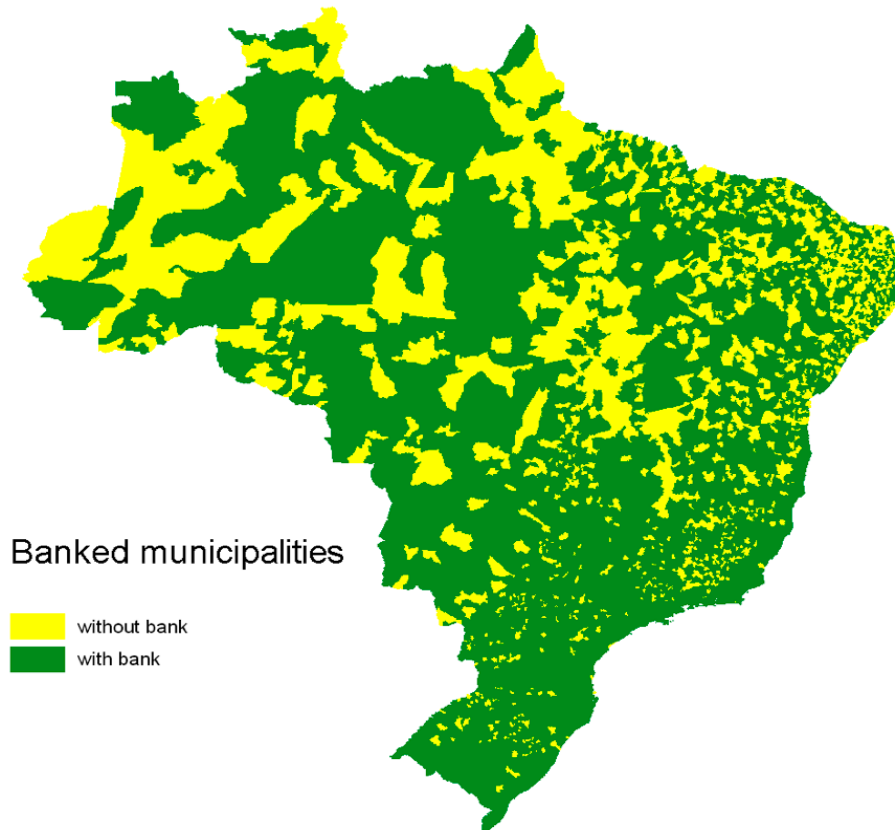
# Panel data

- ◇ **Period: 2000 — 2006**
- ◇ **Geographical coverage: all 5,561 municipalities in Brazil**
- ◇ **Sources: merging several huge databases including Correios (Banco Postal), the Brazilian Institute for Geography and Statistics, the Institute of Applied Economic Research, the Central Bank of Brazil**

