The Political Economy of Brazilian Local Government Taxation:
changing the rules without changing the law for efficiency

Monica Pinhanez

Institute on Municipal Finance and Governance

Munk School of Global Affairs

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Outline

- "Three in One" presentation

  i. General Background

  ii. Brazilian Tax System

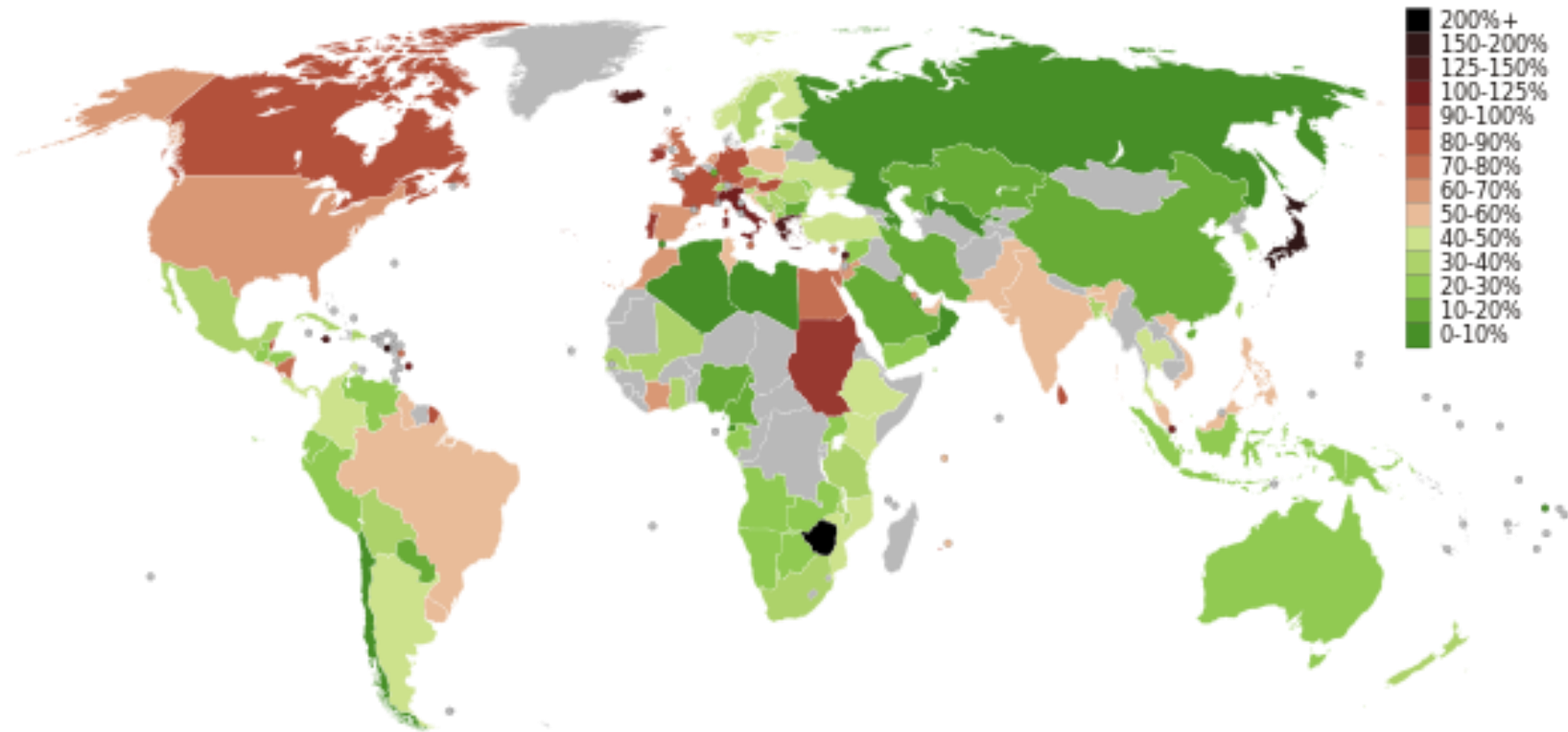 iii. Applied Study: The Political Economy of Local Government Taxation in Brazil

191 million
5th

3.35th million

Public Debt as % GDP
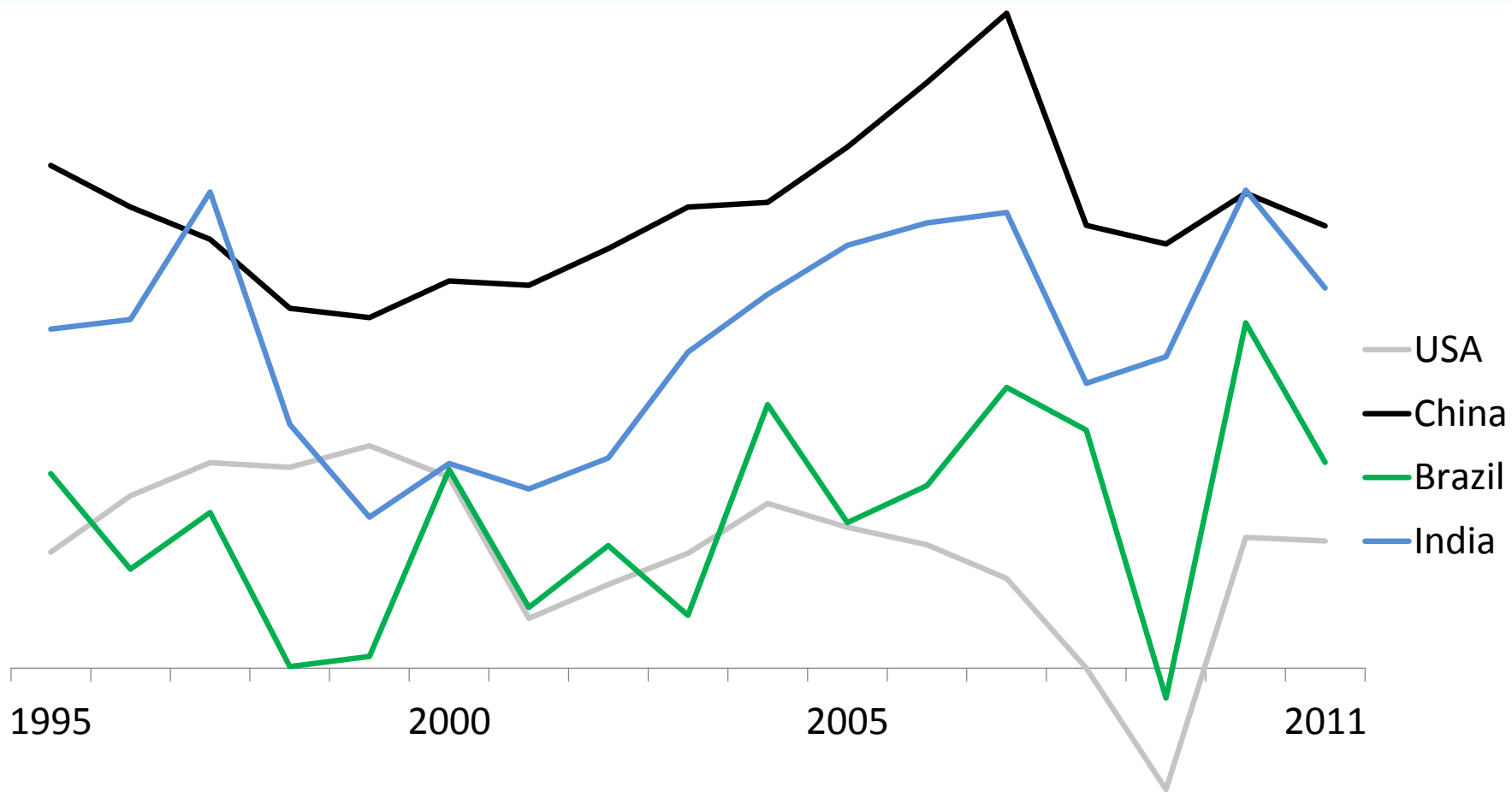
Região Norte
Região Nordeste
Região Sudeste
Região Sul
Região Centro-Oeste

Economic Activity

AGRICULTURE
(Selected commercial items)

- Coffee
- Cocoa
- Sugarcane
- Cotton
- Lumbering and reforestation
- Rice
- Babassu oilseeds
- Brazil nuts
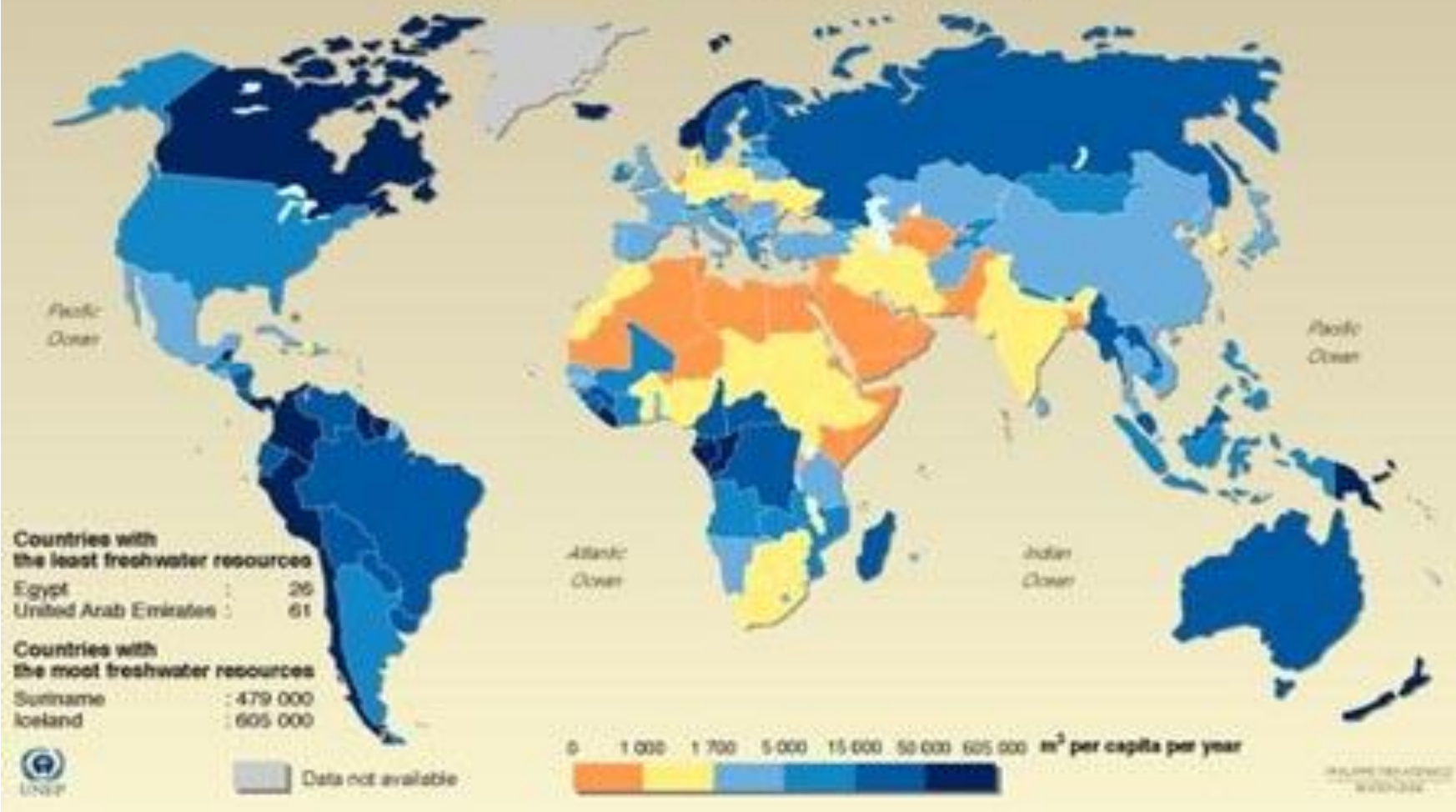- Tobacco
- Rubber
- Corn
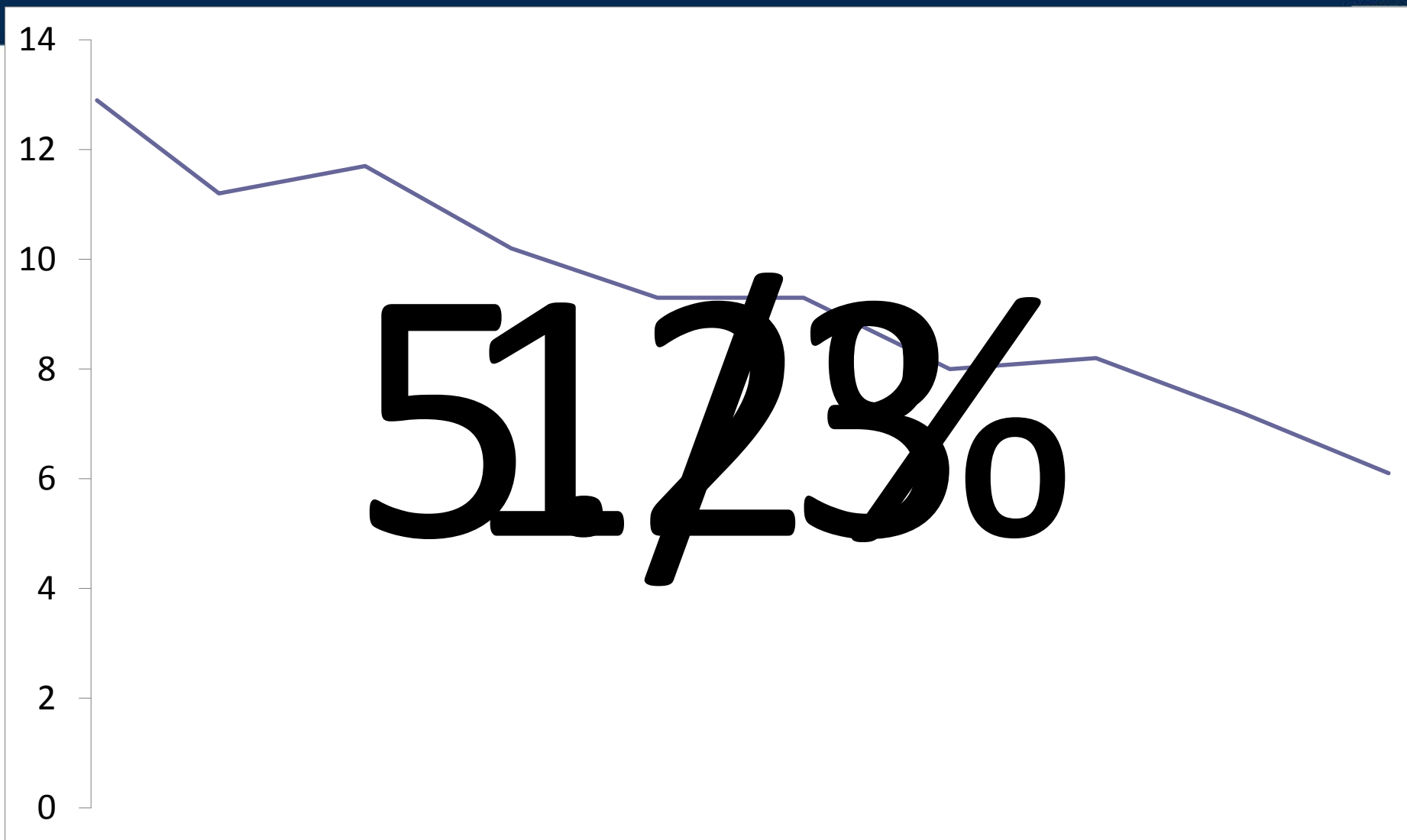- Cattle
- Soybeans

