

**THE TRIPS AGREEMENT:
A CONTEXT FOR CANADIAN
INTELLECTUAL PROPERTY PROTECTION**

JAMES GAISFORD

**CANADIAN AGRICULTURE INNOVATION RESEARCH NETWORK
Public Institutions and Management of Intellectual Property
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- 1. WHAT IS INTELLECTUAL PROPERTY?
AND WHY DOES IT NEED PROTECTION?**

- 2. WHY IS IP PROTECTION AN INTERNATIONAL ISSUE?
AND WHY IS IT TRADE RELATED?**

- 3. WHAT IS THE TRIPS AGREEMENT?
AND HOW IS IT WORKING?**

1. WHAT IS INTELLECTUAL PROPERTY? AND WHY DOES IT NEED PROTECTION?

Research and Development (R&D) is a *PUBLIC GOOD*

- *NON-RIVALROUS*: All Producers can simultaneously use the new technology and/or produce the new product.
(Use of information by one firm does not preclude use by others as with private goods)
- *NON-EXCLUDABLE*: All producers typically have access to the new technology and/or product at low cost (e.g., via reverse engineering) in the absence of IP protection.

PROBLEM

- Each Producer has an incentive to free-ride on the innovations of its rivals...
- Inefficiency: under-investment in R&D!

SOLUTIONS

- IP Protection: Temporary monopoly provides an incentive for investment in R&D.
- Imperfect Solution: monopoly created to provide the incentive to invest.
- Longer IP protection implies more incentive to invest but ALSO a longer period of monopoly inefficiencies
- Alternative Solutions?

TYPES OF INTELLECTUAL PROPERTY PROTECTION

Permanent Protection:

- Trademarks
- Geographic Indicators

Temporary Protection:

- Patents (Products, Processes)
- Copyrights (Writing, Music, Art, Software)

Other forms of IP Protection: Industrial Designs, Trade Secrets, etc.

IMPORTANCE OF IP PROTECTION IN THE AGRIFOOD SECTOR

- Changing Nature of Agricultural Research
 - Trend toward greater private versus public research
 - Biotechnology
- Agriculture-Related Controversies: Patenting Life Forms

2. WHY IS IP PROTECTION AN INTERNATIONAL ISSUE? AND WHY IS IT TRADE RELATED?

- Each Country has an incentive to free-ride on the IP Protection of other Countries...
- Each Country has an incentive to provide lax IP Protection/Enforcement to Foreign Innovators...

Results:

- Inefficiency: **Under-Protection of R&D**
- Discrimination

SOLUTIONS?

International Agreements on IP Protection...

HISTORY OF INTERNATIONAL IP PROTECTION

- Paris Convention, 1883: Patents
- Berne Convention, 1886: Copyrights
- World Intellectual Property Organisation (WIPO), 1967

PRE-TRIPS PROBLEMS

- Minimum Standards
- Enforcement
- Dispute Settlement

WTO SOLUTION?

- Uruguay Round:
- Trade-Related Intellectual Property Rights (TRIPS) Agreement

IP PROTECTION AND TRADE

What happens to imports when a country increases IP Protection?

Market Power Effect

- Reduced piracy leads to higher prices and reduced imports

Market Expansion Effect

- Reduced piracy leads to higher demand and greater imports

The threat of imitation and market power and expansion effects.

