

The Politics of Patents and Innovation Policy in Brazil

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Brazil's New Role as an Economic Power: Opportunities & Challenges

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The Politics of Patents and Innovation Policy in Brazil

1. Knowledge Governance and Patent Policies
2. International Context and Cross-National Changes
3. Patents and Innovation Policy in Brazil in Contemporary Brazil
 - Understand Brazil in comparative perspective
 - [book]

Patents

State-granted title of ownership over knowledge

- Patents convert knowledge into private property
- Public good becomes private good
- Owner has rights to exclude and control

Important qualifications and comments

Patents are national: need to apply for and receive patent in every country

Rights of patent-holders are limited: not all types of knowledge can be privately owned; non-owners have rights to use knowledge; patents expire.

Variation in where limitations established allow us to compare patent systems across time and space

- Stronger protection of patents (IPRs) means more knowledge can be privately owned and owners have more extensive rights of exclusion for longer periods of time

Intellectual Property: Owning Knowledge

Type of Knowledge	Type of IP
Inventions	Patents
Forms of Expression	Copyright
Brands and Symbols	Trademarks

Latin America: Intellectual Property = Industrial Property (Patents and Trademarks) + Authors' Rights (Copyrights)

- Brasil: INPI -- patents and trademarks

Governing Knowledge: The Unavoidable Trade-off

Public policy in “knowledge governance” is informed by two goals:

- (1) Generation and commercialization of knowledge (innovation)
- (2) diffusion and use of knowledge

Patents provide incentive to innovate

- Knowledge as public good; risk of undersupply
- Patents create conditions for appropriation

But the way patents achieve (1) can make it difficult to achieve (2)

Patents promote innovation by *restricting* use of knowledge

- The patent converts knowledge into private property
- Owners set conditions for the use of “their” knowledge

➔ *Resolving one problem (undersupply of knowledge and innovation) can deepen other problem (low rate of utilization of knowledge)*

- *Both objectives cannot be maximized simultaneously*
- *Which is the national priority?*

Setting Priorities: Patents, Knowledge, and Public Policy in Historical Perspective

Higher indigenous innovative capacity and more productive R&D

- Encourage creation/commercialization (“stronger” patent systems)
 - Make more types of knowledge patentable
 - Make owners’ rights of exclusion extensive and long
 - US, OECD

Less indigenous innovative capacity; more dependent on foreign-generated knowledge

- Encourage dissemination and use (“weaker” patent systems)
 - Make some types of knowledge unpatentable
 - Make owners’ rights of exclusion less extensive and shorter (increase public’s rights to use knowledge)
 - Developing countries (pre-1990s) -- e.g. no pharmaceutical patents, compulsory license clauses, short patent terms

Lots of cross-national variation

•product of very permissive international environment (Paris Convention)

A New International Environment: From Paris Convention to TRIPS

Uruguay Round

- IP rules integrated into international trade rules -- TRIPS Agreement

What is TRIPS?

- New international rules, setting national standards regarding virtually all aspects of countries' IP policies (patents, copyrights, trademarks, etc.)
- *New* obligations (TRIPS > Paris Convention)
- *Binding* obligations (IP in WTO, linked to Dispute Settlement Mechanism)
- Single Undertaking: Cannot be in WTO without being party to TRIPS
- Room for variation (“flexibilities”)
- Countries need to revise laws and admin procedures to comply (i.e. national implementation of *TRIPS-style* IP systems)

From International to National: Two Periods of TRIPS Implementation

Period One (background)

Early-mid 1990s: Introducing TRIPS-style patent regimes

Developing countries implement TRIPS-style patent systems that are *not* reflective of level of scientific, technological, and innovative infrastructure and capabilities