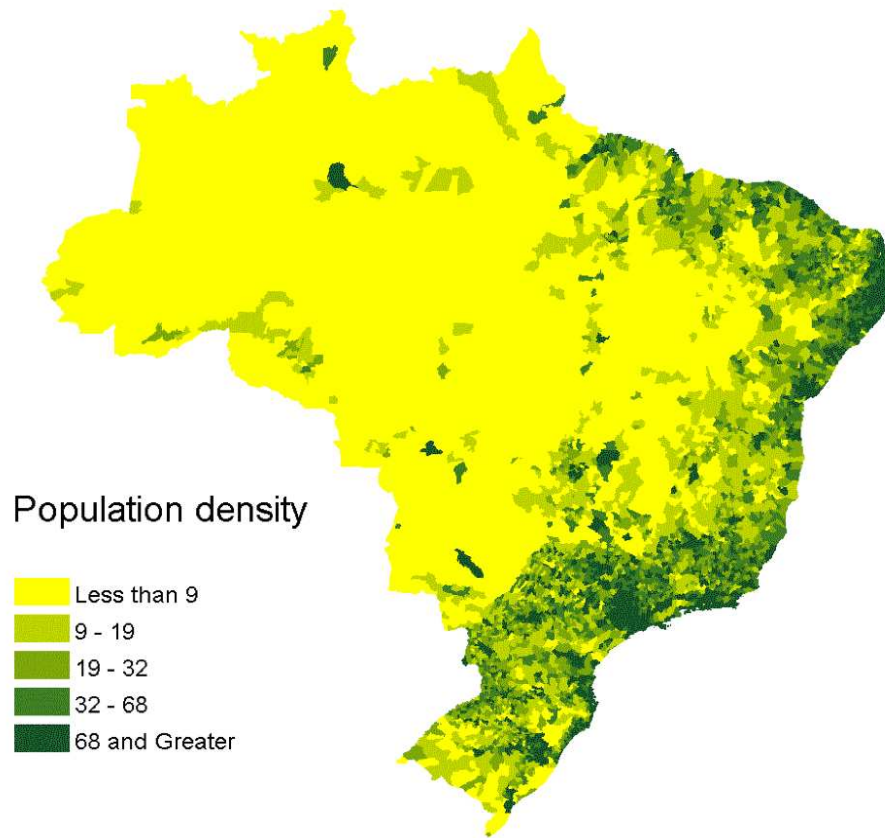


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# Un-banked municipalities

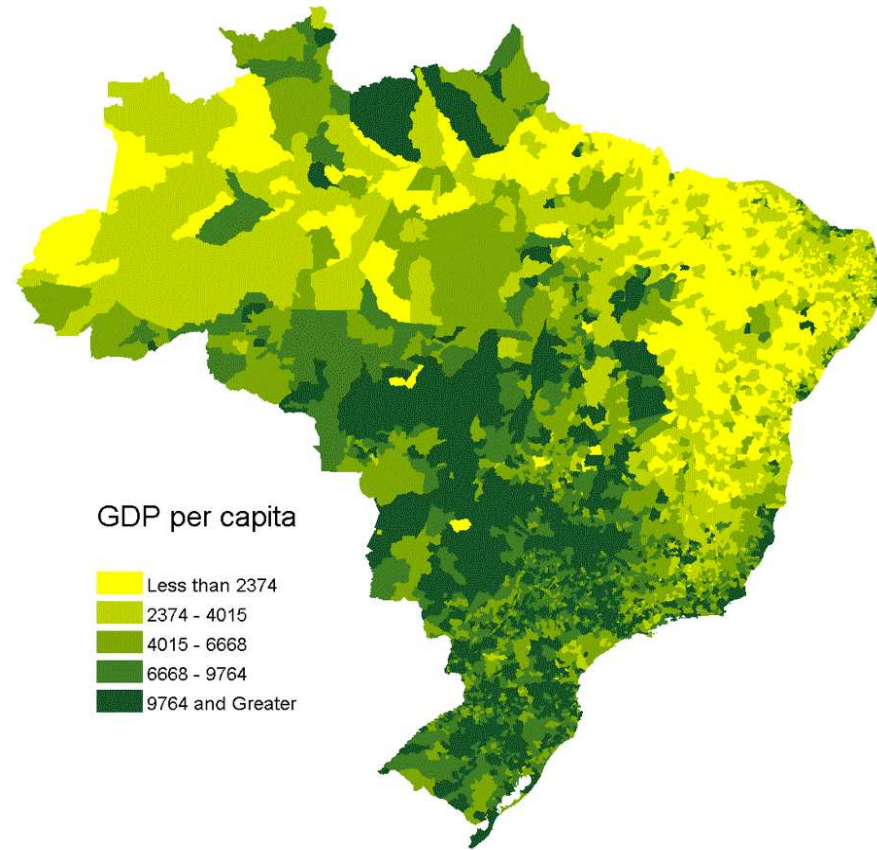


**More than 40 %  
of municipalities  
without banks in  
2002 =>  
increasing  
transactions  
costs for the  
poor and less  
well-off (e.g.  
transport to  
another city,  
time, etc.)**



*Note:* Population density as defined by pop. per square Km  
*Source:* Authors' calculation; data from IBGE

**Figure 4.1 - Population density in Brazil**



*Note:* GDP per capita figures for 2005, in non-PPP BRL  
*Source:* Authors' calculation; data from IBGE

**Figure 4.2 - Distribution of wealth in Brazil**



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# Methodological approach

- ◇ **Descriptive regional analysis**
- ◇ **Descriptive municipal analysis**
- ◇ **Causal analysis, treatment effects and matching methods**



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# BP: evaluating access



**2002: 2,450 BP agencies,  
822 agencies where no bank  
or other correspondent**



**2003: 3,813 BP agencies,  
1,108 agencies where no bank  
or other correspondent**



**2004: 5,362 BP agencies,  
1,299 agencies where no bank  
or other correspondent**



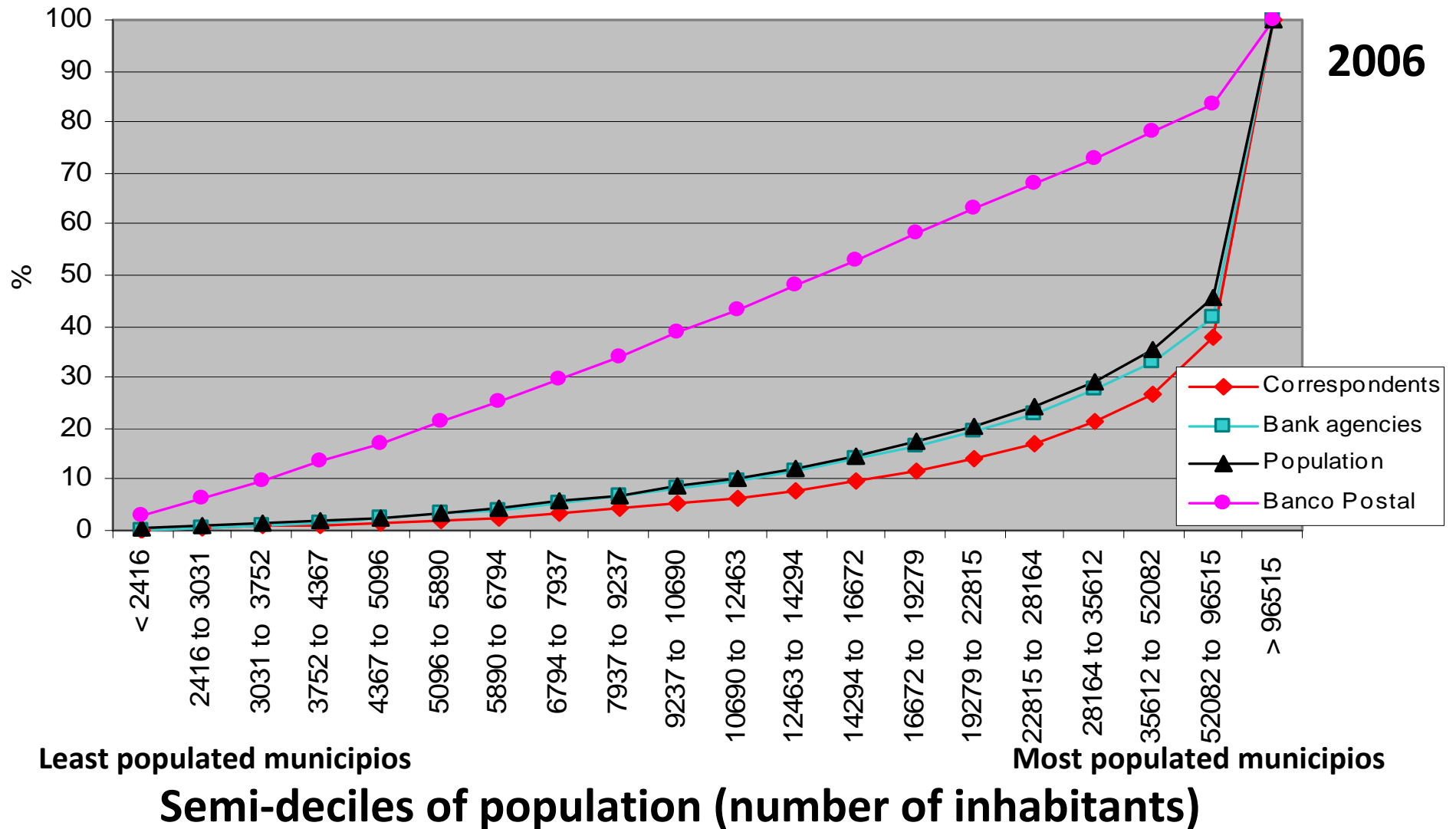
**2005: 5,444 BP agencies,  
1,154 agencies where no bank  
or other correspondent**