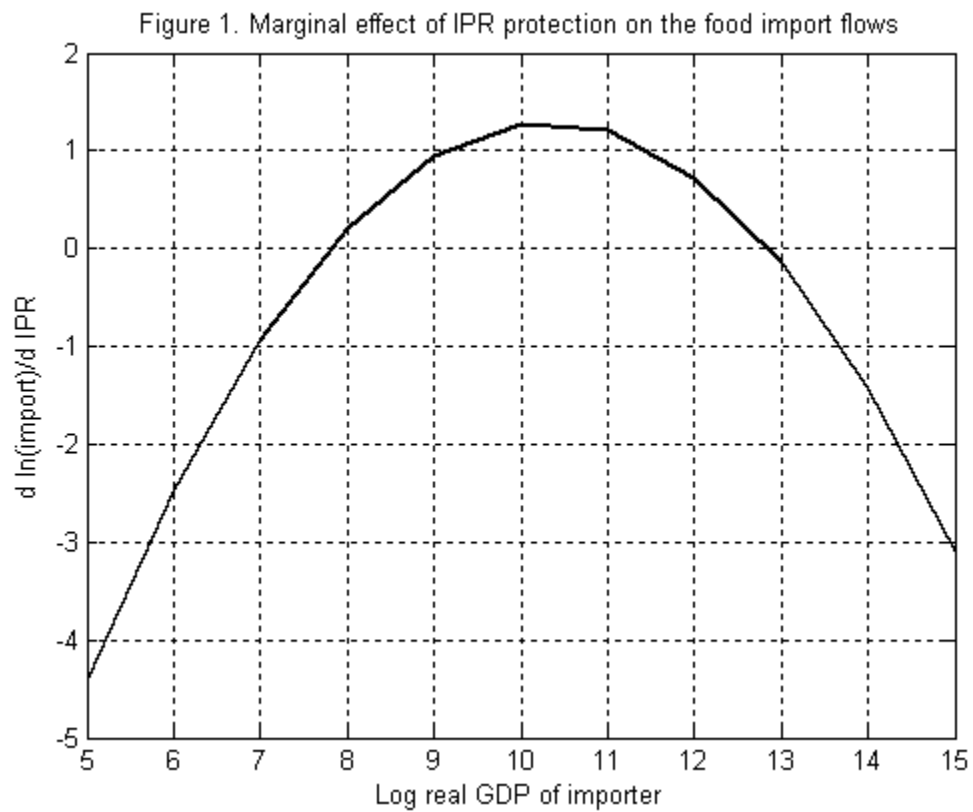
	Weak IPR Protection	Strong IPR Protection
Weak Imitative Abilities	2. Moderate Threat of Imitation; Ambiguous Effect (+/-)	1. Weak threat of Imitation; Market Power Effect (-)
Strong Imitative Abilities	4. Strong Threat of Imitation; Market Expansion Effect (+)	3. Moderate threat of Imitation; Ambiguous Effect (+/-)

Source: Smith (1999)

AGRICULTURAL TRADE

(Ivus, Loppoacher & Shevtsova)

- IP Protection Does Appear to Matter
- The Market Expansion Effect Appears Dominant
- The Marginal Effect of IP Protection on Imports Rises with the Log of GDP



3. WHAT IS THE TRIPS AGREEMENT? AND HOW IS IT WORKING?

TRIPS HIGHLIGHTS

1. WTO Members must participate in TRIPS
2. Minimum World Standards:
 - 20 Years on Patents
 - 50 years+ on Copyrights
3. Permissible Patent Exclusions: Life Forms
 - Alternative protection must be provided for plant varieties
4. Enforcement Requirements;
Dispute Settlement Provisions
5. Allowable Retaliation (per WTO)
 - Within Agreement Retaliation
 - Cross Agreement Retaliation
 - Equal Value (to the lost benefit)

TRIPS HIGHLIGHTS (continued)

6. Compulsory Licensing on Patents Permitted, but Subject to Conditions
 - Attempt at Voluntary Agreement (Except in Emergencies)
 - Reasonable Compensation
 - Essentially Domestic Use

7. Implementation
 - Developed Countries: One Year (1996)
 - Developing and Transition Countries: Five Years (2000)
 - Least Developed Countries: 11 Years (2006);
 - “Mailbox” Provision for Pharmaceutical and Agricultural Chemicals
 - Longer adjustments allowed for IP extensions into new areas

TRIPS REVIEW

Review by TRIPS Council after five years specified in Uruguay Round

Controversies

1. Pharmaceuticals (HIV/AIDS Imperatives)
 - 2003 waiver for imports of pharmaceuticals produced under compulsory licensing to countries with no domestic capacity.
 - Least Developed Countries now have until 2016 for Pharmaceuticals
2. Geographic Indicators (General Rules and Wines and Spirits)
3. Plants and Animals
 - (a) Patenting Issue
 - (b) TRIPS versus the UN Convention on Biological Diversity
 - “Disclosure” of source country for genetic resources, “prior informed consent” and “fair and equitable benefit sharing”

A TALE OF TWO AGREEMENTS: TRIPS VERSUS THE GATT

GATT Tradition

- Asymmetric Initial Policy Equilibrium — Countries are Different
- Gains from Cooperation: Beggar-Thy Neighbour Aspect of Tariffs
- **Symmetric Concessions**
- **Asymmetric Outcome** — Countries are Different
- Result: Mutual Gains — Win-Win Outcome!