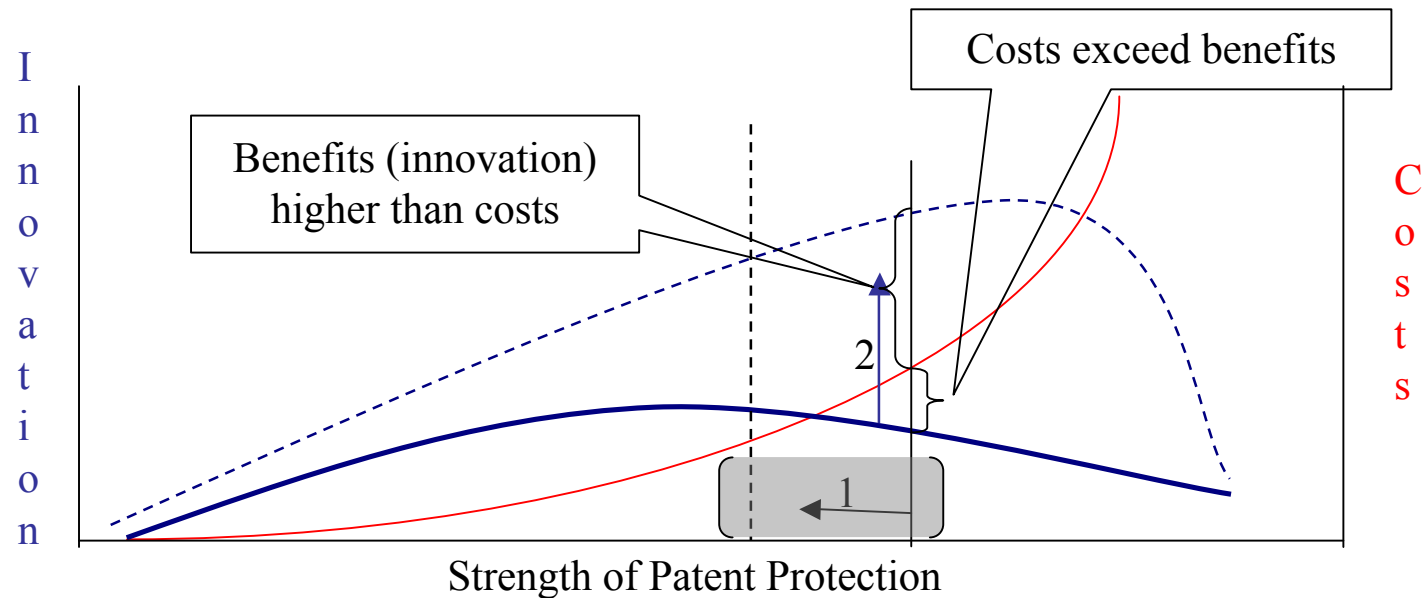
- New patent regimes as if the countries were already more developed
- Cross-national variation on common theme: adoption of “oversized” patent regimes

Period Two (focus)

2000s: Revisiting recently-introduced TRIPS-style patent regimes

- Dealing with the problems of oversized, TRIPS-style patent regimes (high costs of patented technologies, minimal benefits in terms of innovative outputs)
- *How to react to oversized patent regimes?*

The Political Economy of Oversized Patent Regimes



How to respond to the mismatch between patent systems and scientific, technological, and innovative capabilities? Two possibilities (in theory):

1. Alter the patent system -- within TRIPS and bilateral constraints -- to make it more appropriate for the country's scientific and technological capabilities ("tailor" patent system)
2. Alter scientific and technological capabilities to make the country more appropriate for the new patent system ("aspire" to grow into patent system)

• *Not mutually exclusive -- but important political differences*

Addressing Oversized Patent Regimes

1. Tailoring

- Alter the patent system -- within TRIPS and bilateral constraints -- to make it more appropriate for the country's scientific and technological capabilities (Tailor to improve the fit)
 - *Comparative levels of exploitation of TRIPS flexibilities*
 - *Legislative and legal changes*
 - *Immediate effect*

2. Aspiring

- Alter scientific and technological capabilities to make the country more appropriate for the new patent system (Aspire to grow into patent system)
 - *Comparative levels of effort (resources), focus, and coordination in science-technology-innovation (STI) policies*
 - *Expensive, long term, immediate effects and benefits difficult to grasp*

