



# Intellectual Capital for Communities in the Knowledge Economy Nations, Regions, Cities and Emerging Communities



WORLD BANK INSTITUTE  
*Promoting knowledge and learning for a better world*

World Conference on Intellectual Capital for Communities  
- Fourth Edition -

**The Brazilian Development Bank**



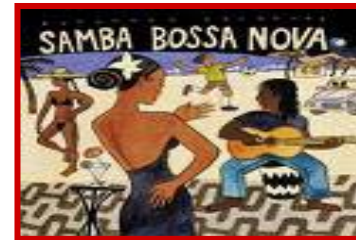
**Eduardo Rath Fingerl**  
*Executive Vice President*  
*Capital Markets*

*May, 2008*

# Innovation and Creativity

## ➤ Brazilian Cultural Heritage Values

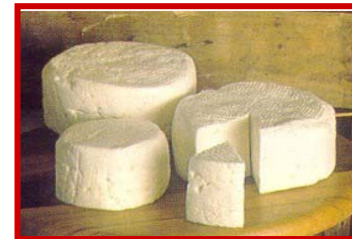
- Bossa Nova



- Flamengo supporters



- Minas Cheese



# Macroeconomic targets

## Science, Technology and Innovation (“PACTI”)

**US\$ 23,1 billion**

### INVESTMENT/GDP

**2010 target: 21% (US\$ 350 billion)**

2007: 17,6% or US\$ 254 billion  
**CAGR 11,3% between 2008-2010**

### PRIVATE R&D/GDP

**2010 target: 0,65% (US\$ 10 billion)**

2005: 0,51% or US\$ 6,7 billion  
**CAGR 9,8% between 2007-2010**

### BRAZILIAN EXPORTS (% WORLD)

**2010 target: 1,25% (US\$ 208,8 billion)**

2007: 1,18% or US\$ 160,6 billion  
**CAGR 9,1% between 2008-2010**

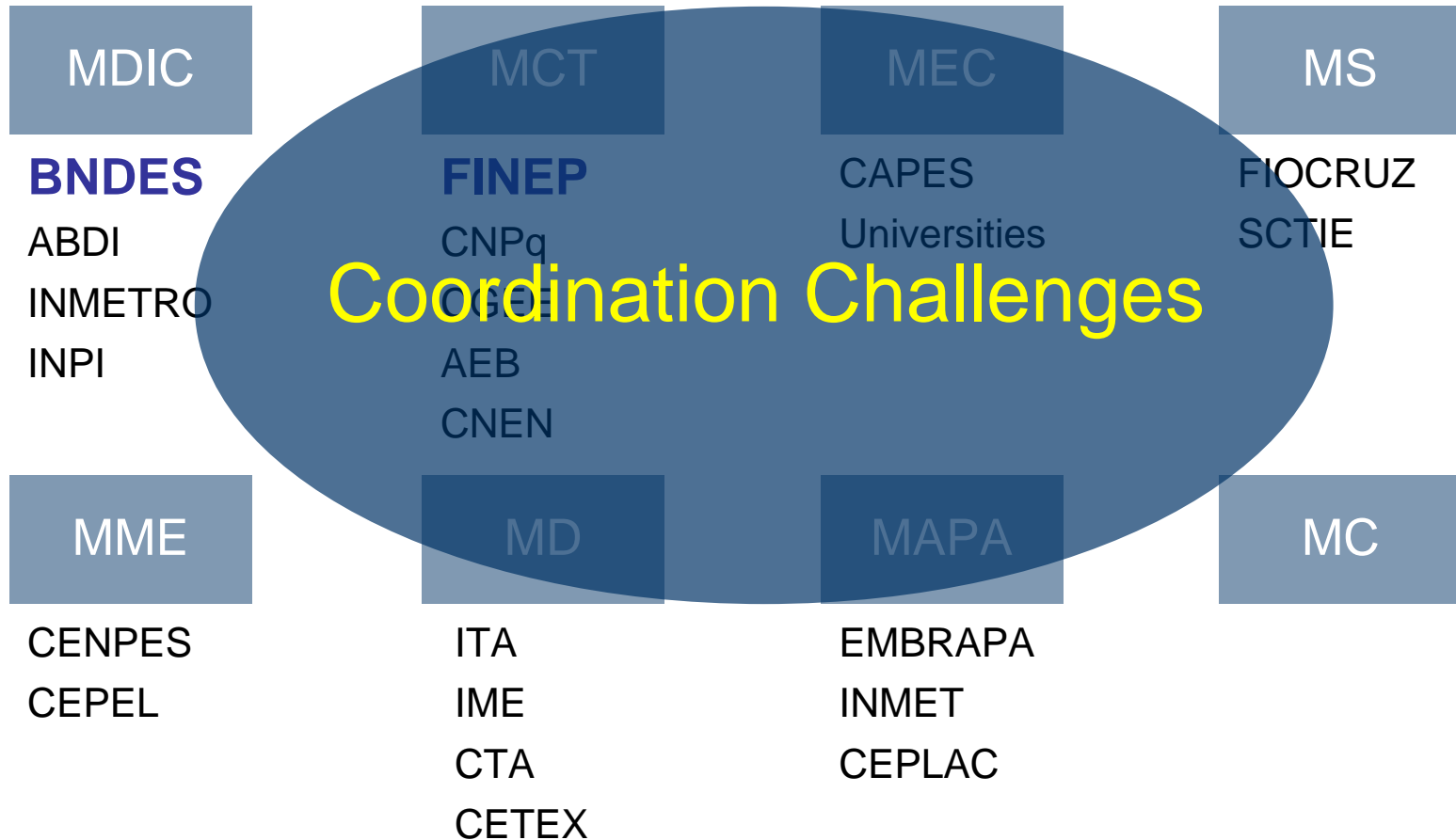
### NUMBER OF SME´s EXPORTERS

**2010 target: increase by 10% the  
number of SME´s exporters**

2006: 11.792 companies

# Federal Government actions in innovation

## MINISTRIES



# Federal Government actions in innovation

## **BNDES** and **FINEP** play a major role...

**-Technologic Innovation**  
**-Innovative Capital**  
**-Sectorial Programs**



Innovation  
support

| <b>BNDES (2008/2010)</b>    | <b>US\$ MM</b> |
|-----------------------------|----------------|
| Fixed Income Programs       | 3.400          |