MINES AND DEPOSITS

Fe	Iron	D	Diamonds and other precious stones
Mn	Manganese	Bx	Bauxite
W	Tungsten	C	Coal
B	Beryl	P	Petroleum
Q	Quartz crystals	CT	Columbium-tantalum

INDUSTRY

- Food processing
- Textiles and clothing
- Iron, steel, and ferroalloys
- Industrial machinery and equipment
- Transportation equipment
- Rubber products
- Chemical-pharmaceutical
- Forestry products
- Cement
- Petroleum refining
- Shipyard
- Major powerplant
- Telecommunications and electronic equipment
- Petrochemical fertilizer

Availability of Freshwater in 2000
Average River Flows and Groundwater Recharge

Countries with
the least freshwater resources
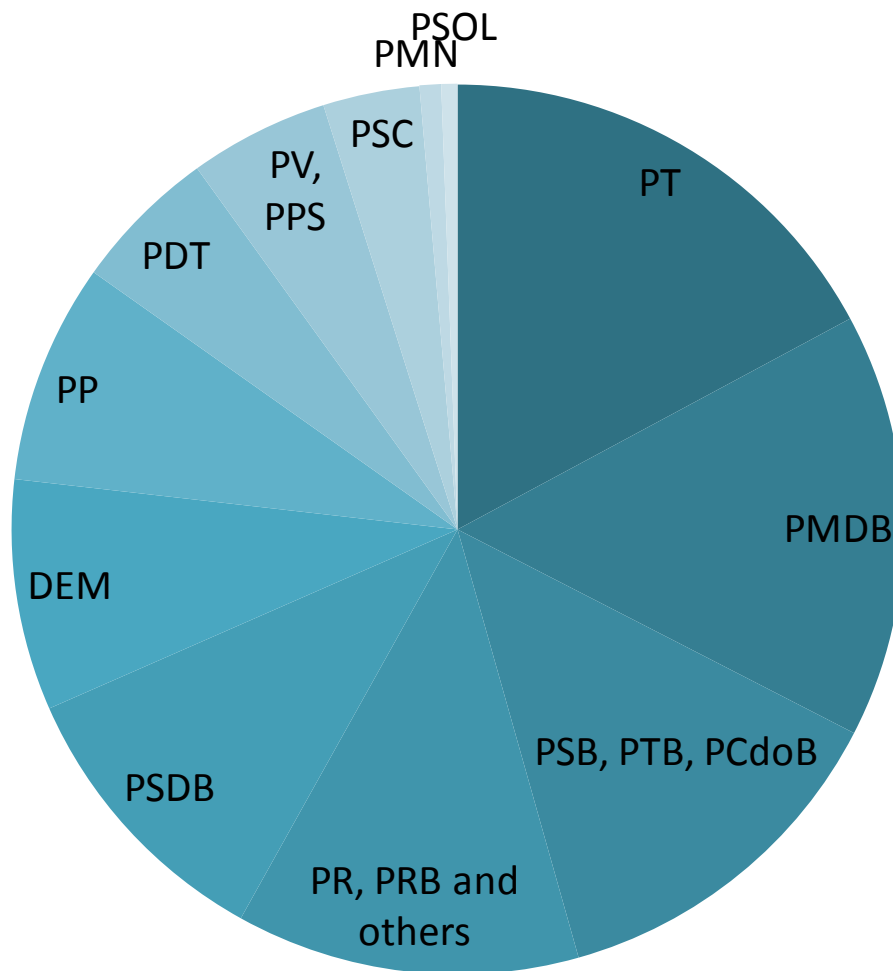
Egypt : 26
United Arab Emirates : 61