**2006: 5,567 BP agencies,  
856 agencies where no bank  
or other correspondent**

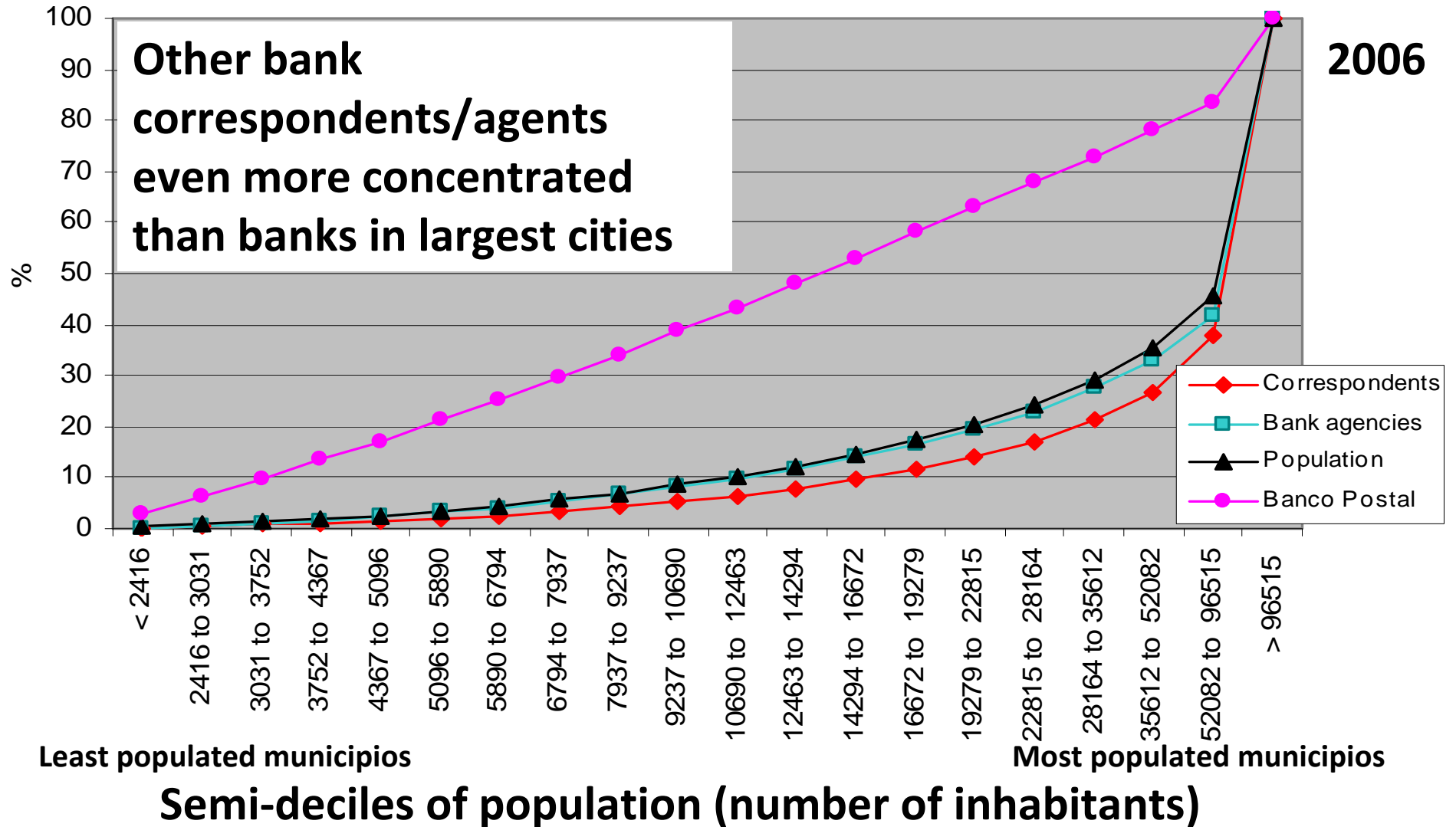


# BP: Evaluating Access



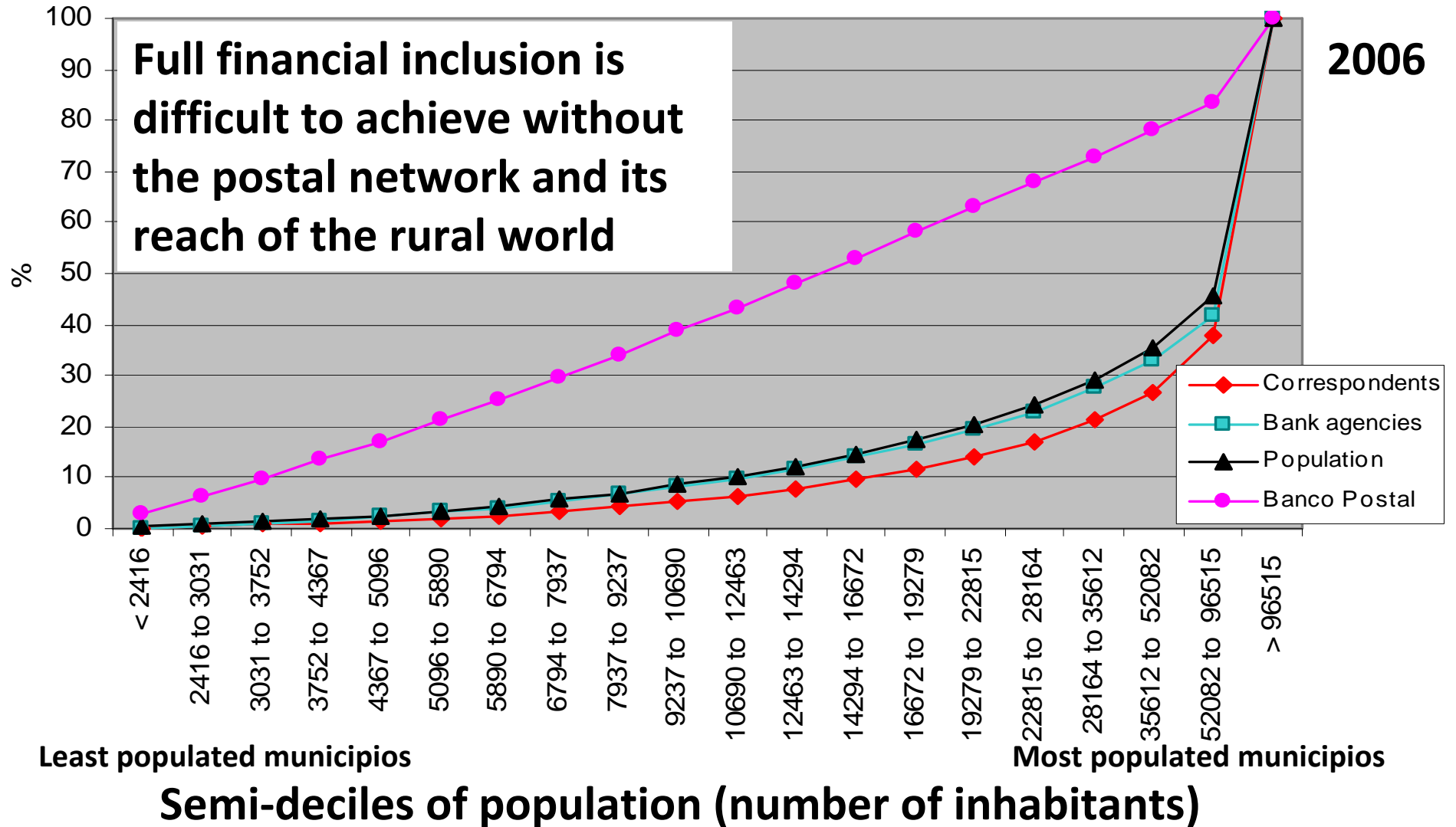


# BP: Evaluating Access





# BP: Evaluating Access



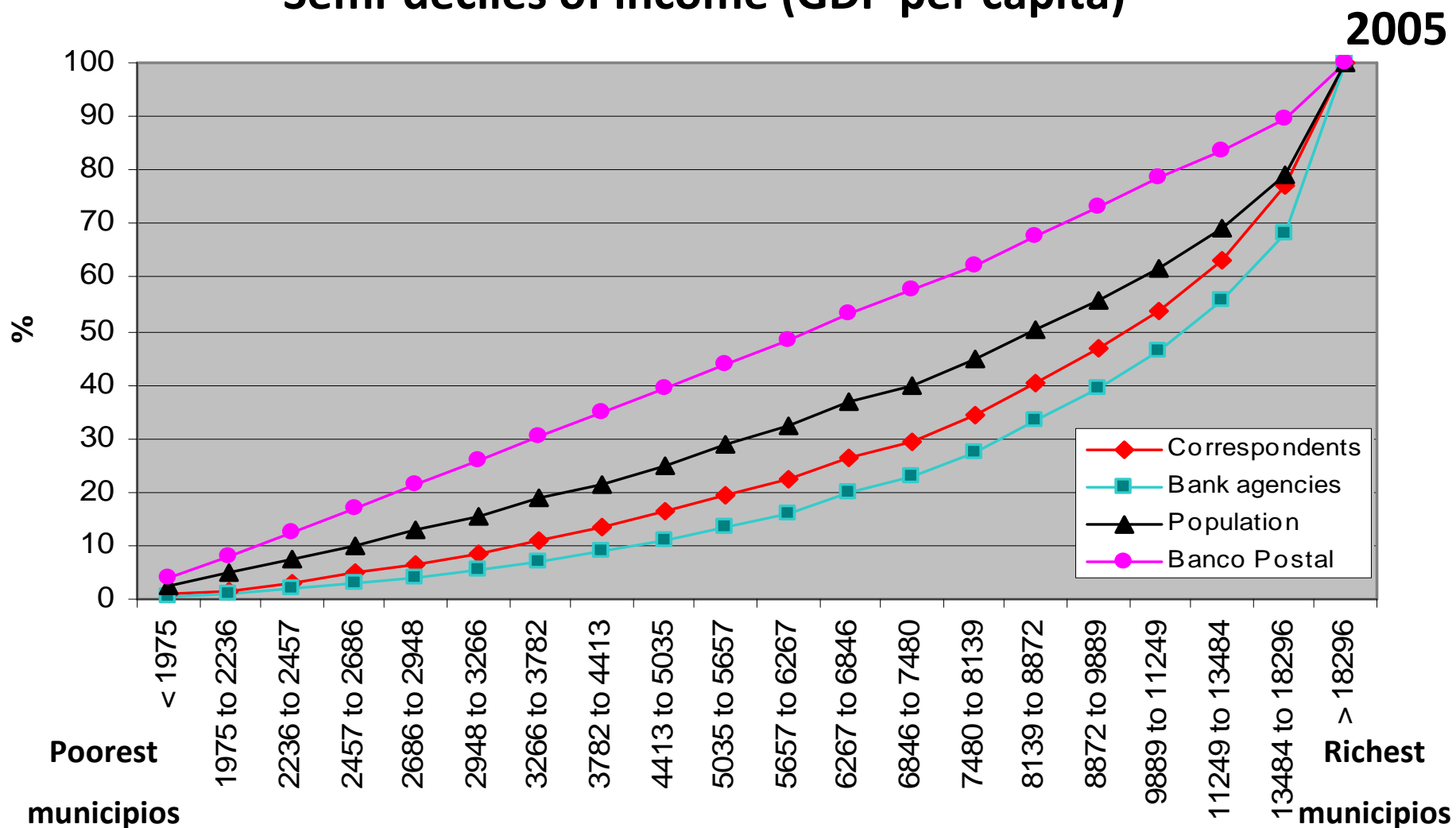