| VC/PE Funds                 | 450            |
| Direct Equity Participation | <u>800</u>     |
|                             | 4.650          |

| <b>FINEP (2008)</b>                   | <b>US\$ MM</b> |
|---------------------------------------|----------------|
| Loans                                 | 420            |
| Grants to non-profitable institutions | 260            |
| Science and Technology Funds          | <u>735</u>     |
|                                       | 1.415          |

### **MINISTRY OF TREASURY**

Immediate depreciation of new machines used in R,D&I.

# Brazil: Highlights

## INVESTMENTS IN R&D (%GDP)

|                |      |               |             |
|----------------|------|---------------|-------------|
| ISRAEL         | 4,70 | SPAIN         | 1,12        |
| SWEDEN         | 3,89 | ITALY         | 1,10        |
| FINLAND        | 3,48 | RUSSIAN       | 1,07        |
| JAPAN          | 3,33 | <b>BRAZIL</b> | <b>1,02</b> |
| SOUTH KOREA    | 2,99 | HUNGARY       | 0,94        |
| USA            | 2,62 | SOUTH AFRICA  | 0,86        |
| TAIWAN         | 2,52 | INDIA         | 0,85        |
| GERMANY        | 2,46 | PORTUGAL      | 0,80        |
| SINGAPORE      | 2,36 | MALAYSIA      | 0,69        |
| FRANCE         | 2,13 | CHILE         | 0,68        |
| CANADA         | 1,98 | TURKEY        | 0,67        |
| NETHERLANDS    | 1,78 | POLAND        | 0,57        |
| UNITED KINGDOM | 1,78 | MEXICO        | 0,50        |
| CHINA          | 1,34 | ARGENTINA     | 0,46        |

Source: OCDE (2007), Ministry of Science and Technology (MCT,2007), World Bank (2006) and RICYT (2006).