Countries with
the most freshwater resources

Suriname : 479 000
Iceland : 605 000

Data not available

0   1 000   1 700   5 000   15 000   50 000   605 000   m³ per capita per year

58113

60.6%

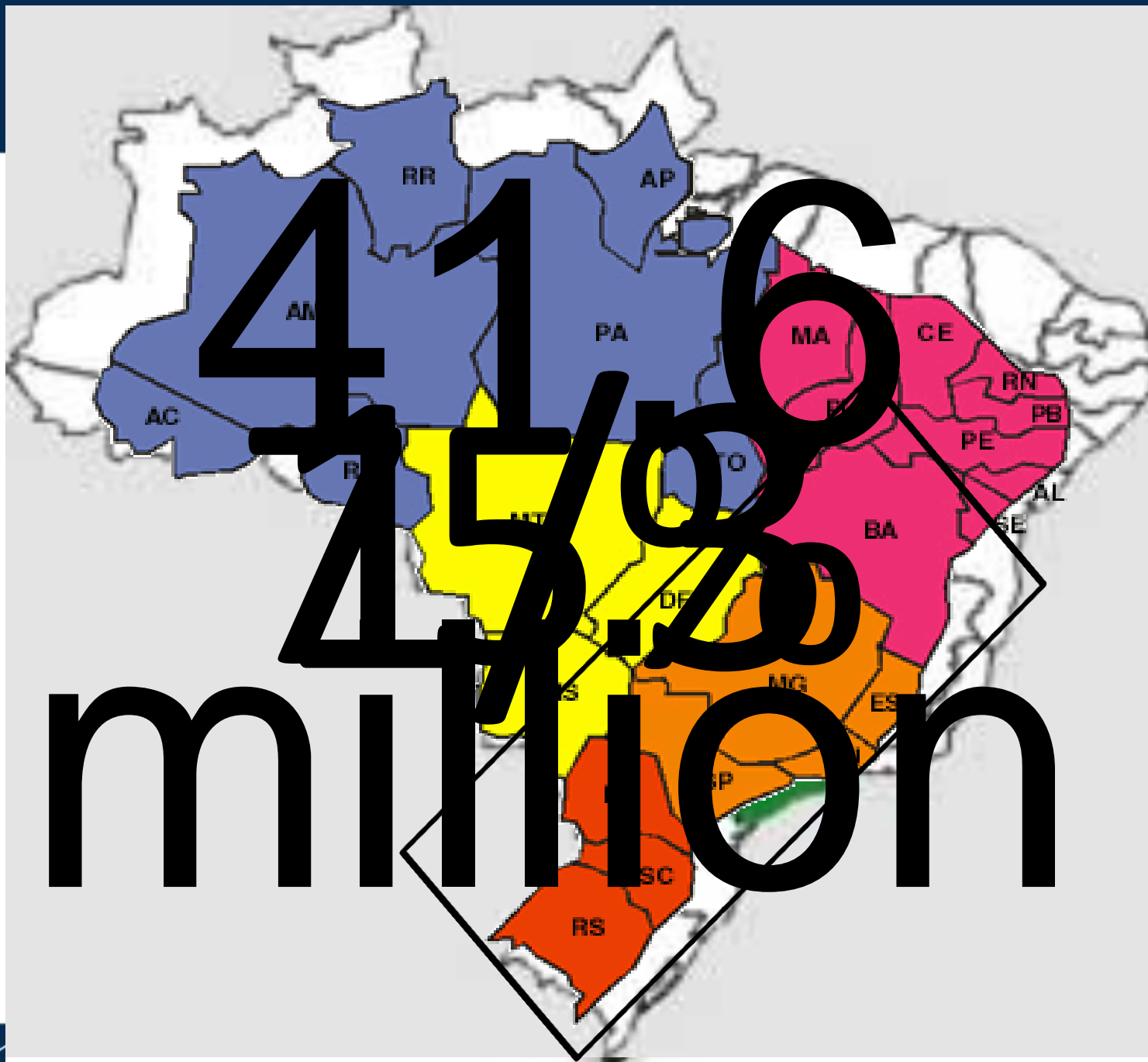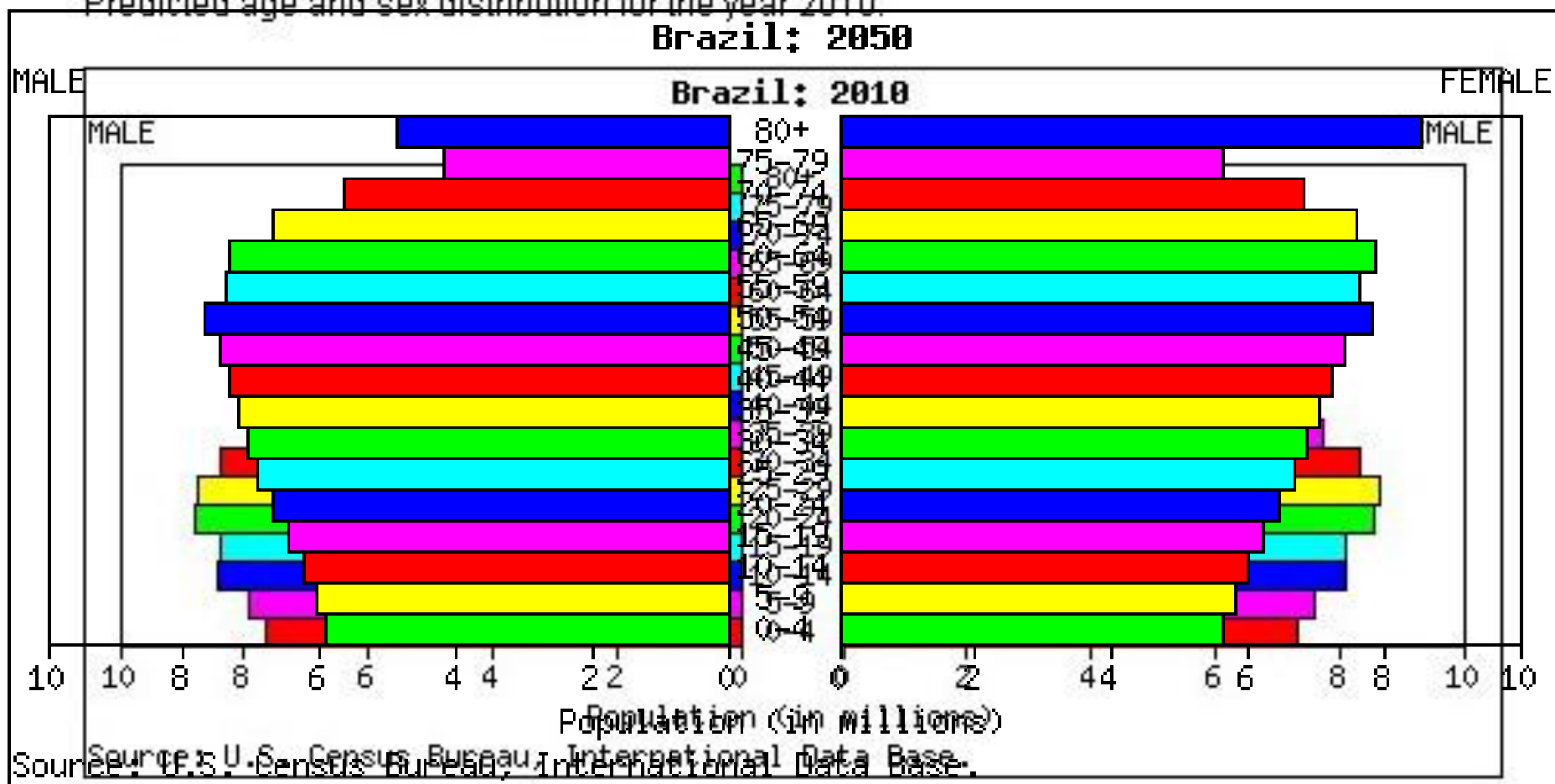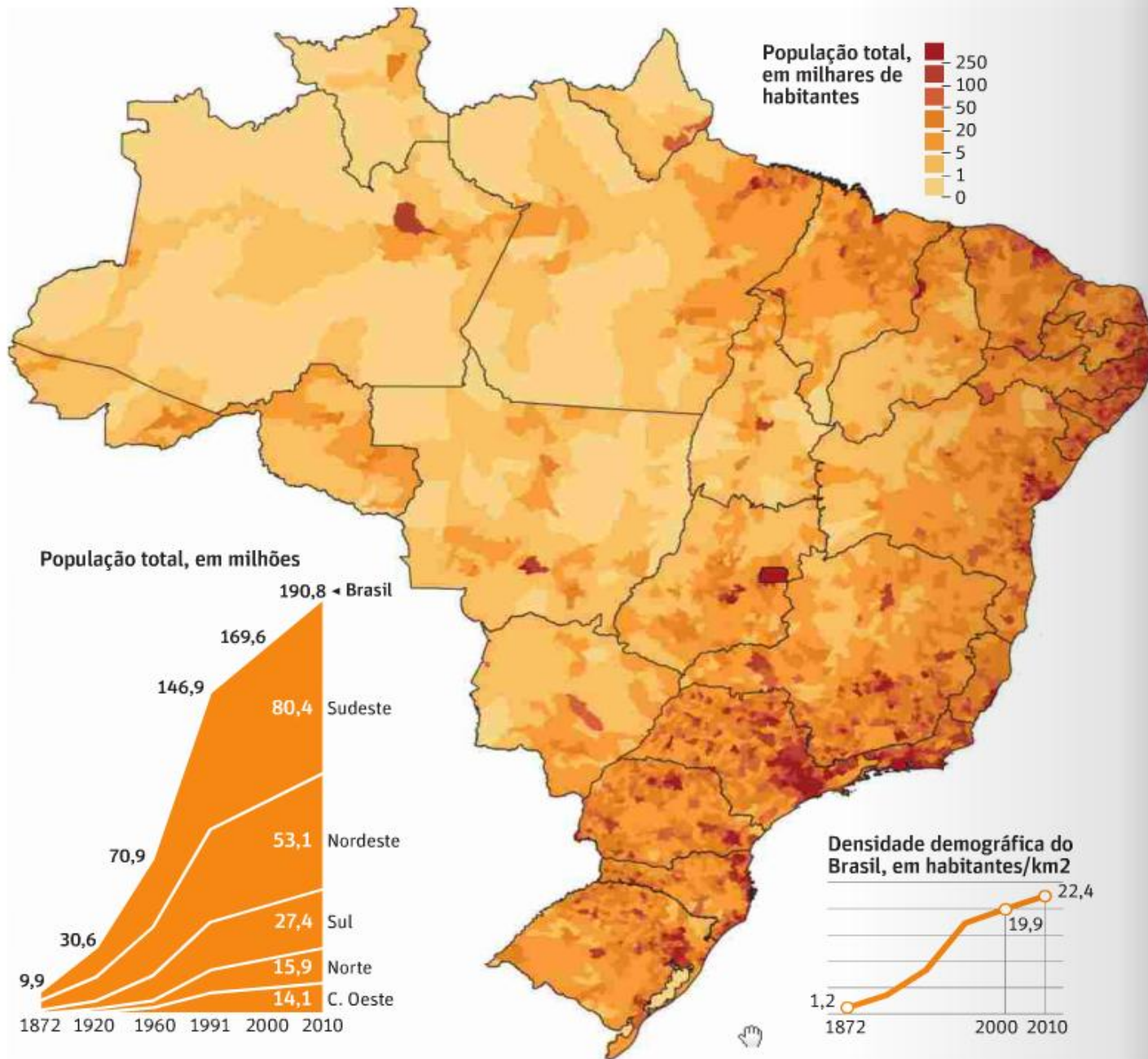# Brazil Population Pyramid for 2010

Predicted age and sex distribution for the year 2010:

Brazil: 2050

Brazil: 2010

MALE   FEMALE

População total, em milhares de habitantes
- 250
- 100
- 50
- 20
- 5
- 1
- 0

População total, em milhões

190,8 ◄ Brasil
169,6
146,9
80,4 Sudeste
70,9
53,1 Nordeste
30,6
27,4 Sul
9,9
15,9 Norte
14,1 C. Oeste

1872 1920 1960 1991 2000 2010

Densidade demográfica do Brasil, em habitantes/km2

22,4
19,9
1,2

1872   2000 2010

8,5%

Gap Between Rich and Poor

Gap between Rich and Poor for Selected Countries
(% share of income)

	Lowest 20% of Income Groups	Highest 20% of Income groups
Sierra Leone	1.1	63.4
Brazil	**2.2**	**64.1**
Mexico	3.5	57.4
United States	4.2	46.9
Germany	8.2	38.5
Sweden	9.6	34.5

Source: http://www.infoplease.com/ipa/A0908770.htm1
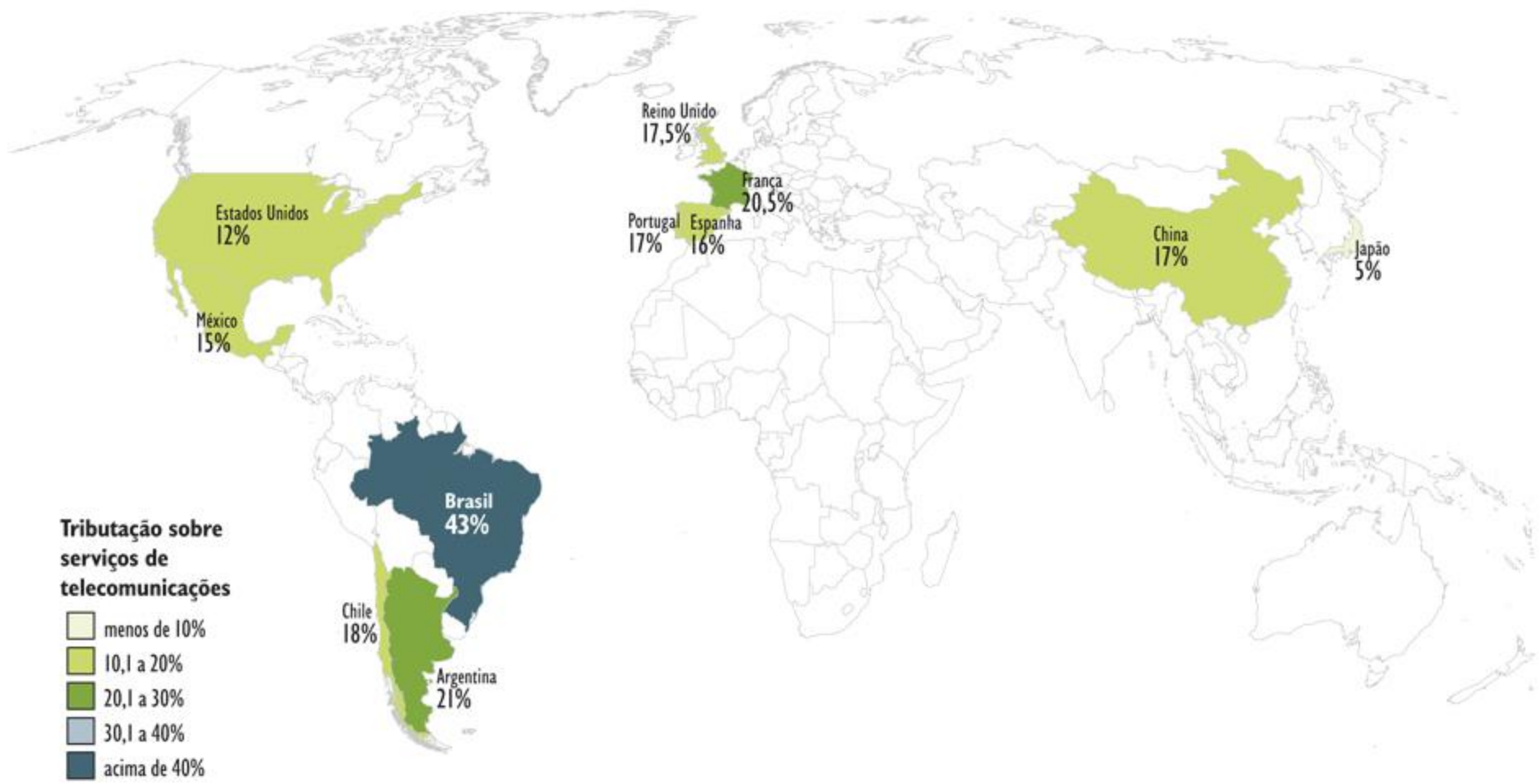
ii. Tax System