Comparing Responses to Oversized Patent Regimes in Latin America

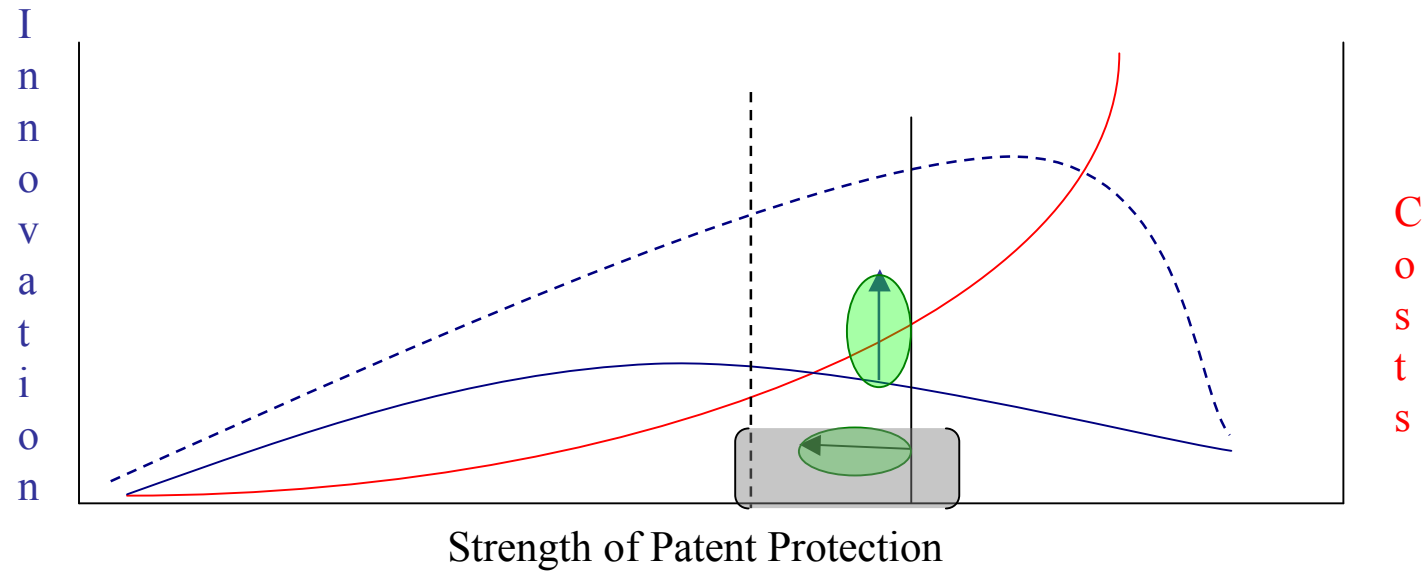
Country <i>(nature of wave 1 TRIPS-style regime)</i>	<i>Tailoring</i>	<i>Aspiring</i>
Argentina <i>(wave 1: minimalist, “TRIPS Just”)</i>	Medium	Medium
Brazil <i>(wave 1: maximalist, “TRIPS Plus”)</i>	High	High
Mexico <i>(wave 1: maximalist, TRIPS Plus”)</i>	Low (negative?)	Low

Neo-developmentalism in Brazil:

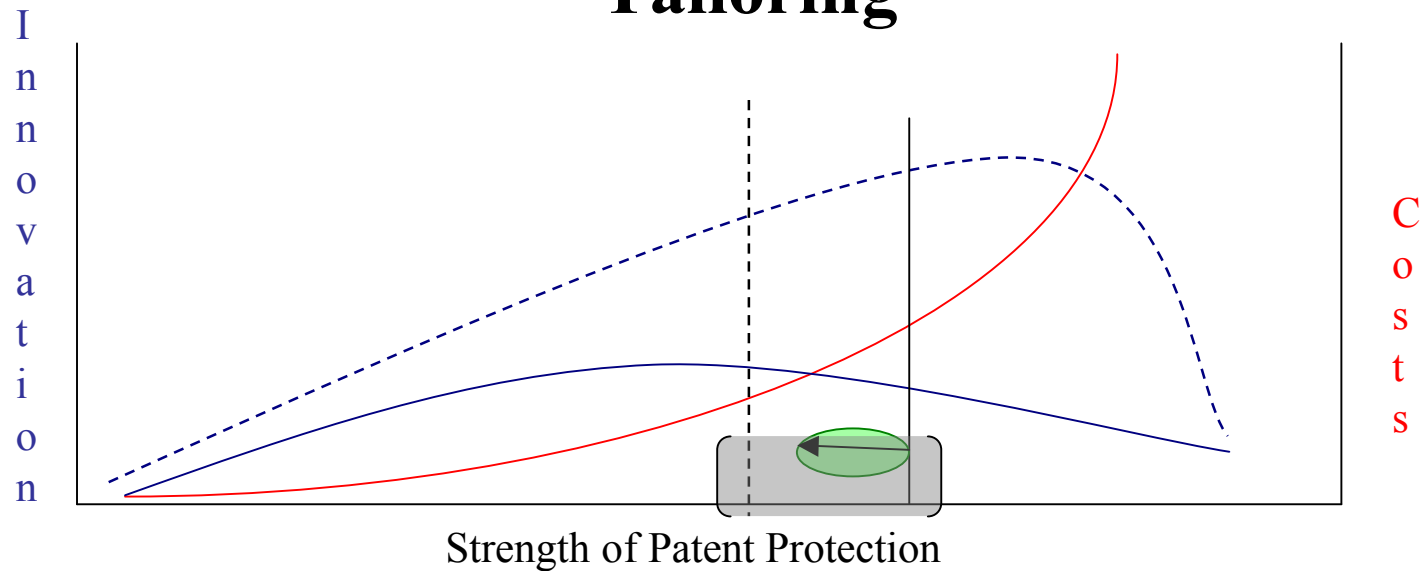
- Patents: most within-case, longitudinal variation
- STI: most extensive efforts