# BP: Evaluating Access

2002	BP ag.	Banks ag.	Corr. ag.	Pop.	
#	Semi-decile pop.	% of total in the semi-decile			
1	the least populated 5% of municipalities: < 2,442 inhab.	1.92 %	0.25 %	0.07 %	0.31 %
2	2,442 to 3,072 inhab.	2.12 %	0.38 %	0.15 %	0.43 %
...					
10	9,056 to 10,417 inhab.	4.12 %	1.50 %	0.29 %	1.54 %
...					
19	48,959 to 88,477 inhab.	7.67 %	8.87 %	10.88 %	10.37 %
20	the most populated 5% of municipalities: > 88,477 inhab.	19.31 %	58.29 %	76.54 %	54.22 %



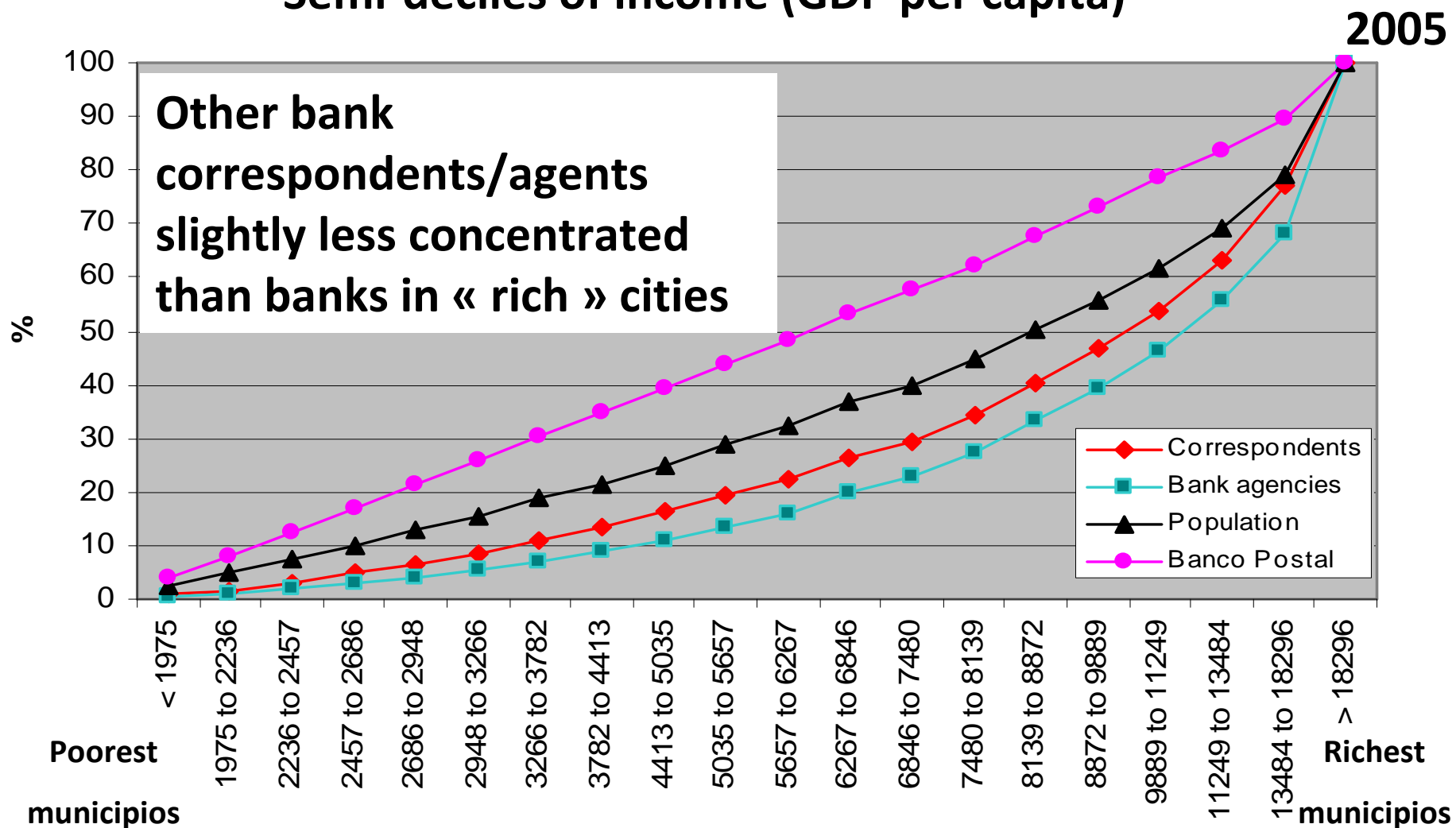
## Semi-deciles of income (GDP per capita)