Tax Revenues as a Percent of Gross Domestic Product
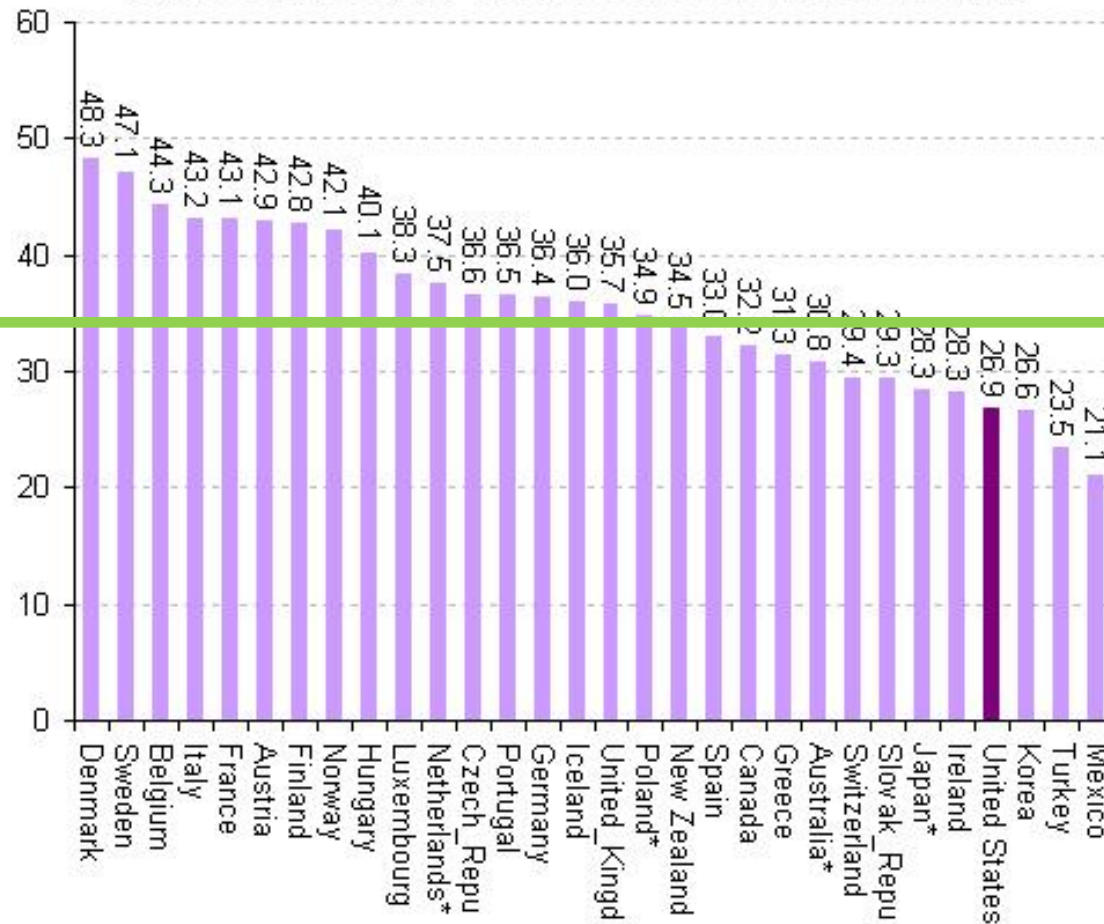
BRAZIL = 34

Note: Numbers for Netherlands, Poland, Australia and Japan are for 2007.
All other figures are for 2008.

Tax Burden Telecoomunications

Reino Unido
17,5%

França
20,5%

Portugal 17%   Espanha 16%

Estados Unidos
12%

China
17%

Japão
5%

México
15%

Brasil
43%

Tributação sobre serviços de telecomunicações

Chile
18%

Argentina
21%

- menos de 10%
- 10,1 a 20%
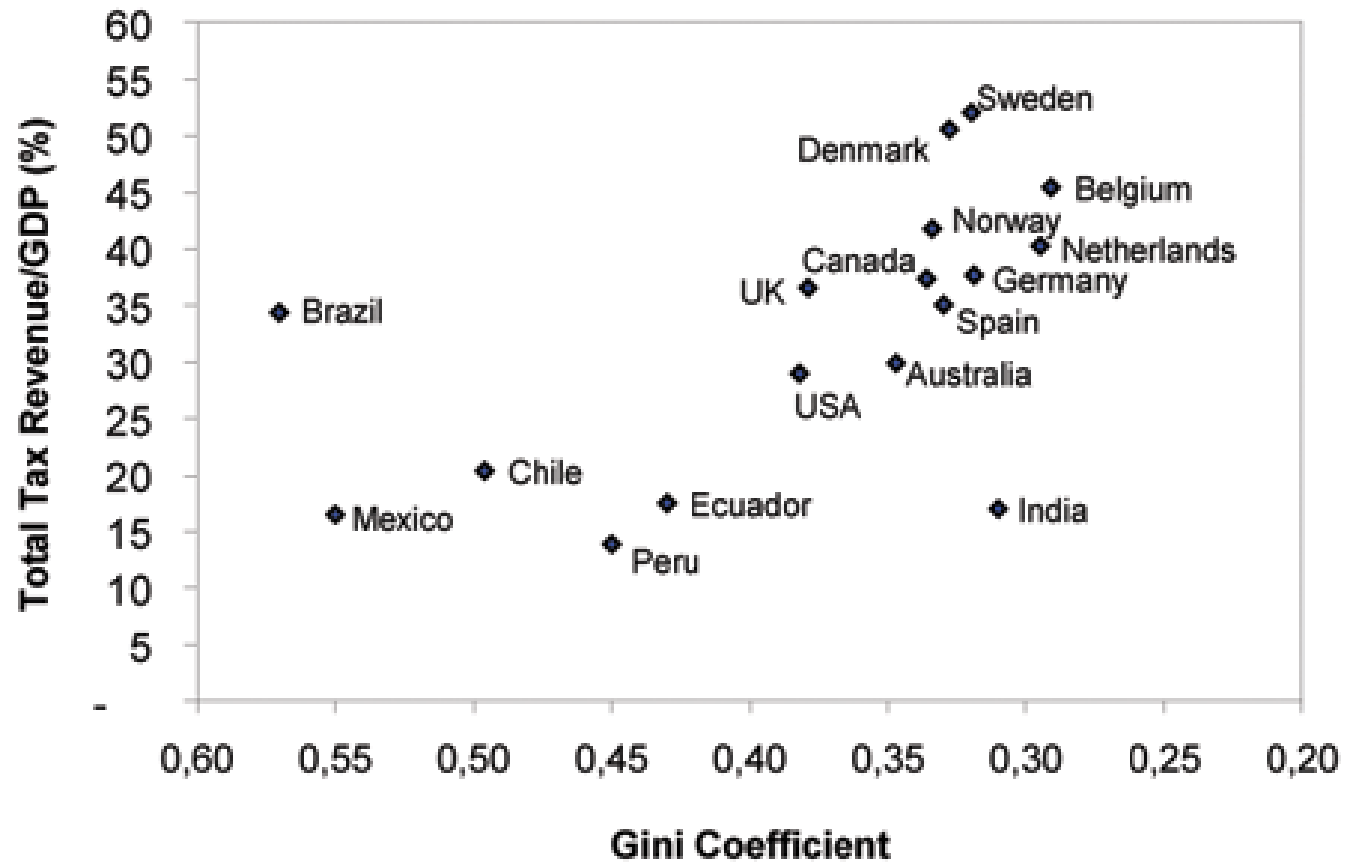- 20,1 a 30%
- 30,1 a 40%
- acima de 40%

Fonte: Carga tributária. Teleco. Carga tributária efetiva. Associação Nacional das Operadoras Celulares (Acel)
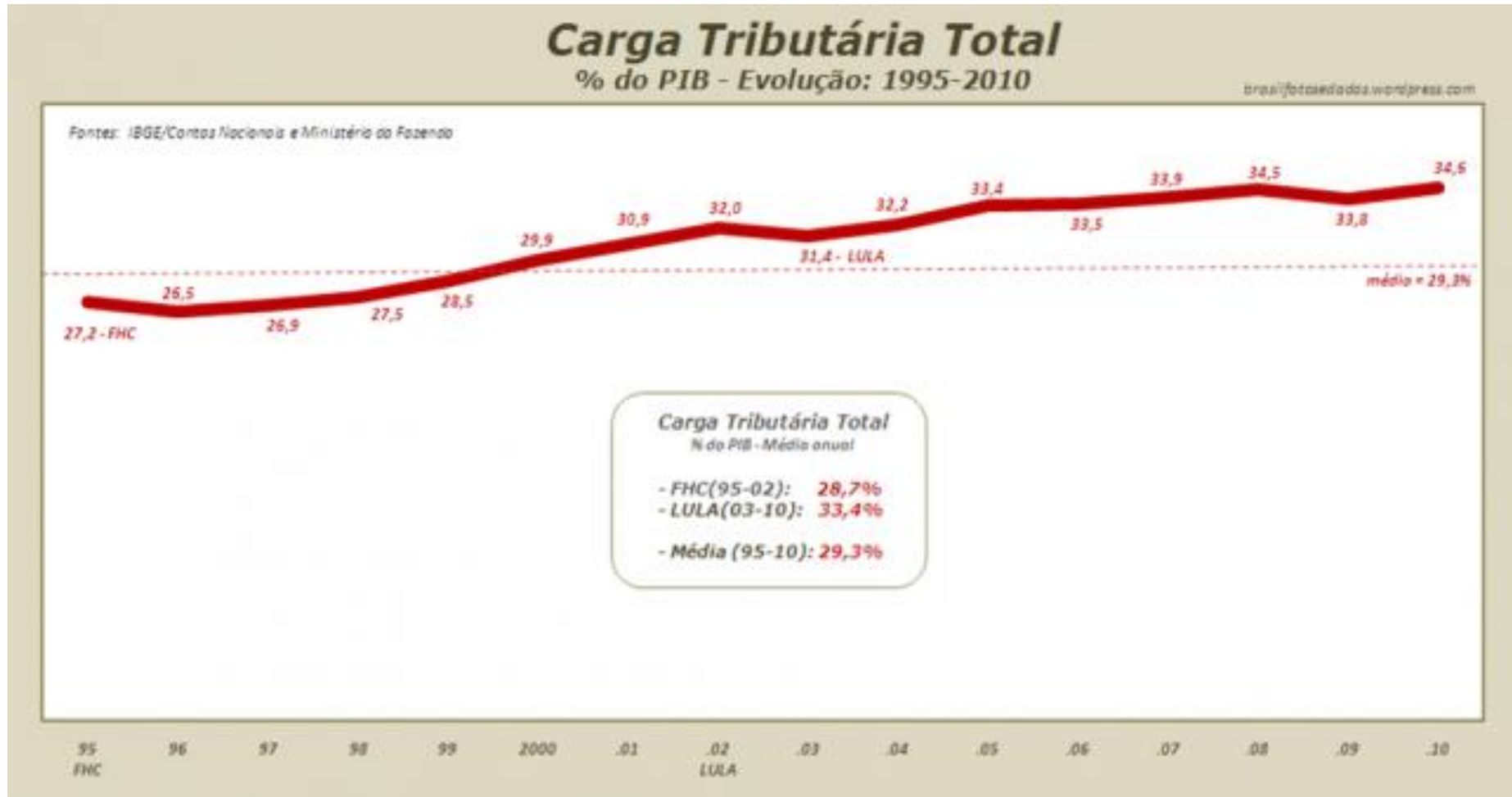
TAX BURDEN EVOLUTION
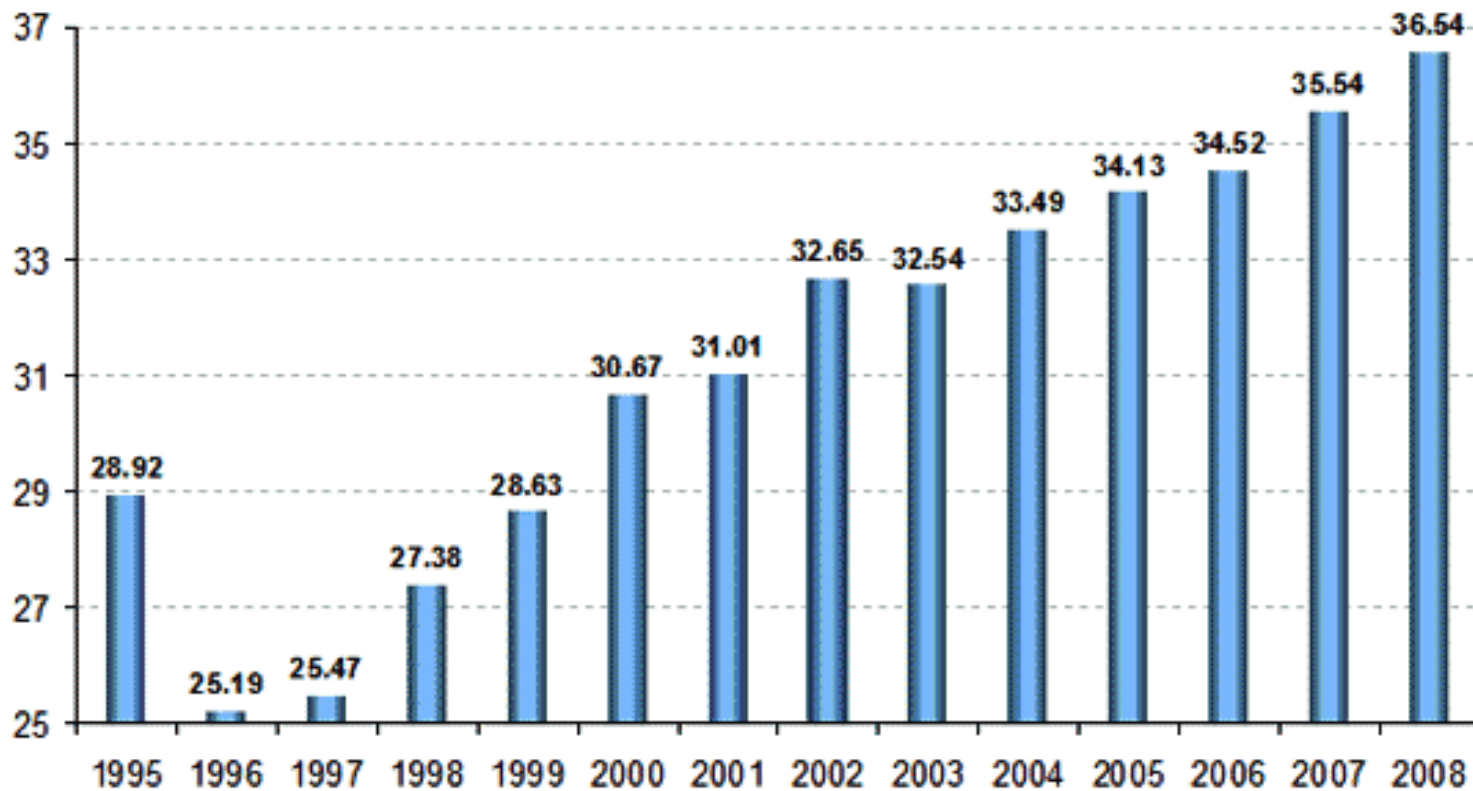
Fonte: IBPT