==> *Describe and explain -- and highlight internal tensions*

Neo-Developmentalism in Brazil: Tailoring and Aspiring

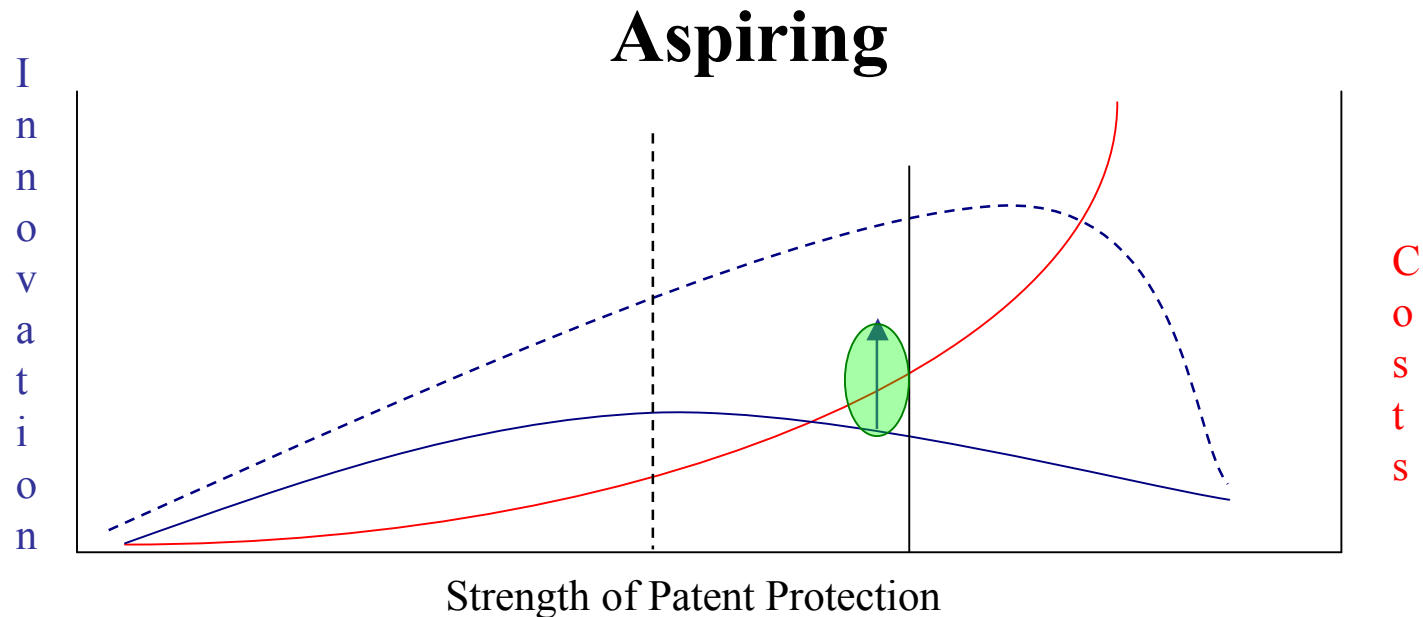


Tailoring



Key elements of tailoring in Brazil

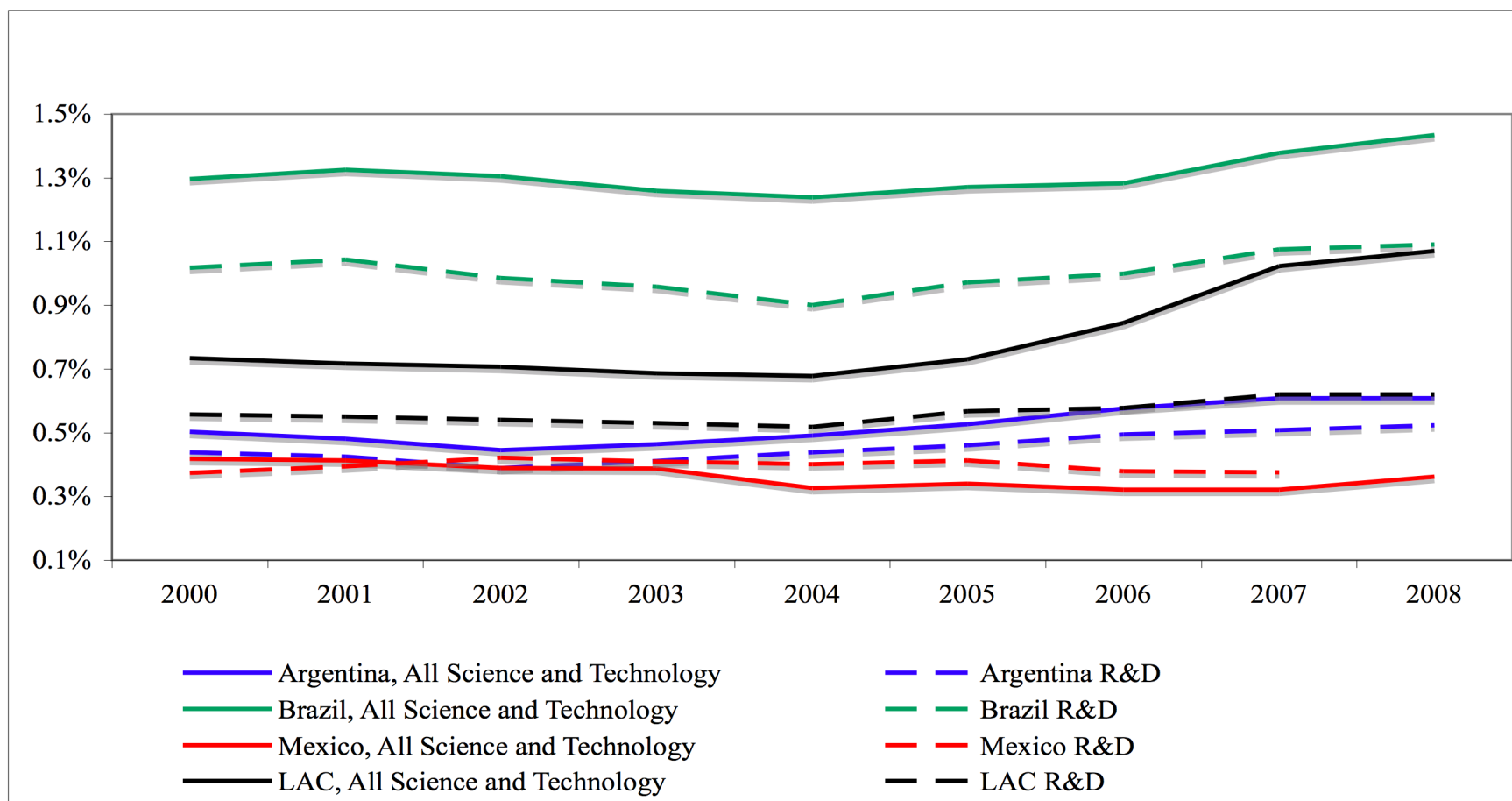
- Prior Consent
 - Compulsory Licensing (reforms to make easier to use; defend at WTO; threaten/issue)
 - Generic competition (expedite entry, addressing pipeline problem)
- ==> Concerted effort to scale back “TRIPS Plus” patent regime (*from “TRIPS Plus” to “TRIPS Just”*)
- [all about pharma]