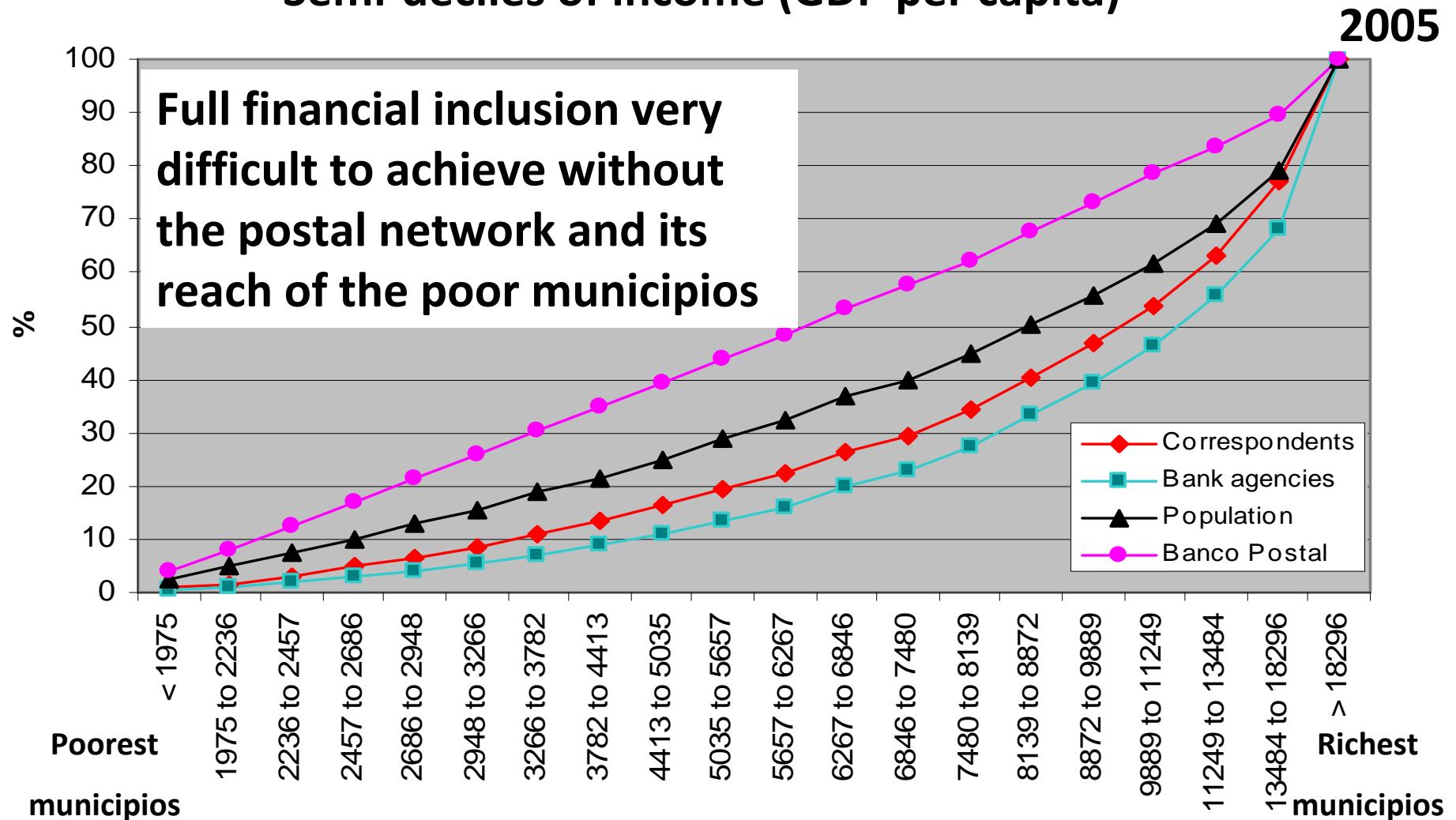
# BP: Evaluating Access

## Semi-deciles of income (GDP per capita)





## Semi-deciles of income (GDP per capita)





# BP: Evaluating Access

2002	BP ag.	Banks ag.	Corr. ag.	Pop.	
#	Semi-decile GDP p.c.	% of total in the semi-decile			
1	the poorest 5% of municipalities: < 1405 reais	4.21 %	0.42 %	0.00 %	2.28 %
2	1,405 to 1,603 reais	3.84 %	0.59 %	0.00 %	2.57 %
...					
10	3,561 to 4,025 reais	4.29 %	2.18 %	3.01 %	3.29 %
...					
19	9,741 to 13,244 reais	6.49 %	13.56 %	15.96 %	11.11 %
20	the wealthiest 5% of municipalities: > 13,244 reais	10.13 %	31.13 %	26.91 %	19.79 %



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# BP: Inclusion Success

## **Mobilizing savings**

- **In the 50 % poorest municipalities**
- **Less than 30 % of the total population**
- **Half of the total savings accounts of Banco Postal**



# BP: Evaluating the Use

	2005	Current deposits	Savings deposits	Accounts	Pop.
#	Semi-decile GDP p.c.	% of total in the semi-decile			
1	the poorest 5% of municipalities: < 1976 reals	3.86 %	4.42 %	4.53 %	2.49 %
2	1,976 to 2,236 reals	3.92 %	4.36 %	4.29 %	2.55 %
...					
10	5,035 to 5,658 reals	4.78 %	4.58 %	3.89 %	3.76 %
...					
19	13,485 to 18,296 reals	5.53 %	5.26 %	8.33 %	10.38 %
20	the wealthiest 5% of municipalities: > 18,296 reals	9.93 %	11.62 %	12.69 %	20.65 %