# Brazil: Highlights

## MASTER AND Ph.D. DEGREES

|                              | 1990  | 1995  | 2000   | 2006   |
|------------------------------|-------|-------|--------|--------|
| <i>STUDENTS GRADUATED</i>    |       |       |        |        |
| <i>MASTER</i>                | 5.579 | 8.982 | 18.140 | 29.761 |
| <i>Ph.D.</i>                 | 1.410 | 2.497 | 5.344  | 9.366  |
| <br><i>NUMBER OF COURSES</i> |       |       |        |        |
| <i>MASTER</i>                | 942   | 1.202 | 1.490  | 1.912  |
| <i>Ph.D.</i>                 | 445   | 635   | 821    | 988    |

Source: MCT (2008)

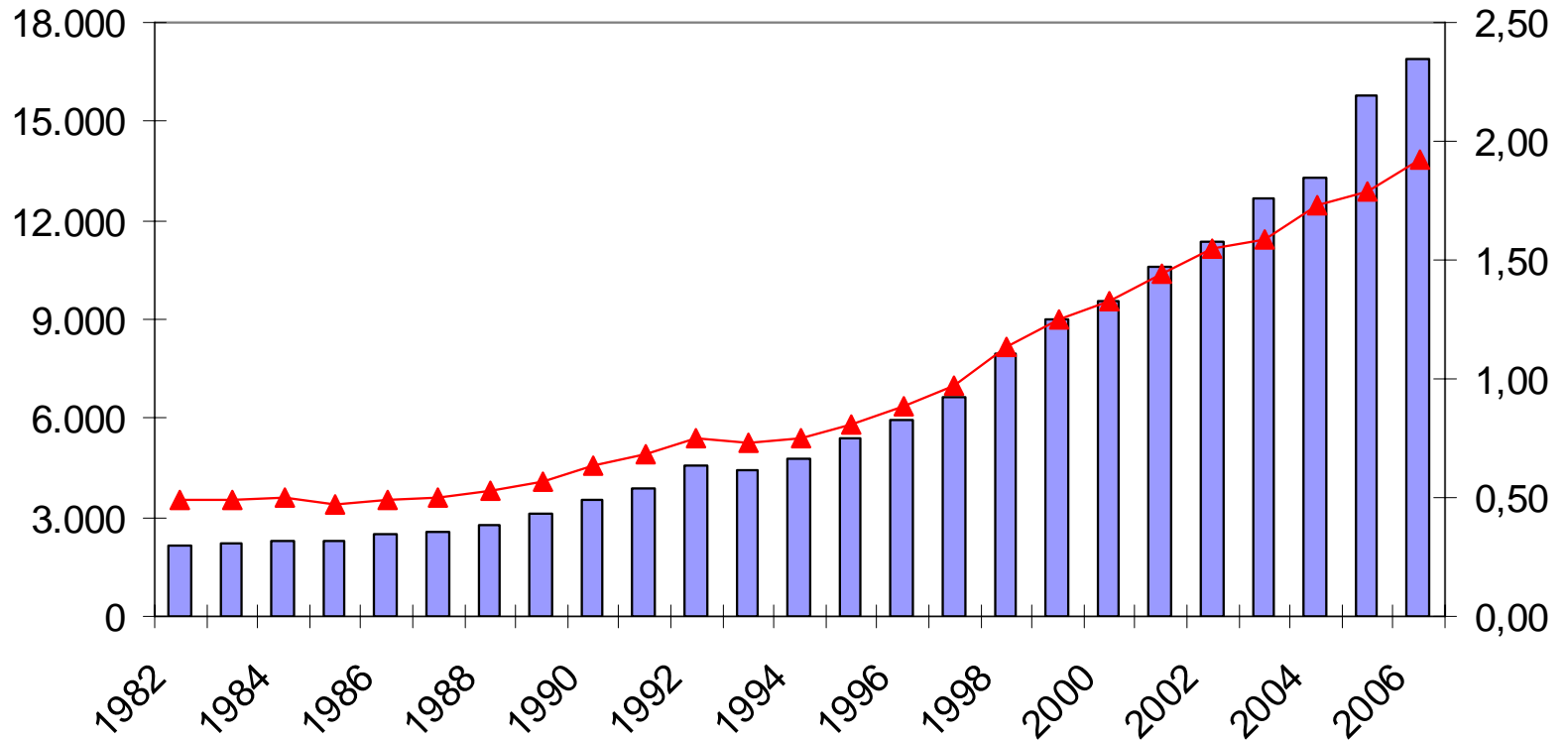


# Brazil: Highlights

## BRAZILIAN SCIENTIFIC PRODUCTION

NUMBER OF  