Tax Burden and Gini

Tax Burden - % GDP

Carga Tributária Total
% do PIB – Evolução: 1995–2010

Região Norte
Região Nordeste
Região Sudeste
Região Sul
Região Centro-Oeste

RECEITA TRIBUTÁRIAS **(% of Tax Revenue)**

Federal	**69.72**
States	**26.06**
Municipalities	**4.22**
TOTAL	**100.00**

Fonte: Copat/SRF

Tax Structure

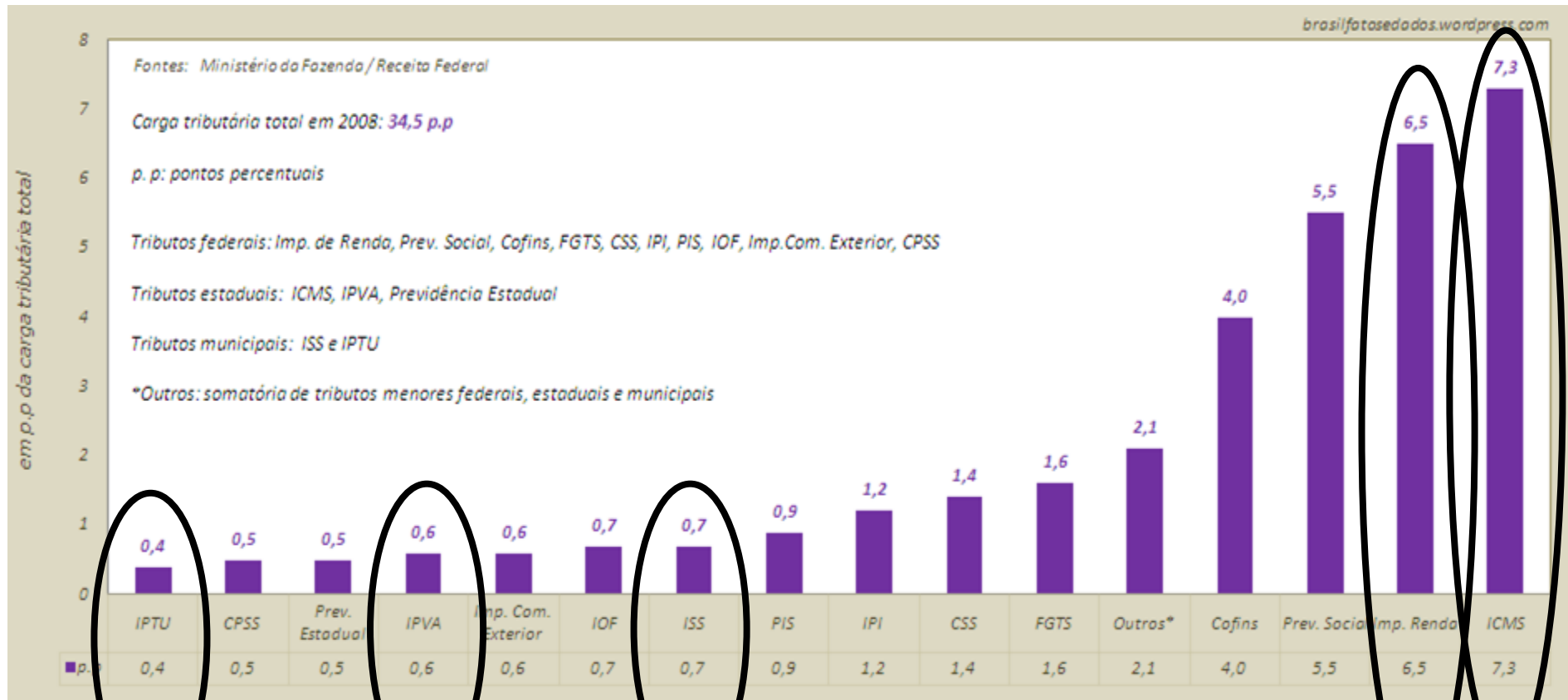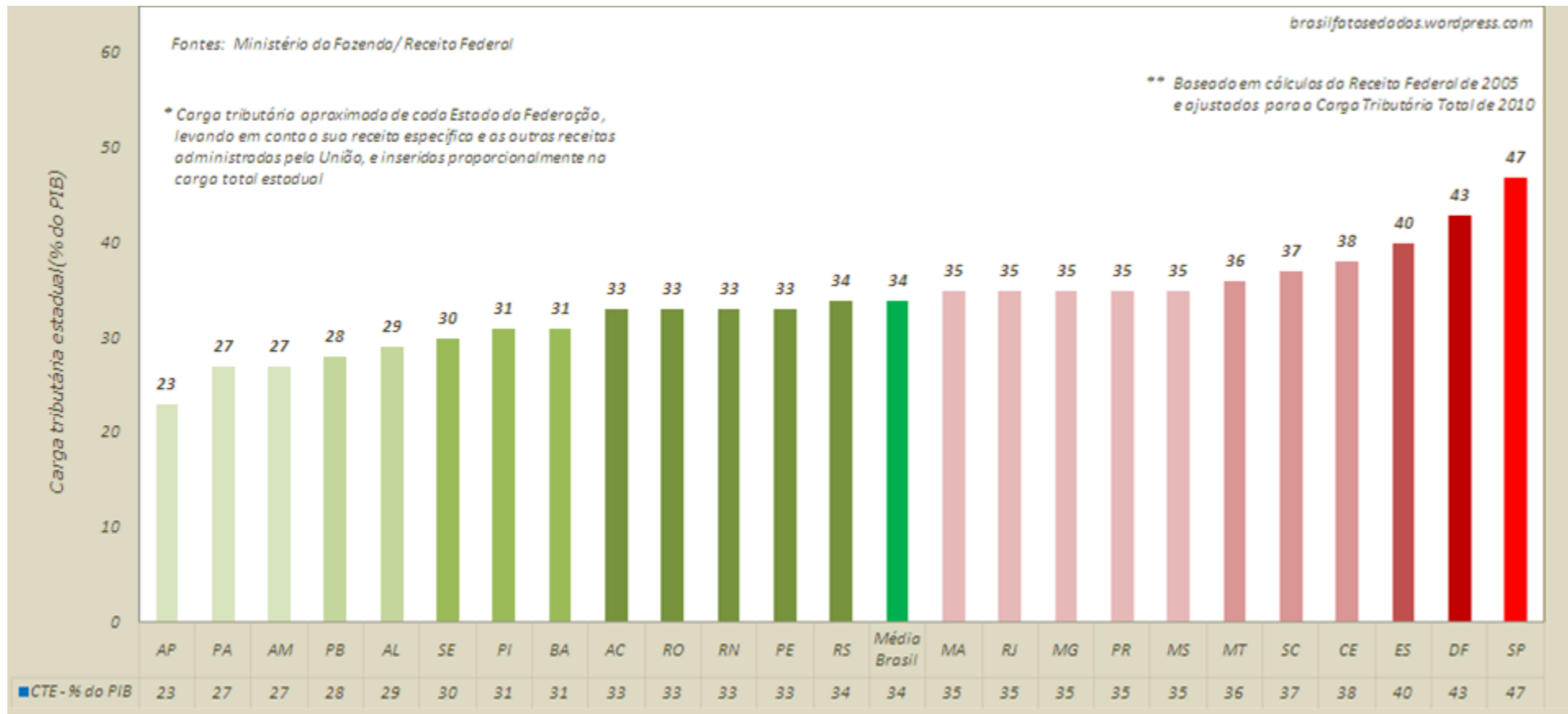| Member of the Federation	MAJOR TAX -% of total tax revenue in 2008	
FEDERAL GOVERNMENT	foreign trade - imports (II) and exports (IE) of goods and services	1.66
	income and earnings of any nature (IR)	18.84
	industrialized products (IPI)	3.74
	financial operations (IOF)	1.95
	rural property (ITR)	0.04
STATES AND FEDERAL DISTRICT	inheritance and donation of any property and rights (ITCD)	0.14
	operations on the movement of goods and the provision of interstate and intermunicipal transportation and communication (ICMS)	21.28
	vehicle ownership (IPVA)	1.67
MUNICIPALITIES AND FEDERAL DISTRICT	estate and urban land property tax (IPTU)	1.21
	inter vivos transmission (ITBI)	0.38
	on services (ISS), except the base of the ICMS	2.12
	Charges - garbage collection, license for operation, etc.	0.32

