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## The Brazilian Industrial Policy

*Fabrio S. Erber*

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# THE BRAZILIAN INDUSTRIAL POLICY

FABIO S. ERBER

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# INDUSTRIAL POLICY AS A CONVENTION

- CONVENTIONS: TACIT AGREEMENTS BETWEEN DECISION-MAKERS TO ESTABLISH PRIORITIES AMONG PROBLEMS AND SOLUTIONS
- CONVENTIONS: AXIOMATIC CORE AND PROTECTIVE BELT
- COMPETITION BETWEEN CONVENTIONS
- HISTORY MATTERS
- INDUSTRIAL DEVELOPMENT AS PART OF A BROADER DEVELOPMENT CONVENTION
- INDUSTRIAL POLICY AS PART OF A DEVELOPMENT POLICY CONVENTION

# A SHORT HISTORY OF THE BRAZILIAN IP: THE DEVELOPMENTAL PERIOD: 1950-1980

- OBJECTIVES: TO ESTABLISH AN INDUSTRIAL STRUCTURE SIMILAR TO THE STRUCTURE OF THE DEVELOPED COUNTRIES
- ACTORS: FEDERAL GOVERNMENT; STATE ENTERPRISES, FOREIGN INVESTMENT AND LOCAL PRIVATE CAPITAL
- INSTRUMENTS:
  - RISK REDUCTION: PROTECTION IN THE INTERNAL MARKET, EXPORT INCENTIVES, LABOR CONTROL
  - COST REDUCTION: FISCAL AND CREDIT INCENTIVES TO INVESTMENT, WAGE POLICY
- RESULTS:
  - YEARLY GROWTH RATES: 1950-60 – 9.1%; 1960-70: 6.9%; 1970-80: 9.0%
  - MANUFACTURES AS % OF TOTAL EXPORTS: 1960: 2%; 1980: 52%

## A SORTH HISTORY OF THE BRAZILIAN IP: THE DEVELOPMENTAL PERIOD – 1950-1980

- RESULTS – INDUSTRIAL STRUCTURE %

	1950	1980
NON-DURABLE CONSUMER GOODS:	73	34
DURABLE CONSUMER GOODS	3	14
INTERMEDIARY	20	37
CAPITAL GOODS	4	15
- RESULTS – INCREASED TECHNOLOGICAL CAPABILITIES BUT FAILURE OF INFORMATICS POLICY

# A SHORT HISTORY OF BRAZILIAN IP: THE WANING OF IP

- THE CRISIS OF THE EIGHTIES AND EARLY NINETIES: THE DEMISE OF THE DEVELOPMENTAL CONVENTION
  - EXTERNAL DEBT
  - HYPERINFLATION
  - DECLINE OF STATE LEGITIMACY
  - FAILURE OF THE INFORMATICS POLICY

BUT STILL:

- THE 1988 “BOX OF TOOLS” INDUSTRIAL POLICY:
  - MECHANISMS OF SECTOR AND GOVERNMENT COORDINATION
  - FISCAL INCENTIVES FOR INNOVATION
  - IMPORT TARIFF RATIONALIZATION
- THE 1992 “TWEezer POLICY”:
  - COMPETITION PRESSURES: TRADE LIBERALIZATION
  - COMPETITIVE COMPENSATION: CREDIT AND FISCAL INCENTIVES

# A SHORT HISTORY OF THE BRAZILIAN IP – THE DECADE OF LIBERAL DOMINANCE – 1992-2002

- THE NEW DEVELOPMENT CONVENTION: PRICE STABILITY AND “RIGHT INSTITUTIONS” – THE WASHINGTON CONSENSUS:
  - INERTIAL INFLATION AND MONETARY REFORM; 1991-94
  - FOREIGN EXCHANGE RATE PRICE ANCHOR: 1995-98
  - INFLATION TARGETS AND INTEREST RATE ANCHOR – 1998-2002
- LIBERAL REFORMS
- RESULTS:
  - MACROECONOMIC INSTABILITY
  - SLOW AND UNSTABLE INDUSTRIAL GROWTH: 1.4% PER YEAR
- THE CONFLICT BETWEEN RADICAL AND REFORMIST LIBERALS AS REGARDS IP – HISTORY MATTERS BUT ONLY AD HOC MEASURES

THE PRESENT INDUSTRY, TECHNOLOGY  
AND FOREIGN TRADE POLICY – THE  
POLITICAL CONTEXT

- NEW GOVERNMENT AND NO  
GROWTH IN 2003 – LEGITIMACY
- TRADITIONAL COMMITMENT OF  
THE MAIN GOVERNMENT PARTY  
TO INDUSTRIAL POLICY

# THE PRESENT IP – STRUCTURAL ISSUES

## BRAZILIAN AND WORLD EXPORTS AND TECHNOLOGY INTENSIVENESS – 2003 - %

<b>PRODUCTS</b>	<b>BRAZIL</b>	<b>WORLD</b>
PRIMARY COMMODITIES	40	11
LABOR AND NAT. RES. INTENSIVE MANUFACTURES	13	13
LOW TECH MANUFACTURES		
MEDIUM TECH MANUFACTURES	19	30
HIGH TECH MANUFACTURES	12	30

SOURCE: IPEA

# THE PRESENT INDUSTRIAL POLICY – STRUCTURAL ISSUES

## INNOVATION AND MANUFACTURES FOREIGN TRADE – 2003

MANUFACTURES: 53.5% OF EXPORTS AND 74.6% OF IMPORTS

• SECTOR	EXPORTS	IMPORTS	BALANCE
	(%)	(%)	(US\$ B.)
• HIGH TECH	6.1	13.3	- 8.0
• MEDIUM-HIGH TECH	15.9	32.6	-16.5
• LOW AND MEDIUM-LOW TECH	78.0	54.2	124.6
• WORLD HIGH GROWTH 1996/01	12.3	29.9	-21.8
• WORLD NEGATIVE GROWTH	46.0	23.5	87.6