ARTICLES

% WORLD



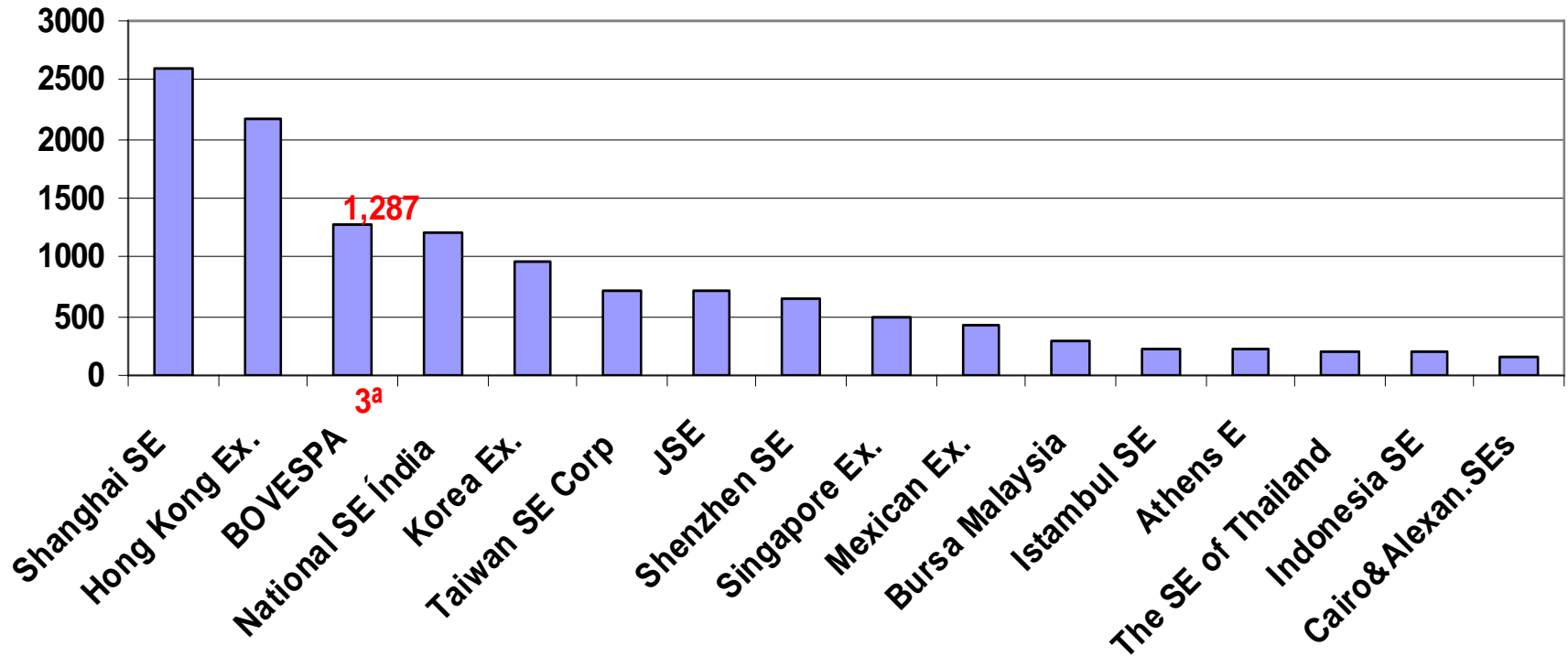
Source: Institute for Scientific Information

# Brazil: Highlights in innovation

- **Incubators in Brazil (2008)**
  - ***383 incubators: 339 active, 32 being implemented and 12 projects***
  - ***85% attached to universities (64% are public)***
  - ***17 research support foundations***
  - ***5,620 enterprises connected to incubators and responsible for generating 30,000 direct jobs***
  - ***Start-ups are usually highly innovative enterprises and foster a new breed of entrepreneurs already adapted to the new competitive environment***
    - ***Support with Credit, Management and Sales tools are essential for competitiveness and growth***