Tax Composition
## % of total tax revenue
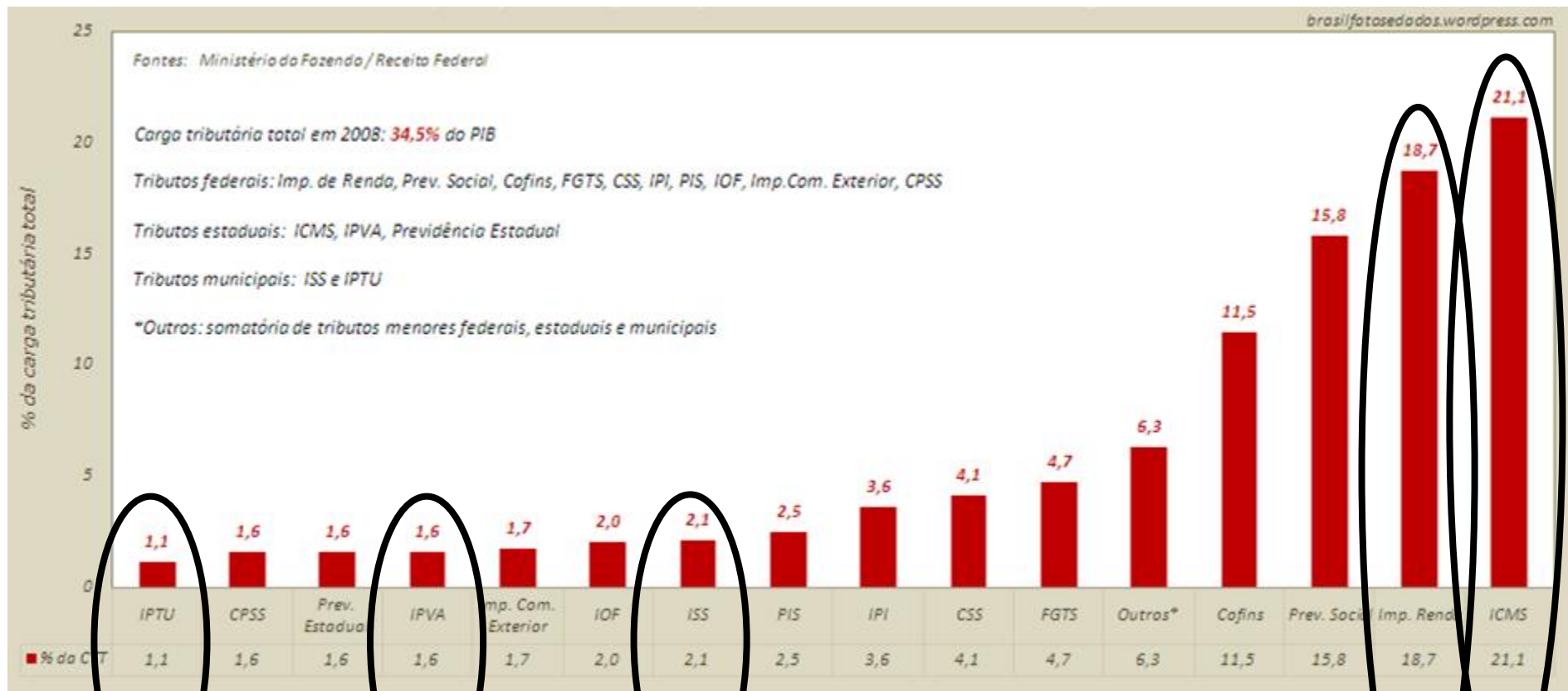
Tax Structure - % Total Tax Burden

Fontes: Ministério da Fazenda / Receita Federal

Carga tributária total em 2008: 34,5 p.p

p. p: pontos percentuais

Tributos federais: Imp. de Renda, Prev. Social, Cofins, FGTS, CSS, IPI, PIS, IOF, Imp.Com. Exterior, CPSS

Tributos estaduais: ICMS, IPVA, Previdência Estadual

Tributos municipais: ISS e IPTU

*Outros: somatória de tributos menores federais, estaduais e municipais

brasilfotosedados.wordpress.com

	IPTU	CPSS	Prev. Estadual	IPVA	Imp. Com. Exterior	IOF	ISS	PIS	IPI	CSS	FGTS	Outros*	Cofins	Prev. Social	Imp. Renda	ICMS
p.p	0,4	0,5	0,5	0,6	0,6	0,7	0,7	0,9	1,2	1,4	1,6	2,1	4,0	5,5	6,5	7,3

State Tax - % GDP

Municipal Own Revenues

| Local Taxes Collection	US$ billion	Percent of GDP	Percent of Total Collected
GDP	793,9		
Total (municipal taxes)	**17,1**	**2,16%**	**100,0%**
Tax on services	5,8	0,73%	33,7%
Urban property tax	4,1	0,52%	24,2%
Social security contributions (servants)	1,4	0,18%	8,3%
Fees	1,2	0,15%	6,8%
of which: fees for public services	0,8	0,10%	4,7%
Income tax withheld at source	1,0	0,13%	6,0%
Contribution for public illumination	0,8	0,10%	4,7%
Tax on transfer of real estate	0,8	0,10%	4,7%
Other	2,0	0,25%	11,5%

Intergovernmental Transfers
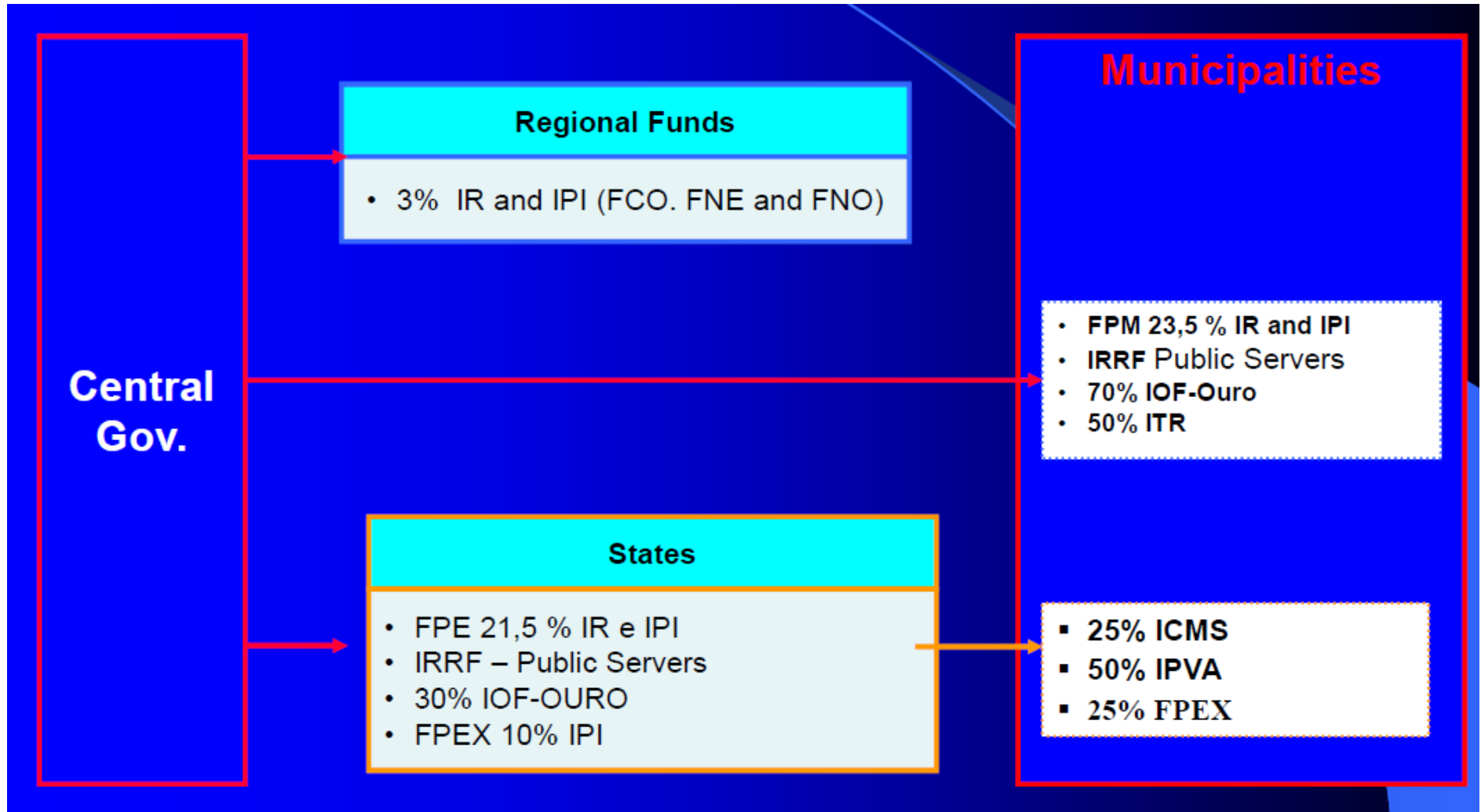
Municipal Revenue Distribution
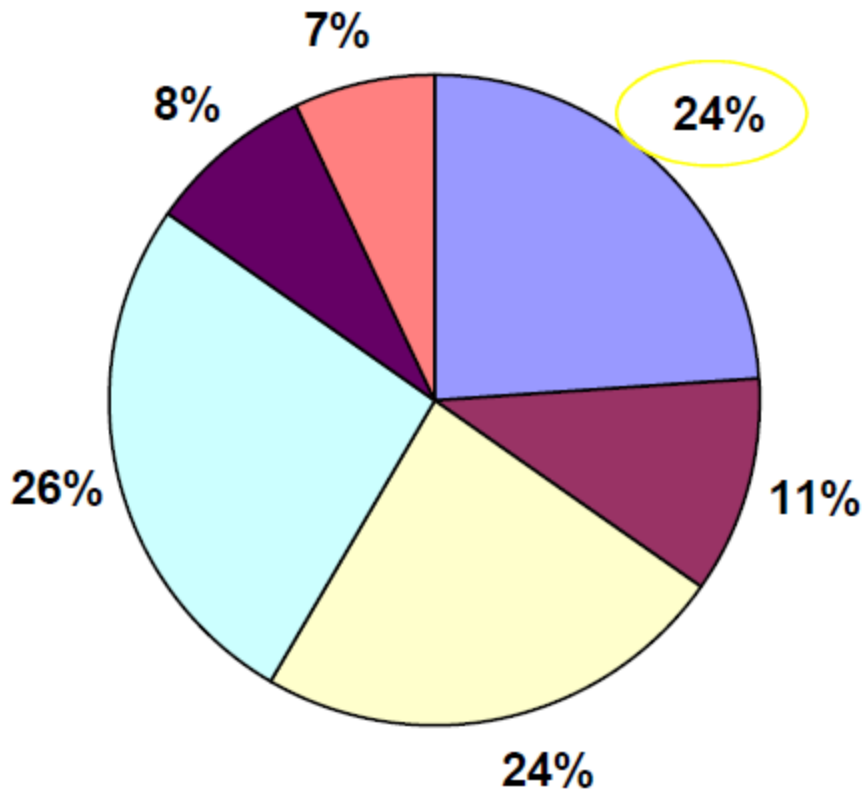
Legend:
- Own Tax Collect
- Own (others)
- Shared Tax
- Tax Transfers (mandatories)
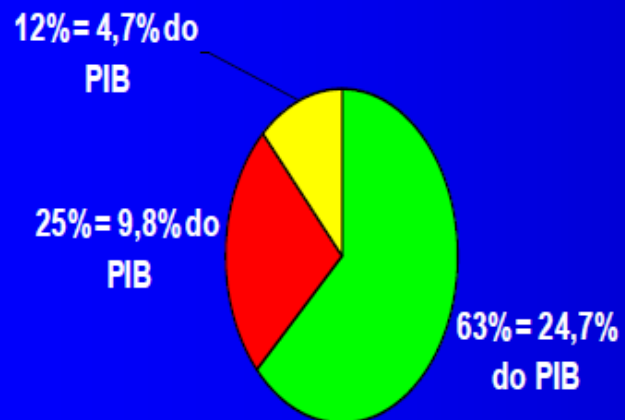- Health System (regular grants)
- Other Transfers