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# BP: Inclusion Success

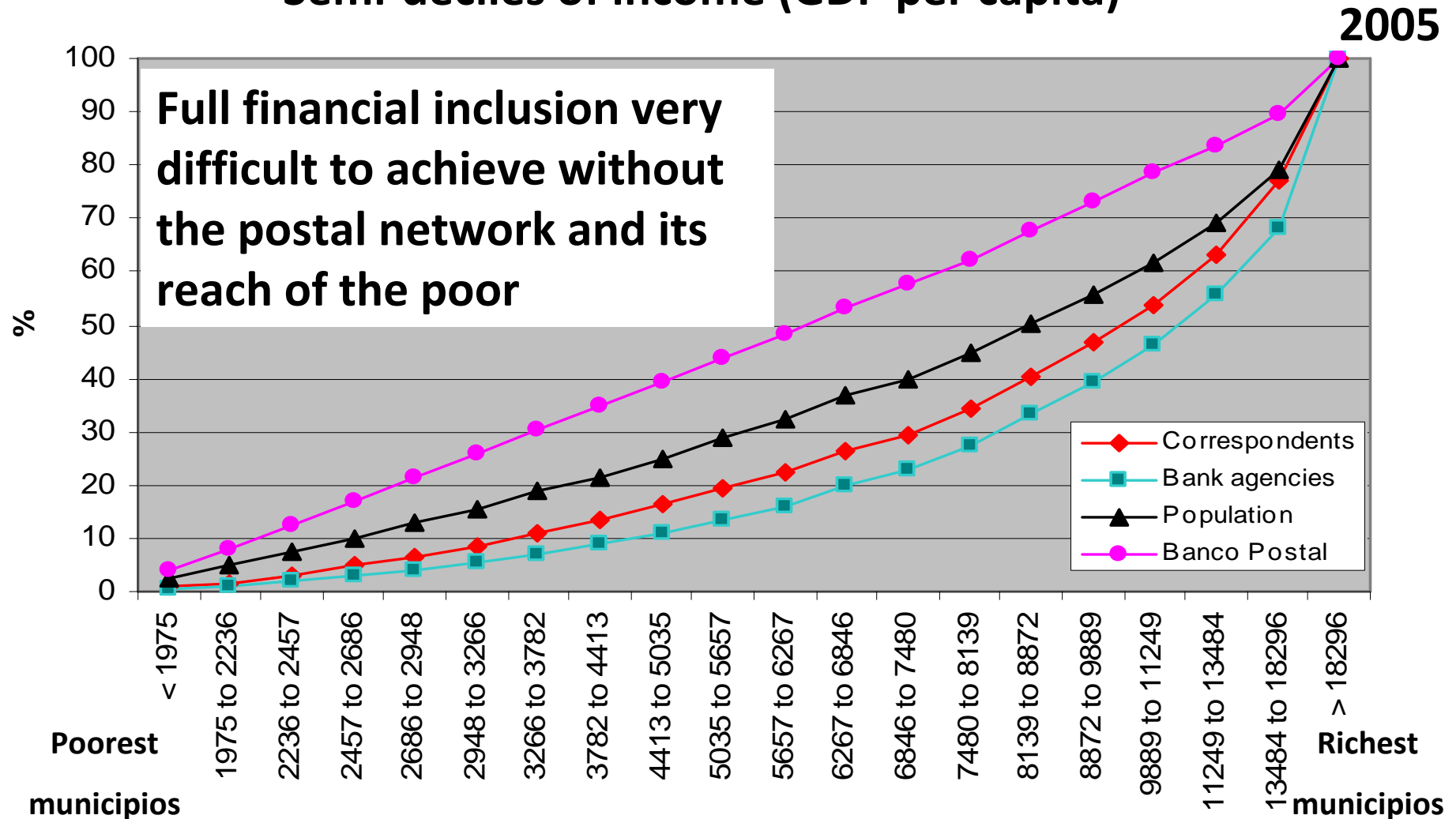
## Access to microfinance and loans

- **In the 20 % poorest municipalities**
- **10 % of the total population**
- **25 % of all loans and micro-loans**



# BP: Evaluating Access

### Semi-deciles of income (GDP per capita)

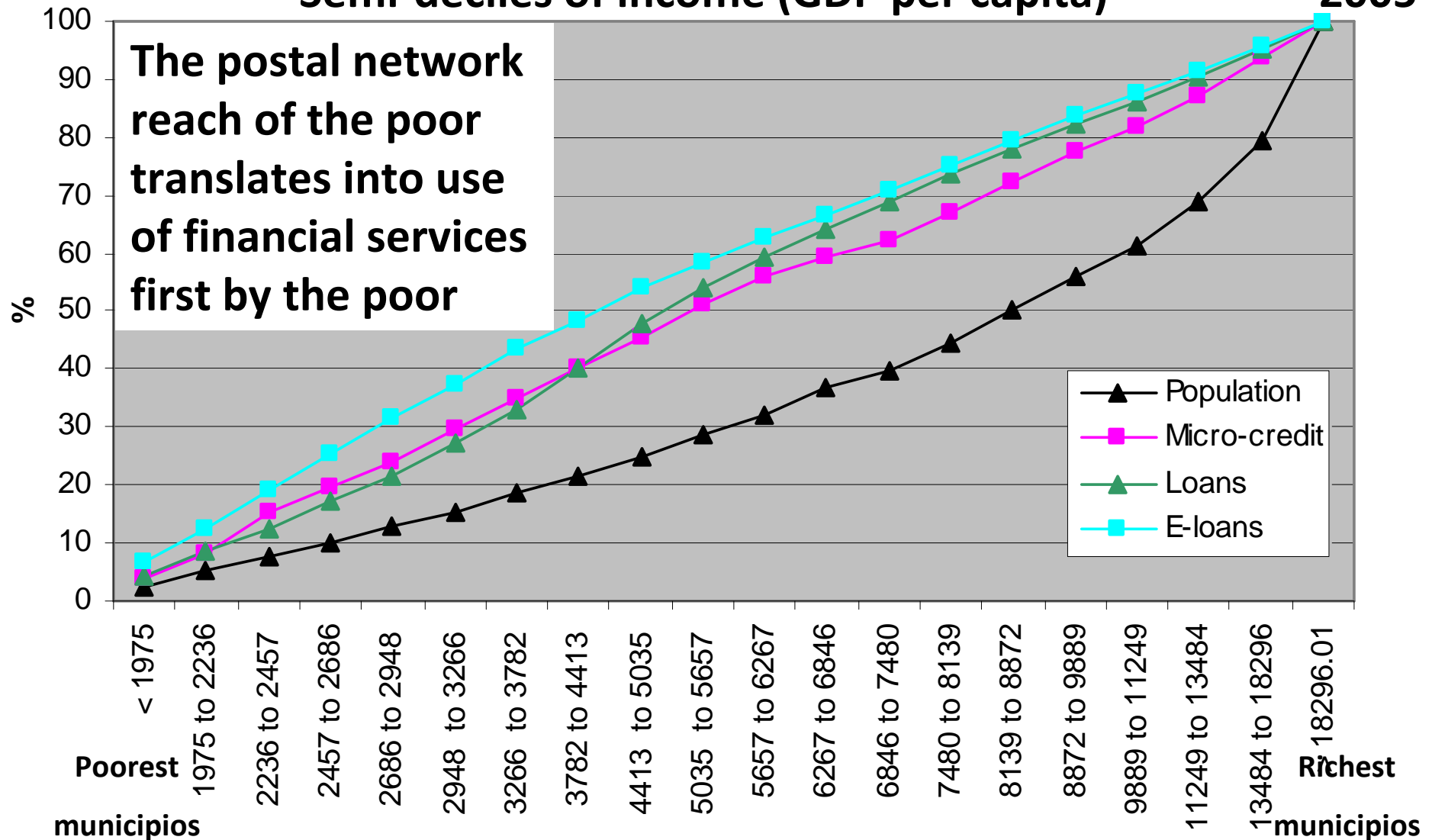




# From Access to Use

Semi-deciles of income (GDP per capita)