## Emerging Stock Exchanges Capitalization (mar/08)

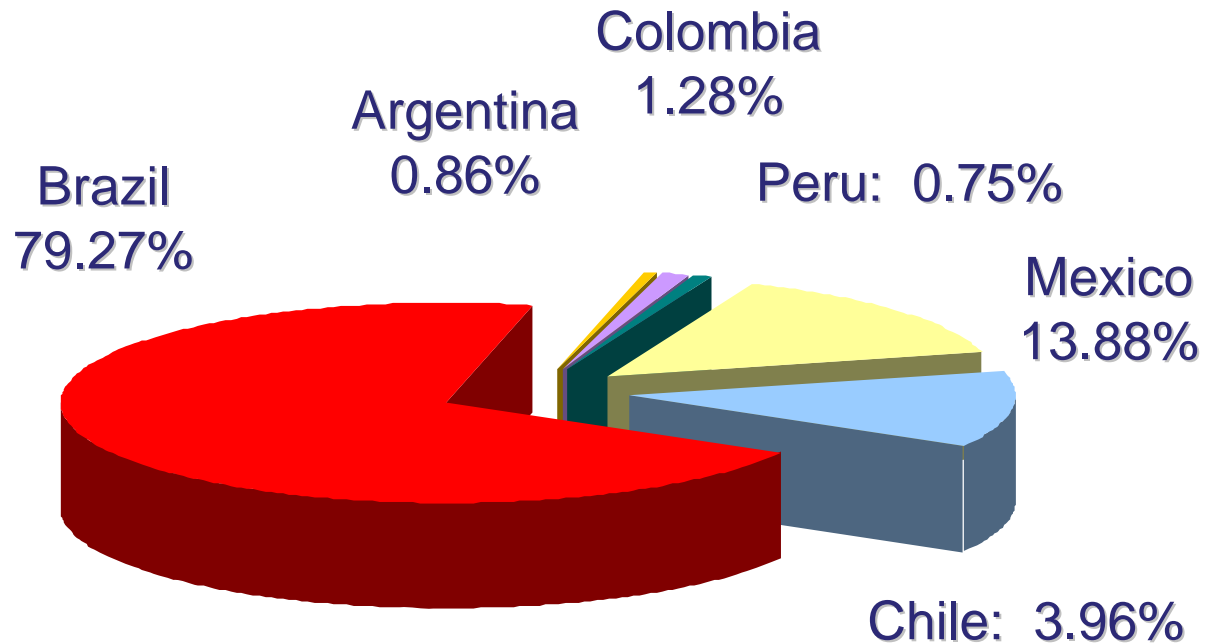
US\$ billion



Source: WFE – World Federation of Exchanges.

# Capital Markets

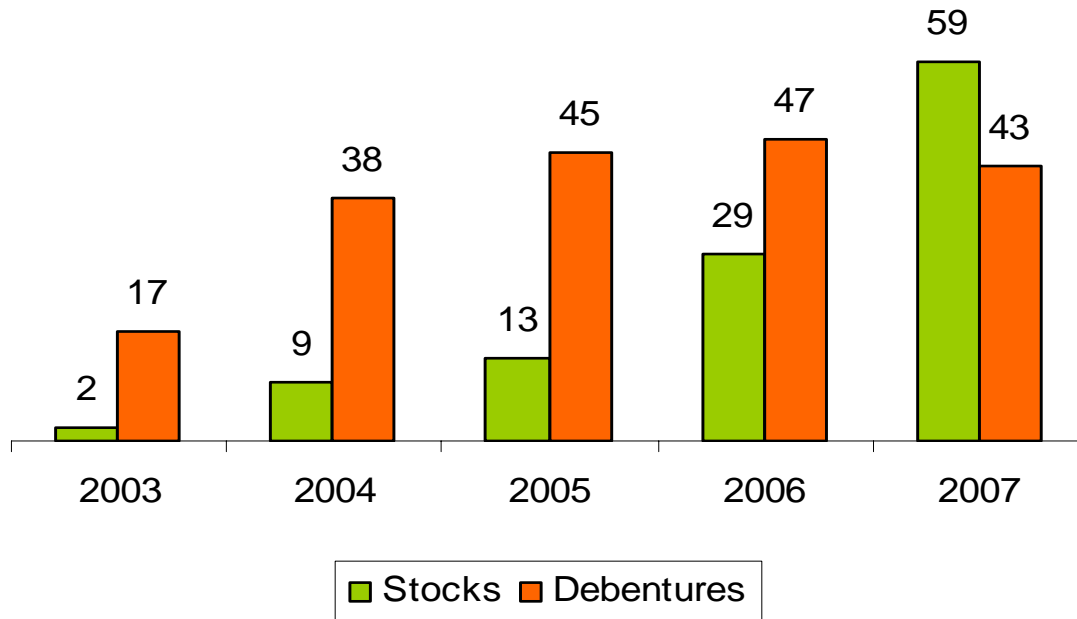
## BOVESPA in Latin America *Trading Volume in 2007*