Pie chart values: 24%, 11%, 24%, 26%, 8%, 7%

Local Government Transfers Rev
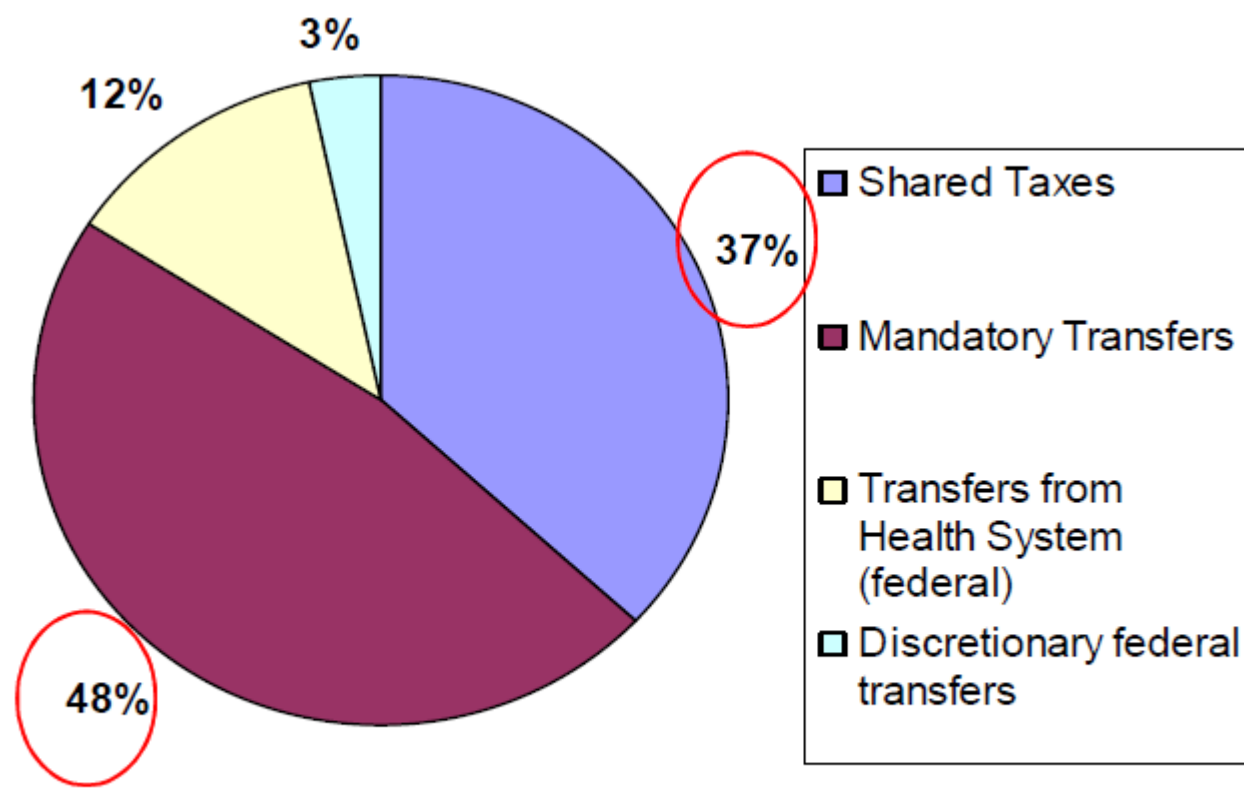
Public Expenditure by Gov't Level
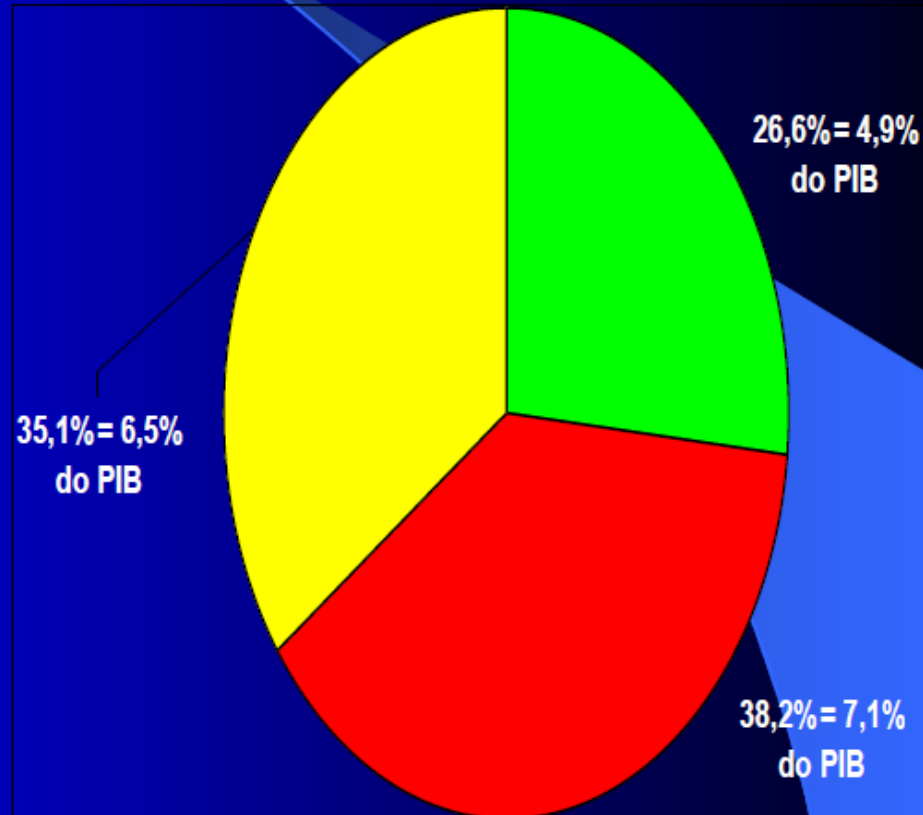
iii. Applied Research

- To understand under what conditions tax administration reforms at the local level not only improve tax collection, particularly property tax, but also service effectiveness

- To understand the conditions and elements which contribute to strengthening public bureaucracies and to making them effective
  - Strategies related to understand learning and professionalization of tax officials

Motivation

- Scarce research on subnational governments
  - Paucity of credible and consistent data
- Recent consistent and successful tax modernization programs at the central, state and local level
  - Census data
  - IDB Data
  - BNDES

- All the states faced debt and fiscal crisis
- The Ministry of Finance and the IDB supported AR for all States
- Starting in 1997, all 27 Brazilian State Tax Administration Bureaus (STABs) went through restructuring
  - Detailed operation
    - Mission: To be a leading tax administration, deliver good service with well trained and dedicated staff
    - Goals: To increase tax collection, to provide excellent service to taxpayers, to increase voluntary compliance, to have highly motivated staff, to be cost effective, to leverage on technology

Região Norte
Região Nordeste
Região Sudeste
Região Sul
Região Centro-Oeste

Modernization Results (Selected States): Increased Tax Revenue

State Tax Administration
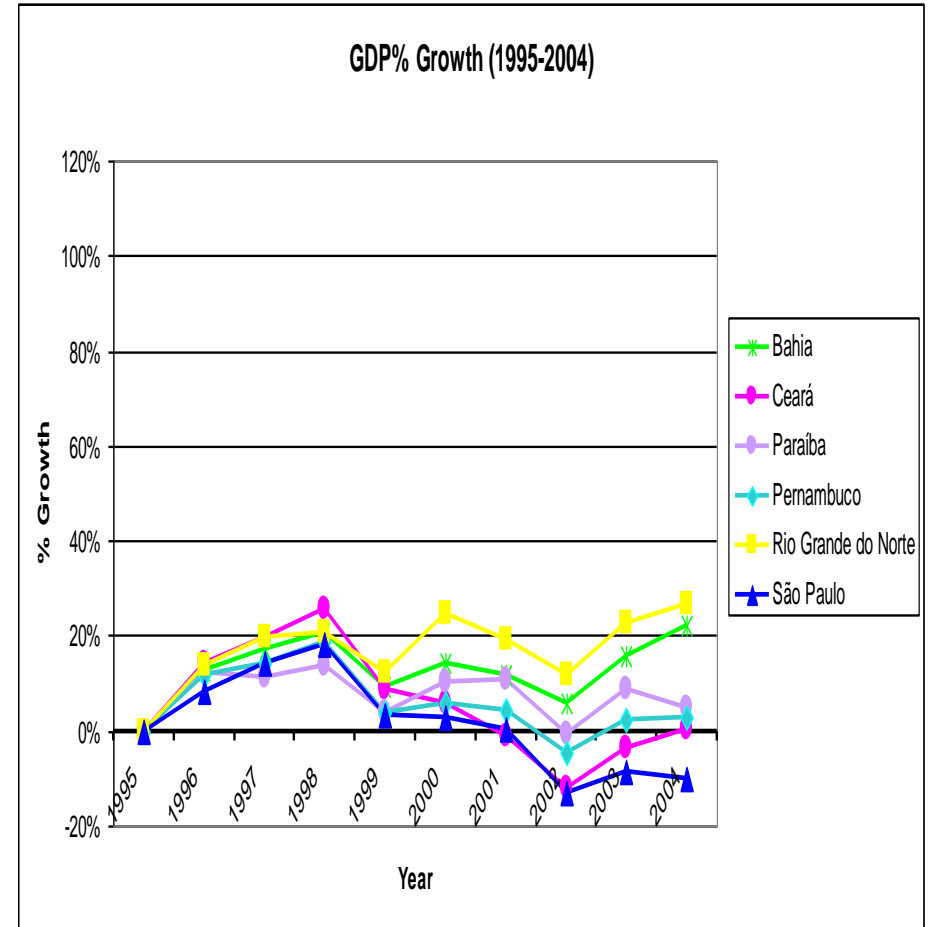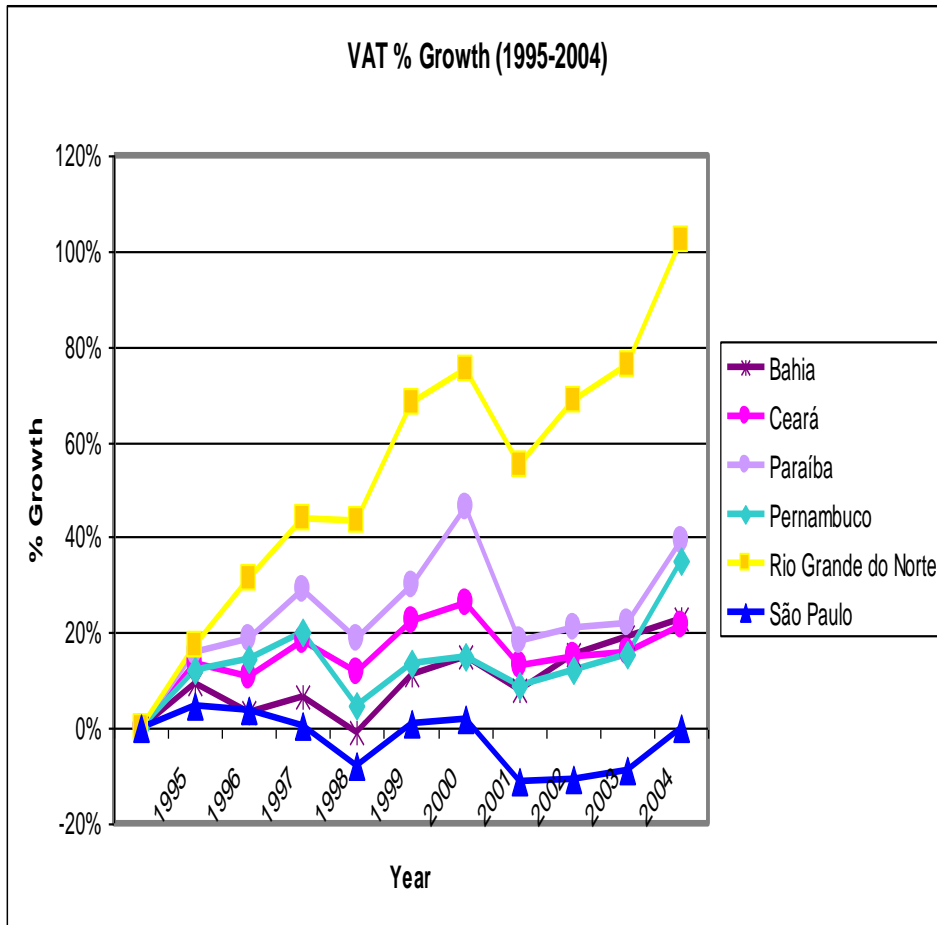
Findings: Combined Strategy(ies)

Strategy I: A New Cognition for the Sector : from territories to production chains and economic segments

Strategy II: Computerization

Strategy III: Capacity Building

This strategy led to

$\Rightarrow$ Capturing sectors that were not paying

$\Rightarrow$ Professionalization and specialization of tax collectors—training

– Changing tax management =>

- credibility among tax payers (business sector)
- Teams, specialization of industry segments (rationalized management structure and scientific approach)