SOURCE: IEDI

# THE PRESENT IP – STRUCTURAL ISSUES

- LABOR PRODUCTIVITY COMPARED TO USA: 1980: 35%; 2002: 255
- USPO BRAZILIAN PATENTS 1999/2002 YEAR AVERAGE: 99 – 0,06%
- INNOVATION IN THE BRAZILIAN INDUSTRY – 1998-2000
  - 31% OF FIRMS INTRODUCED INNOVATIONS
  - ONLY 1.7% OF FIRMS (1199) INTRODUCED PRODUCT INNOVATION AND PRODUCT DIFFERENTIATION
  - INNOVATION EXPENDITURES IN % (2000):
    - MACHINERY: 52%
    - INTERNAL R&D: 17%
    - R&D CONTRACTED OUT: 3%
    - OTHER KNOWLEDGE: 5%
    - TRAINING: 23%
  - INNOVATION IS RELATED TO SIZE OF FIRM
  - WORLD SHARE OF SCIENTIFIC PAPERS: 1981: 0,44% 2002: 1,55%

# **THE PRESENT IP POLICY CONVENTION**

**THE PRESENT POLICY  
COMBINES INDUSTRIAL,  
INNOVATION AND FOREIGN  
TRADE POLICIES**

# THE AXIS OF THE PRESENT IP POLICY

- HORIZONTAL:
  - STRENGTHENING THE NATIONAL SYSTEM OF INNOVATION
  - REDUCTION OF THE COST OF EXPORT
  - REDUCTION OF THE COST OF INVESTMENT
  - SIZE DIMENSION
- VERTICAL:
  - CAPITAL GOODS
  - SOFTWARE
  - INTEGRATED CIRCUITS
  - PHARMACEUTICAL
- NEW TECHNOLOGIES:
  - BIOTECH
  - NANOTECH

# THE PRESENT IP POLICY: INSTRUMENTS OF THE HORIZONTAL AXIS

- STRENGTHENING THE NATIONAL SYSTEM OF INNOVATION
  - FISCAL AND CREDIT INCENTIVES TO INTRA-MUROS AND CONTRACTED OUT EXPENDITURES
  - JOINT PRIVATE AND STATE BANKS (BNDES AND FINEP) VENTURE CAPITAL FUNDS
  - MODERNIZATION OF INTELLECTUAL PROPERTY AND METROLOGY GOVERNMENT INSTITUTIONS
- REDUCTION OF EXPORT COSTS
  - APEX: BRAZILIAN AGENCY FOR EXPORT PROMOTION
  - BUREUCRATIC DEREGULATION
  - EXPORT CREDIT BY BNDES

# THE PRESENT IP POLICY : HORIZONTAL AXIS INSTRUMENTS

- REDUCING THE COST OF INVESTMENT:
  - REDUCTION OF TAXES ON LOCAL AND IMPORTED CAPITAL GOODS
  - REDUCTION OF JURISDICTIONAL UNCERTAINTY OF CREDIT LENDERS
  - DEREGULATION OF PROCEDURES FOR OPENING AND CLOSING UP FIRMS
  - CAPITAL MARKET REGULATION: PROTECTION OF MINORITY SHAREHOLDERS AND BNDES-BACKED FUNDS
- SIZE DIMENSION:
  - INCREASING ACCESS OF SME TO CREDIT
  - CLUSTER-ORIENTED POLICIES
  - M&A OF LARGE ENTERPRISES

# THE PRESENT IP POLICY : INSTRUMENTS OF THE VERTICAL AND NEW TECHNOLOGIES AXIS

- SPECIFIC LINES OF CREDIT AND RISK-CAPITAL OF BNDES AND FINEP FOR INVESTMENTS ON INNOVATION, PRODUCTION CAPACITY, M&A AND EXPORTS
- NEGOTIATION WITH FOREIGN INVESTORS FOR IC
- PUBLIC LABS FOR PHARMACEUTICALS
- REGULATION OF PHARMACEUTICALS BY ANVISA (THE BRAZILIAN FDA)
- LOCAL PURCHASE OF CAPITAL GOODS AND SHIPS BY PETROBRAS WITH BNDES CREDIT
- INSTITUTIONAL MECHANISMS FOR ELABORATION OF BIOTECH AND NANOTECH POLICIES
- ADDITIONAL GRANTS FOR BIOTECH AND NANOTECH NETWORKING AND RESEARCH

# THE PRESENT IP POLICY: COORDINATION

- GENERAL:
  - NATIONAL COUNCIL FOR INDUSTRIAL DEVELOPMENT: GOVERNMENT, ENTREPRENEURS AND TRADE UNIONS
  - BRAZILIAN AGENCY FOR INDUSTRIAL DEVELOPMENT
- SECTORS AND NEW TECHNOLOGIES:
  - COMPETITIVENESS FORA OF THE MINISTRY OF INDUSTRIAL DEVELOPMENT – GOVERNMENT AND ENTERPRISES

# THE PRESENT IP POLICY: PROBLEMS

- MACROECONOMIC CONVENTION: PRICE STABILITY
  - DEMAND MUST GROW SLOWLY
  - VERY HIGH INTEREST RATES
  - OVERVALUED EXCHANGE RATE
  - FISCAL POLICY ORIENTED TOWARDS PRIMARY SURPLUS
- HUMAN RESOURCES
- LOGISTICS
- INCIPIENT COORDINATION OF IP