Source: WFE – World Federation of Exchanges.

# Capital Markets

## BOVESPA Initial Public Offers *Registrations*



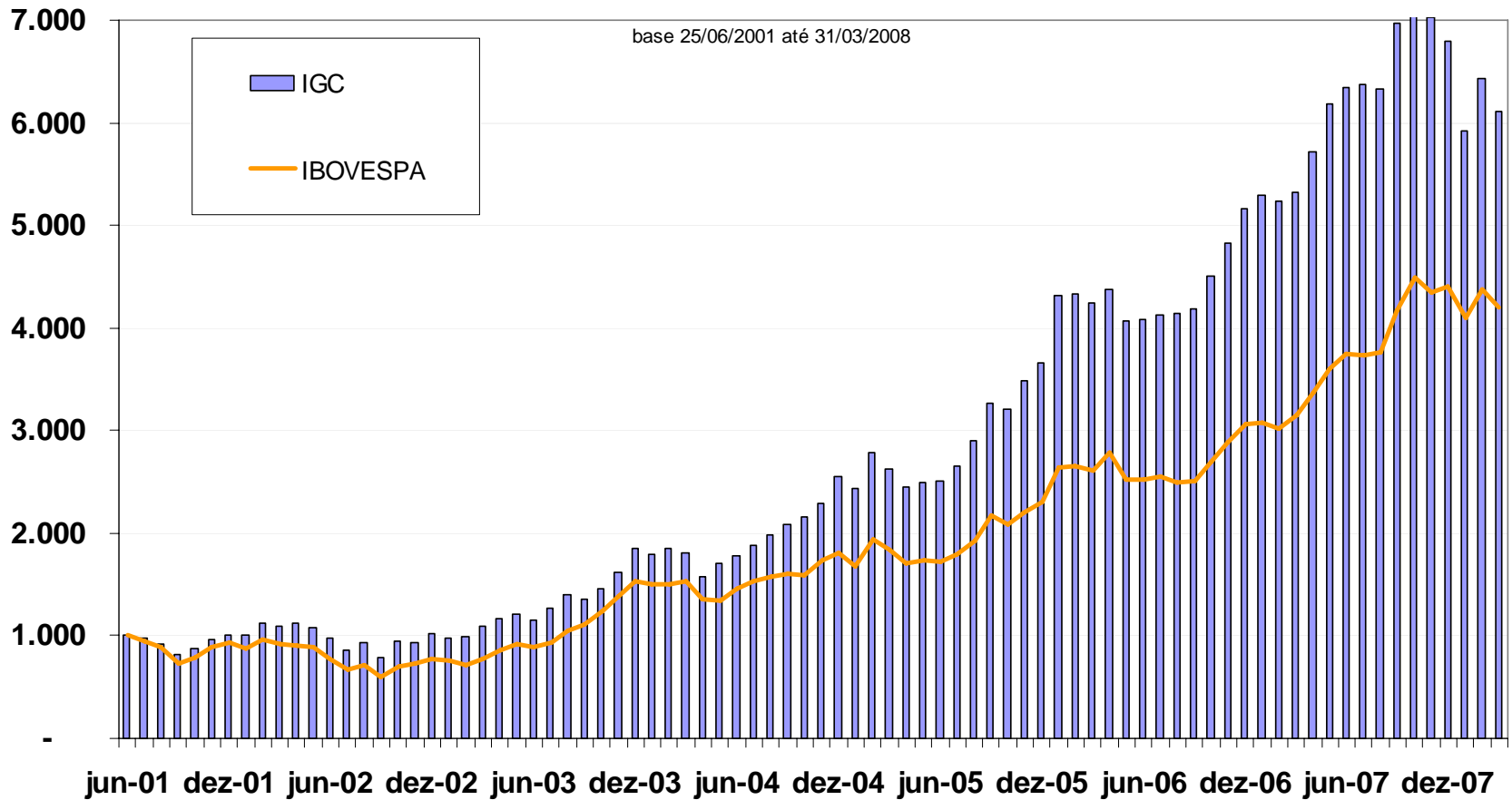
About 400 listed companies with market cap of US\$ 1,3 trillion (*Mar, 2008*).