– Newly forged ties between private/public

- Business associations
- Unions and professional associations

– Client perspective

Current Research
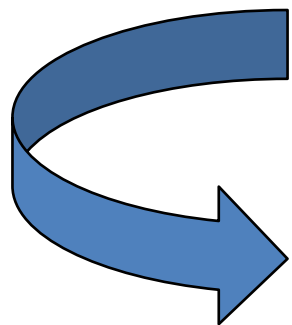
I. Case Studies: Brazilian Local Tax Administration Bureaus (STABs)

    I. 5,561 municipalities

        I. PMAT – BNDES – 321 municipalities

        II. PNAFE – BID – 426 municipalities

II. Tax Structure at Local Level

    I. Urban Property Tax

    II. Services Tax

    III. Transfer Tax

Methodology

- **Identify local governments** that have undergone administrative reforms in the tax sector

- **Collect data and information** on tax administration performance in tax collection and tax service quality

- **Suggest an explanation** for performance in tax collection and tax service quality

- **Propose a hypothesis explanation** and model to fit data that accounts for the aforementioned performance

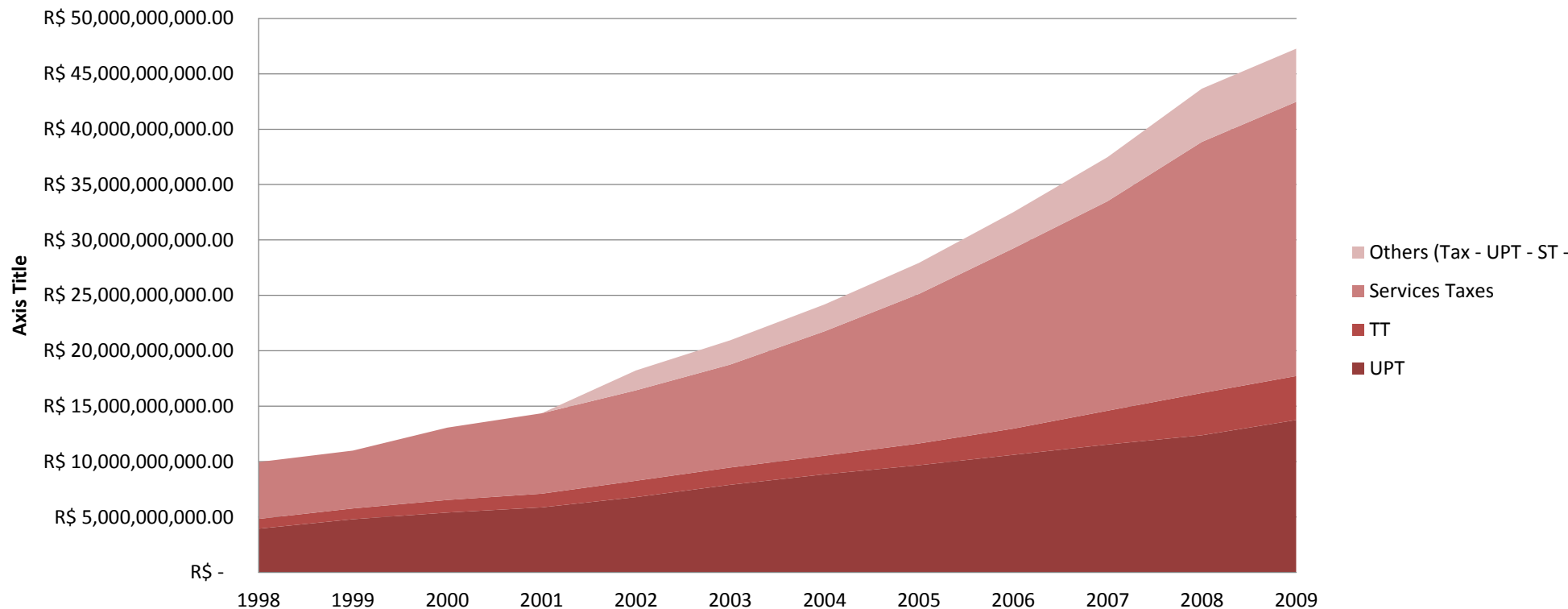- **Inform and disseminate strategies** that generate better performance

Local Government Revenues

Tax Share on Local Governments Total Revenue 98 / 09
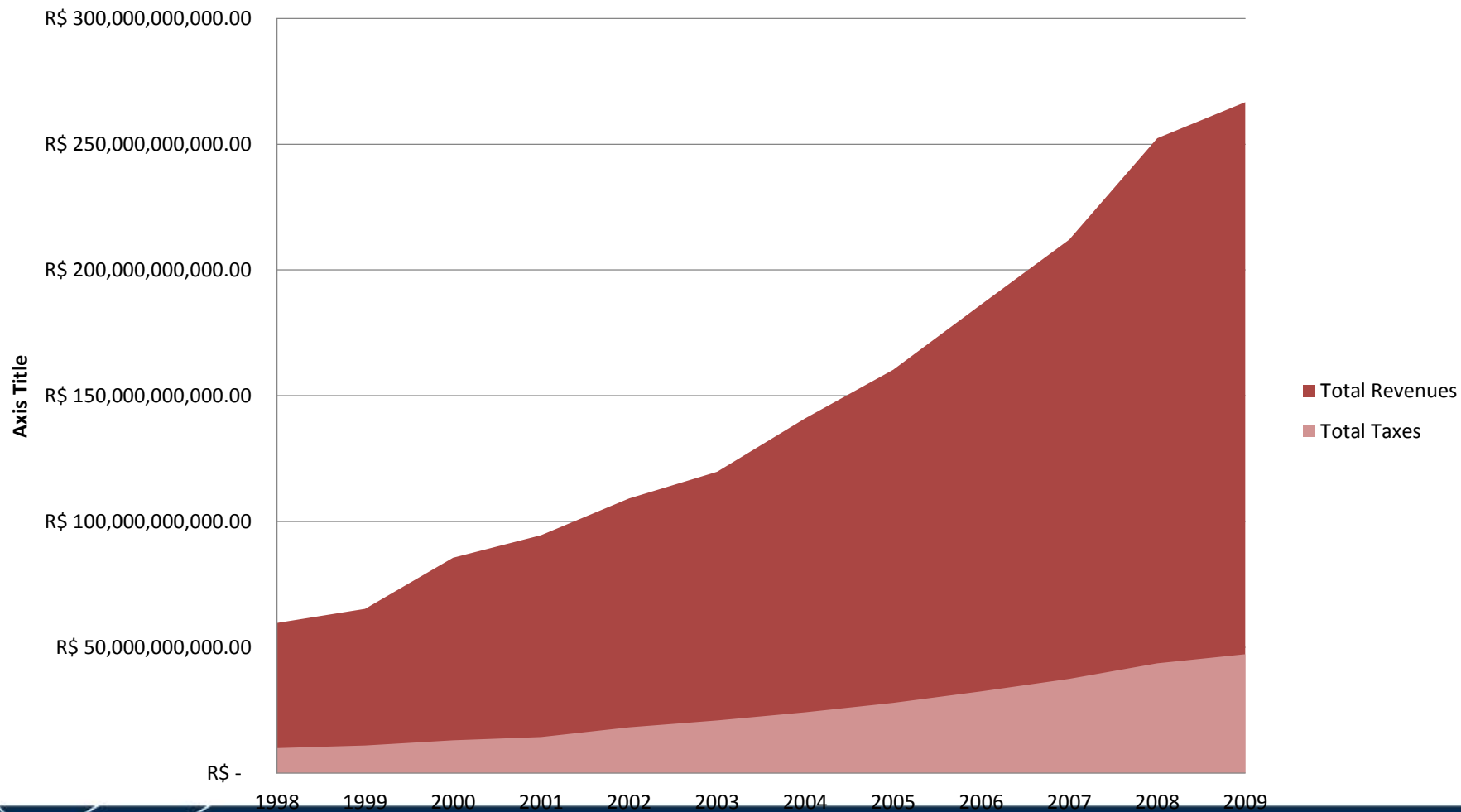
Municipal Taxes


Municipal Tax Share 98 / 09

$$Y_{i,t} = P_{i,t} + X_{i,t} + t + i + i,t$$

where $Y_{i,t}$ is tax collection per capita (total taxes, IPTU or ISS) in municipality i and year t, $P_{i,t}$ a dummy equal to 1 if municipality i is in a PMAT program in year t, $X_{i,t}$ a set of time varying controls, t are year fixed effects, and i a municipality fixed effects

Controls include GDP per capita, the share of agriculture and services in GDP (from IBGE), population and political variables (political competition, mayor's party affiliation, and whether the mayor is facing a term change

Evolution of taxes per capita in treated and control municipalities, 1998-2008
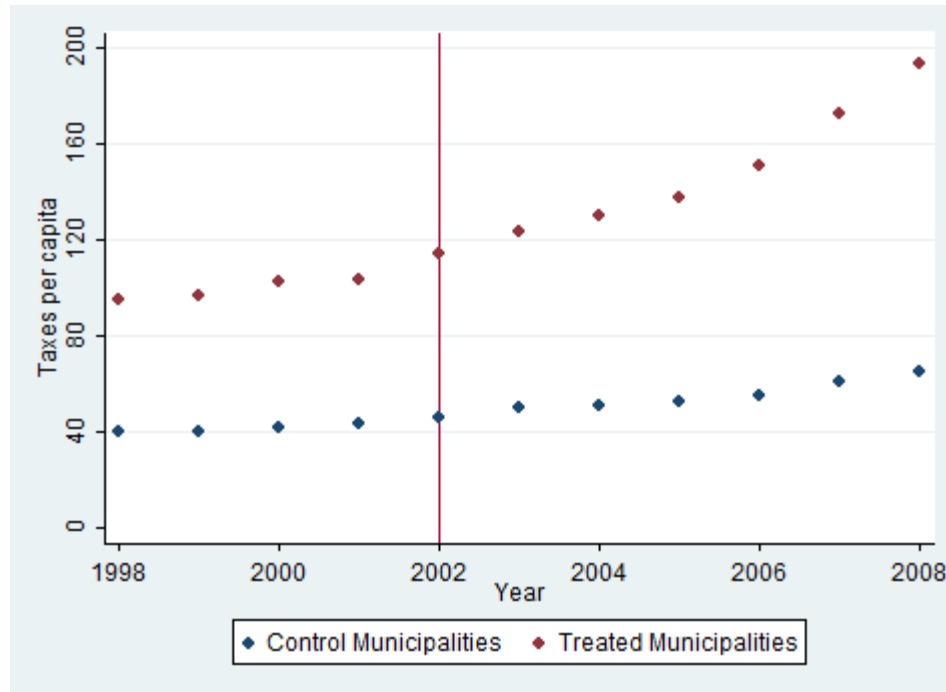
• the PMAT program increased tax collection by nearly 9 BRL per capita on average (a 9% increase), and IPTU and ISS tax collection by more than 4 BRL per capita each

• the program's impact was dynamic: after 6 years, there is a 15% increase in total tax collection.

Table 2: Impact of the PMAT program on tax collection

	(1) ISS	(2) ISS	(3) IPTU	(4) IPTU	(5) Total taxes	(6) Total taxes
Is in a PMAT program	4.639*** (1.079)		4.125*** (0.907)		8.651*** (2.258)	
Year 0		2.067* (1.060)		2.577* (1.259)		3.832** (1.846)
Year 2		4.508*** (1.228)		3.854*** (0.955)		9.301*** (2.266)
Year 4		6.196*** (1.708)		5.800*** (1.194)		11.032*** (3.285)
Year 6		8.819*** (2.631)		7.416*** (1.779)		15.857*** (5.322)
Observations	52630	52630	52630	52630	52630	52630
Municipalities	5030	5030	5030	5030	5030	5030

Cluster robust standard errors in parentheses

* p¡0.10, ** p¡0.05, *** p¡0.01

Current Research

- Qualitative research
  - Choose municipalities in RJ, SP, MG
    - 3 Metropolitan areas: São Paulo, Rio de Janeiro, Belo Horizonte
      - Interview phase

QUESTIONS,

CRITIQUES...

THANK YOU!!!