TRIPS

- Asymmetric Initial Policy Equilibrium — Countries Differ in Innovative Capability
- Gains from Cooperation: Free Rider Problem
- **Asymmetric Concessions:** Developing countries adopt Developed Country Standards of IP Protection
- **Symmetric Outcome** — Asymmetric Countries
- Result: Developed Countries Win, Developing Countries Lose!

FIGURE 2: An Internal Equilibrium

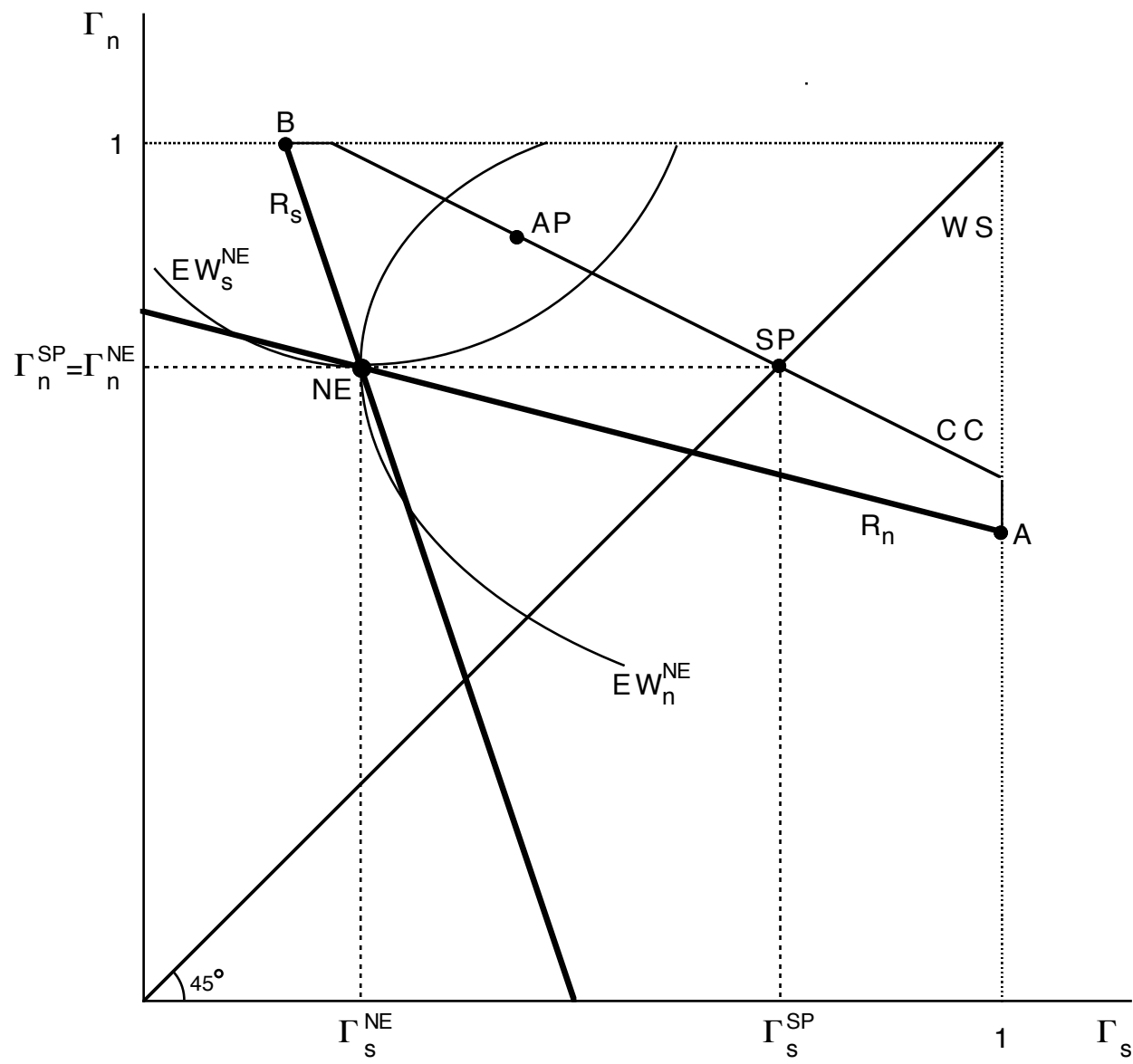
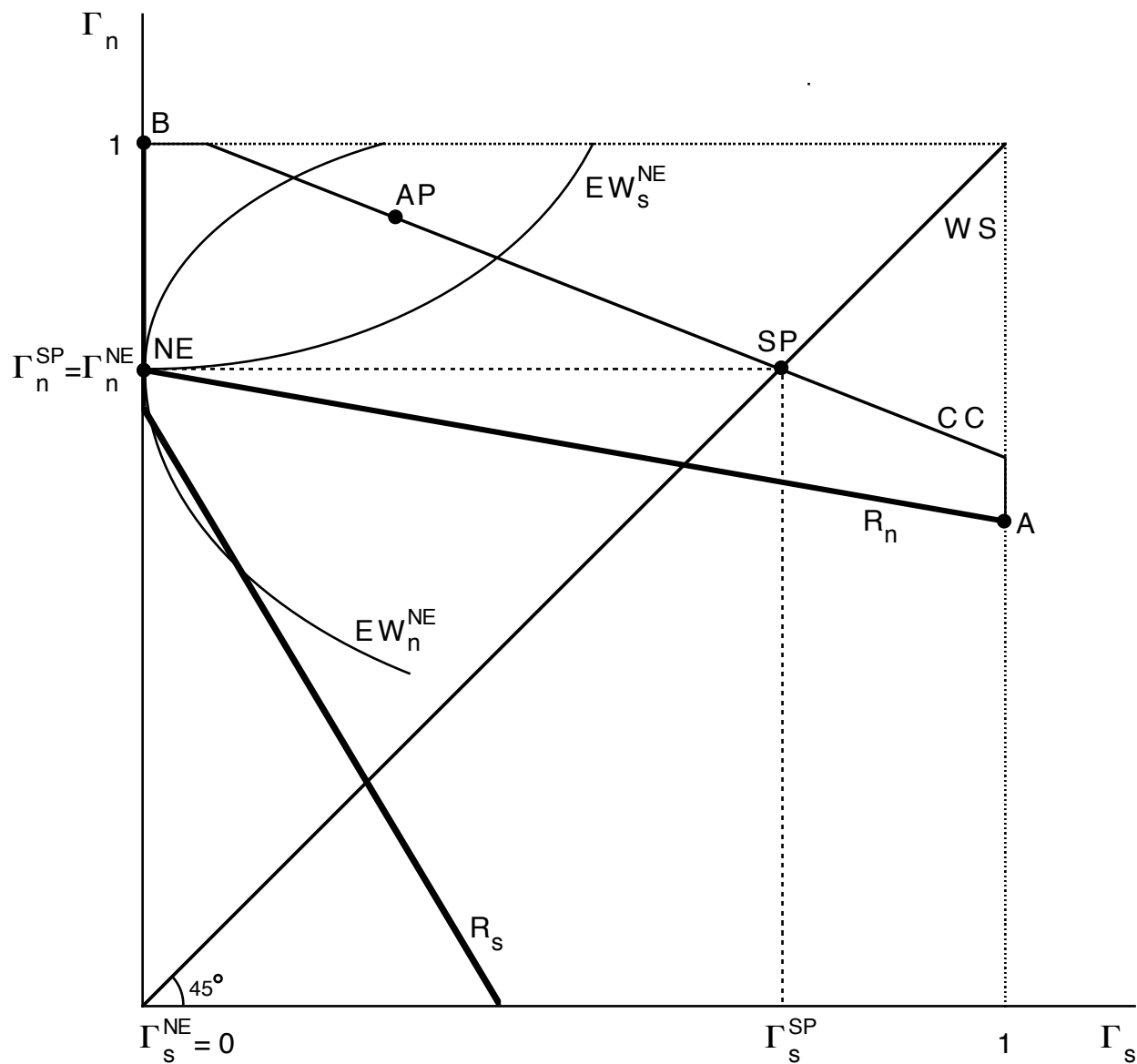


FIGURE 3: A Boundary Equilibrium



DANGLING QUESTIONS

Is the Current TRIPS Structure Good Global Politics?

- Fairness
- Development

Is the Current TRIPS Structure Good Economics?

- Enforcement Through Trade Penalties is Problematic