Listing segments: Novo Mercado, Nível 1, Nível 2 and BOVESPA Mais.

Source: CVM

# Capital Markets

## BOVESPA Index (IBOVESPA) vs. Corporate Governance Index (IGC)



Source: BOVESPA

# Capital Markets

- **S&P rated Brazil as investment grade in apr/08**
  - **A rating upgrade in a moment of international volatility confirms that Brazilian fundamentals are sound.**
  - **A wider universe of international investors, including massive U.S. pension funds, will be able to plunge into the Brazilian stock market.**
  - **Local companies will benefit from the lower cost of capital and more sources to finance their growth.**

Source: ABVCAP

# Capital Markets: VC/PE in Brazil

- **About 90 venture capital / private equity firms managing 153 investment funds**
  - **More than 400 companies invested**
  - **Main sectors: IT, Infrastructure, Biotechnology, Agribusiness and Real State**
  - **Committed capital: from US\$ 5,6 billion (2004) to US\$ 16,7 billion (2007)**
  - **VC/PE firms encourage implementation of corporate governance in non-listed companies**

Source: ABVCAP



## BNDES vs Multilateral Banks *(US\$ billion)*

|                      | BNDES<br>Dec 31, 2007 | IDB<br>Dec 31, 2006 | IBRD<br>Dec 31, 2006 | CAF<br>Dec 31, 2006 |
|----------------------|-----------------------|---------------------|----------------------|---------------------|
| Total Assets         | 144,409               | 66,475              | 212,326              | 10,439              |
| Shareholders' Equity | 14,071                | 19,808              | 36,474               | 3,693               |
| Net Income           | 4,130                 | 243                 | (2,389)              | 321                 |
| Loan Disbursements   | 35,200                | 6,088               | 11,836               | 3,006               |
| Total Loans          | 92,886                | 45,932              | 100,221              | 8,097               |
| Capitalization       | 12.3%                 | 29.8%               | 17.2%                | 35.4%               |
| ROA                  | 3.75%                 | 0.4%                | N.A.                 | 3.3%                |
| ROE                  | 33.23%                | 1.2%                | N.A.                 | 9.4%                |

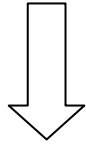
*IDB: Inter-American Development Bank.*

*IBRD: The International Bank for Reconstruction and Development (World Bank).*

*CAF: Corporación Andina de Fomento.*

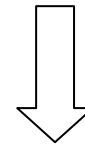
# Organizational Structure

**BNDES**



**Long-term loans**

**BNDESPAR**



**Equity participation**

# Disbursements to innovation (2007)

*US\$ MM*

|                       | <i>Value</i> | <i>Nº Operations</i> |
|-----------------------|--------------|----------------------|
| <b>BNDES</b>          |              |                      |
| Fixed Income Programs | 335          | 53                   |
| <b>BNDESPAR</b>       |              |                      |
| Investment Funds      | 85           | 13                   |
| Equity participation  | 150          | 12                   |
| <b>TOTAL</b>          | <b>570</b>   | <b>78</b>            |

# BNDESPAR's Portfolio

Dec/2006

Dec/2007

| <b>Qty</b>                                 |      |      |
|--|------|------|
| Funds                                      | 20   | 26   |
| Companies (equity participation)           | 182  | 181  |
| <b>Market Value (US\$ billion)</b>         |      |      |
| Stocks/ Funds / Bonds                      | 25,7 | 48,1 |
| Debentures                                 | 2,3  | 1,4  |
| <b>Portfolio Management (US\$ billion)</b> |      |      |
| Investments                                | 0,9  | 3,8  |
| Disinvestments                             | 3,6  | 4,0  |