Strengthen STI Infrastructure

- Resources: “high level” with locked-in funding mechanisms
 - Focus: sectoral, integrated into PITCE/PDP (innovation-based industrial strategy), Coordination: Integration bw MCT/FINEP/BNDES/FAPs
 - Key legislation: LIT (framework to facilitate interaction between pub and private sectors), Lei do Bem (consolidate and extend tax incentives to industry)
- ==> full scale effort to increase links between science and industry and improve international competitiveness based on technological innovation

Spending on Science-Technology and R&D



Notes

- *Brazil: public and private*
- *Comparative reference points*

Explaining Responses: Motives, Obstacles, Means

Motives

Conditions that make policymakers seek policy changes (or not)?

Obstacles

Distinct aspects of “tailoring” and “aspiring” that make them difficult;
challenges that must be overcome

Means

Conditions that make policy changes feasible

Politics of Tailoring in Brazil

Motives

High price of drugs (ARVs; 1st-line vs. 2nd line)

MS into action

Obstacles and Challenges

Strong opposition on the part of principal beneficiaries of new regime
(transnational pharmaceutical firms and lawyers; foreign governments)

Means

Availability of local pharmaceutical sector as alliance partner

Active civil society and NGOs

Outcome

Resistance was strong, but tailoring started early enough (1999) that
government able to build a coalition in support of health-oriented patent
reforms

Politics of Aspiring in Brazil

Motives

Minimal *internal* benefits of new system

(Universal -- everyone in favor of STI policies, in principal)

Obstacles

Expensive (resource allocation always conflictual)

Hard to see the accomplishments of STI policies (long term)

- Need durable coalitions to sustain resources and refine policies

Means

Industrial structure and increased demand for locally supplied knowledge

- structure of industry; levels of Braz and Foreign R&D (only country where private share near 50%)

- Business mobilization for STI policies

Outcome

Government-industry interaction to stabilize and fine-tune STI policies

- ANPEI-CNI and Brazilian STI Politics (illustration from Lei do Bem)

Conclusions: Synthesis and Concerns

Neo-Developmentalism: focus on both use and generation of knowledge

Interaction between tailoring and aspiring: complementary or antagonistic?

- How aspiring might undermine tailoring
- Endogenous process: STI --> constituencies that make tailoring more difficult
- Lessons from Prior Consent

Brazil in comparative perspective: what are the reference points?