2005

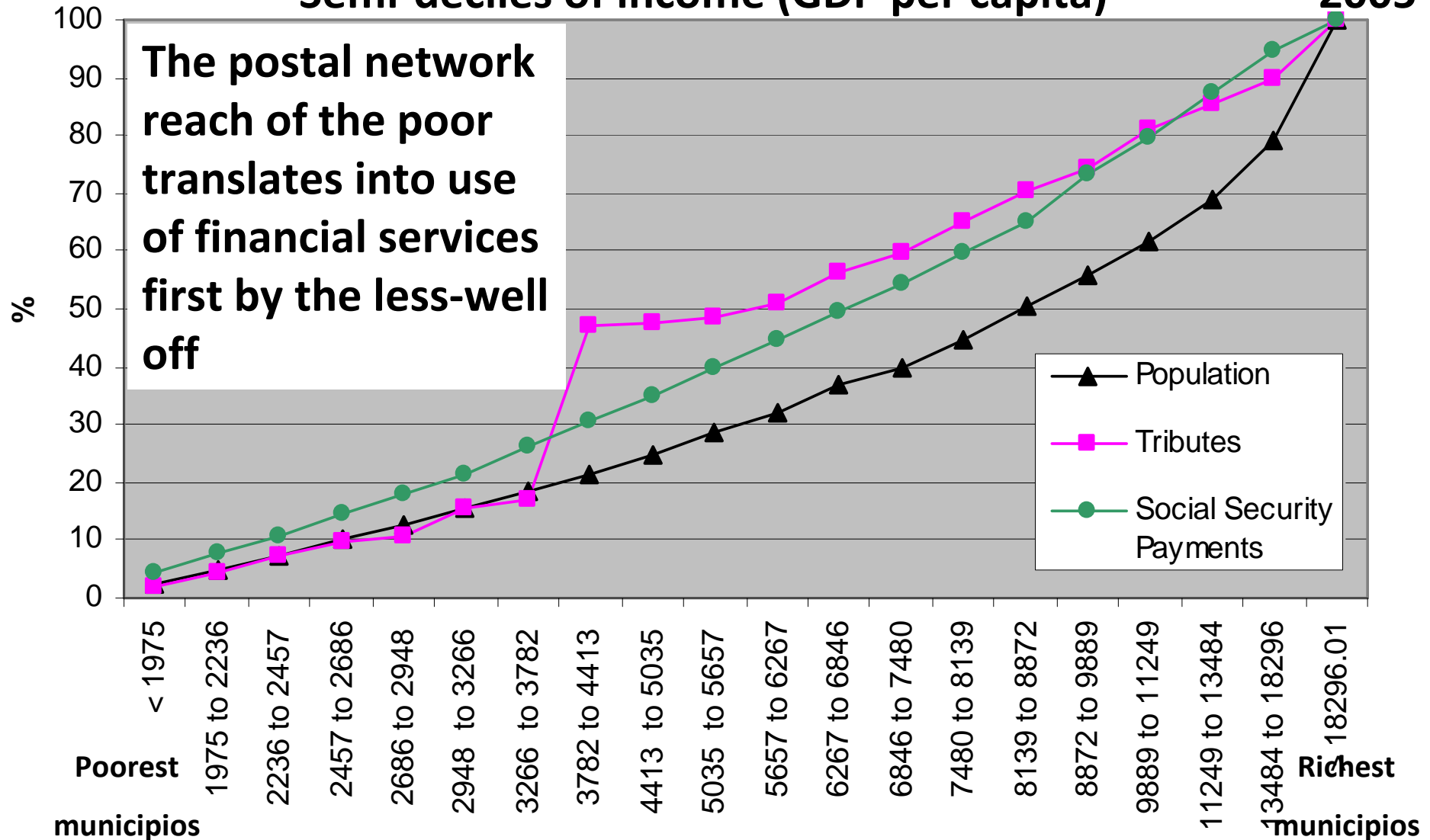




# From Access to Use

### Semi-deciles of income (GDP per capita)

2005





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# What about growth?

## The “one million dollars” question

- Does a higher access to finance and use of financial services by the poor lead to higher economic development and growth?
- Historically challenging to assess impact of financial development on economic development and growth (e.g. Rajan and Zingales, AER, 1999) – particularly at an aggregated level



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# Local Development Effects?

**Without Banco Postal  
in the municipality**

**With Banco Postal  
in the municipality:  
average treatment effect**

◇ up to 163 new firms

◇ up to 201 new firms (+ 23%)

◇ up to 1,209 new jobs

◇ up to 1,381 new jobs (+ 14%)

◇ up to 9 new banks for 100  
municipalities

◇ up to 14 new banks for 100  
municipalities (+ 56%)

◇ Robustness checks: effects more likely if already some degree of financial intermediation (1 to 5 banks before BP opening – not too poor not too rich), “new firms” variable also resist intro of regional controls (+ 17%), no effect found on GDP growth of municipalities because effects on “number of” (new firms, new jobs, new bank branches) rather than added value (relatively small transactions in added value terms for GDP accounting)

◇ Other effects: formalization of the economy, increase in the average size of firms



# Local Development Effects?

<b>BP effects (What? Where?)</b>	<b>Relatively low- income</b>	<b>Intermed- iate income</b>	<b>Relatively high- income</b>
<b>Access</b>	<b>Positive effect</b>	<b>Positive effect</b>	<b>No effect detected</b>
<b>Use</b>	<b>Positive effect</b>	<b>Positive effect</b>	<b>No effect detected</b>
<b>Develop- ment</b>	<b>Formaliza- tion of the economy</b>	<b>More new firms, jobs, banks</b>	<b>No effect detected</b>



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# Thank you