# Current Funds Program

| QUANTITY | FOCUS                                | TARGET COMPANIES                                 |
|----------|--------------------------------------|--|
| 13       | Emerging Companies / Venture Capital | Innovative technology based companies            |
| 4        | Private Equity                       | Large companies / Infrastructure / low liquidity |
| 1        | Liquidity                            | Listed Companies (Level 2 and 3)                 |
| 3        | Infrastructure Funds                 | Oil and Gas sector companies (the whole chain)   |
| 2        | FDIC (receivables)                   | Capital Goods and Transportation                 |
| 1        | Seed Money Fund (CRIATEC)            | Innovative Seed companies                        |
| 2        | Clean Development Mechanism          | Carbon Credits Generation                        |

# Seed Money Fund (CRIATEC)

- **Committed capital: US\$ 55 million**
- **More than 60 enterprises will be invested**
- **3.000 new jobs are expected to be created**
- **The fund will be valid for 10 years, and the first four years are related to the Investment Term**
- **Creation of a national fund with dedicated staff that will hire managers to operate in 8 innovation clusters around the country**
- **4 companies invested in 2008 (Biotechnology, Agribusiness, IT and Medical equipment)**

# Funds Program

- **BNDES has structured 38 funds up to 2008**  
*(private equity, venture capital, etc.)*
- **Total Committed Capital: US\$ 3.5 billion**
- **BNDES's Committed Capital: US\$ 0.8 billion**
- **More than 220 companies invested**

# Direct Equity Participation Innovative SME's

*US\$ MM*

|                            | <i>2005</i> | <i>2006</i> | <i>2007</i> | <i>2008*</i> |
|----------------------------|-------------|-------------|-------------|--------------|
| Investments approved (qty) | 5           | 9           | 12          | 7            |
| Value                      | 31          | 81          | 150         | 37           |
| Average value              | 6,2         | 9           | 12,5        | 5,2          |

*(\*) Up to march*



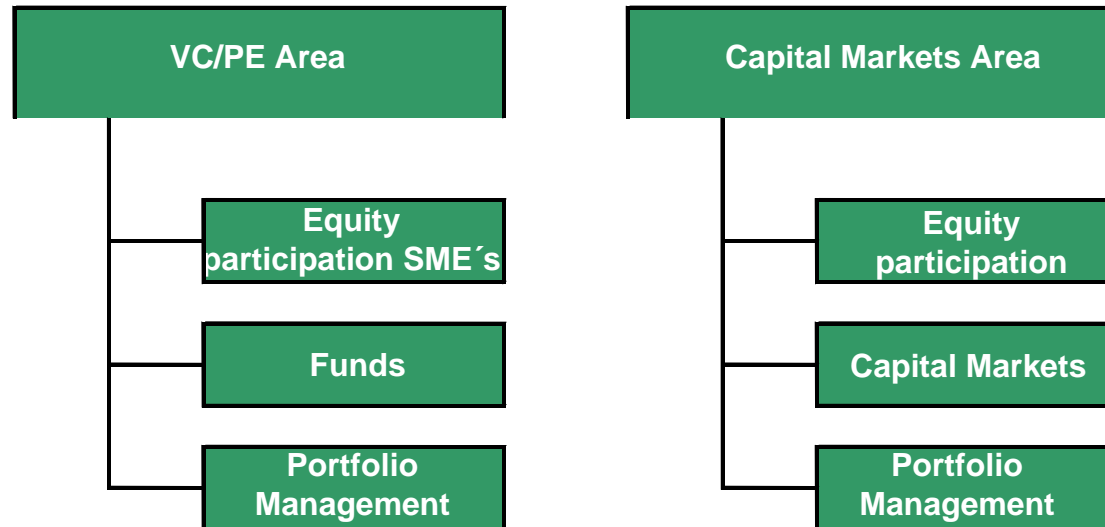
# Direct Equity Participation

**By taking direct participation in small and medium innovative companies, BNDES helps in the diffusion of corporative governance practices, providing greater transparency and respect to minority shareholders, together with the Securities Commission (CVM) and BOVESPA.**

**BNDES has invested US\$ 550 million in 91 SME's since 1988.**

# Capital Markets and Innovation

- **BNDES span-off venture capital/private equity segments into a new Area**
  - **Increasing importance of capital markets for the Brazilian economy**
  - **Emphasized role of innovation**





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