

Intellectual Property in a Global Economy

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Globalization means:

- For both **us** and **them**
 - markets expand
 - more imitators (competition)
 - more innovations available
 - increasing division of labor

Policy?

- Raise our IP protection?
- Get them to raise IP protection?
- Refuse to trade if they do not raise IP?

Academic View

- IP a “necessary evil”
- Optimal IP is not related to market size
- US/EU standard is necessary for global trade

Business View

- IP protection must increase with globalization
- IP good for business
- Imitation = Piracy

Popular View

- Globalization:
 - gets us cheaper imitations
 - takes away our jobs
 - gives away our ideas for free

Doubts

- Piracy does not *reduce* revenue
- Easier to recoup fixed costs in a larger market
- Wider/faster imitation foster innovation
- Ideas are not given away for free
- IP good for *some* business

Facts: Scope

- World real GDP has risen about 80 times during the 20th century
- Inc. and Pop. growth increased size of market by factor of 4-5 since 1950
- WTO expands market size of at least by 50%
- China and India are growing fast

Facts: Compensation

- Benefits to creators have increased (Britney versus Elvis)
- Revenues and exports of the copyright industry have gone up dramatically since 1980

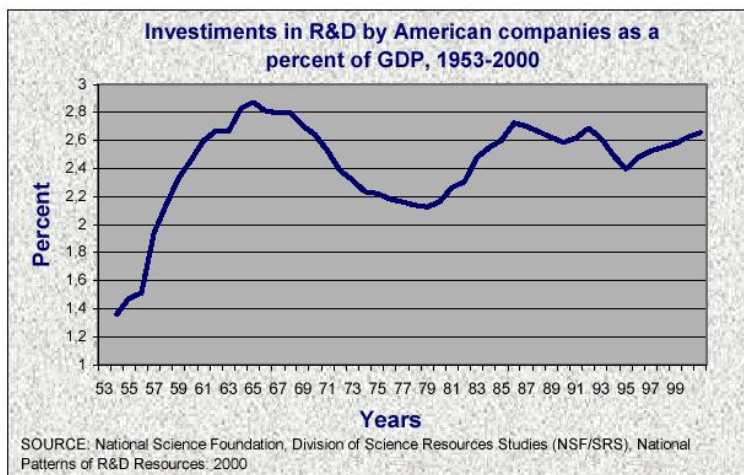
Facts: Trade

- Trade in Cultural Goods and Services
 - 1980-98 trade went from US\$95B to \$388B (UNESCO 2000)
 - 1977-96 copyright industries in USA grew three times rest of economy

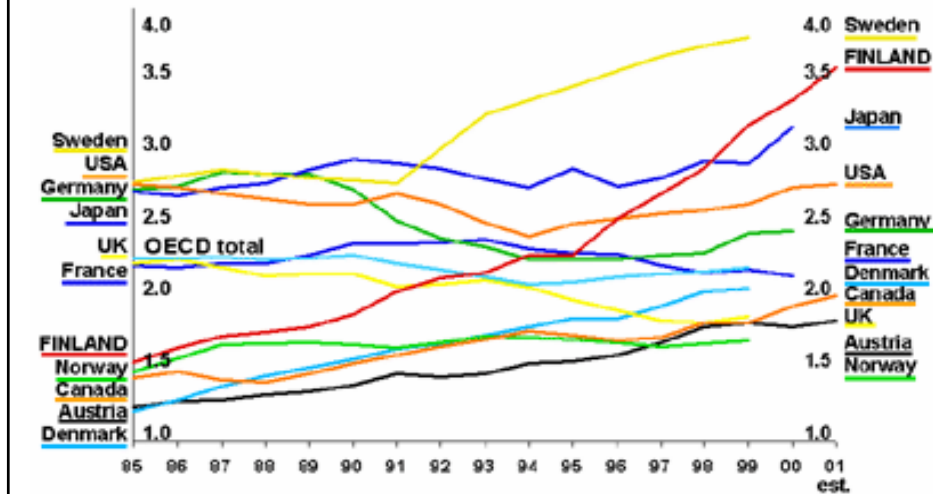
Facts: Music

- Global sales of recorded music (IFPI)
 - 1990: \$27 Billion
 - 1998: \$38 Billion
- Estimates of losses due to music piracy in the USA are about 6%

Fifty Years of R&D Investment



R&D in OECD countries (% of GDP)



Moral

- Despite huge increase in market size and much stronger IP protection
- R&D expenditure static since 1960s
- Practically no link between IP protection, R&D expenditure, growth

Patent Thicket

- Widely recognized as a major problem (e.g. software, genetic engineering, semiconductors)
- Widespread use of patent pools
- Widespread use of patents as quid pro quo

Copyrighting ideas

- Lessig and Vaidhyathan, among other, document the crucial role of old ideas in
 - music
 - literature
 - movies
 - scientific research
 - culture more broadly

Theory: Scale

- Assumption: IP due to fixed cost
- More people = more innovations
- More people = more demand of ideas
- More people = more competition among ideas

Theory: Tradeoff No 1

Tradeoff between introducing more ideas and making ideas socially useful by reducing monopoly power on each of them

Theory: Division of Labor

- Assumption: it takes old ideas to produce new ideas
- Growth means division of labor increases
- Market expansion means more specialization in ideas/inputs
- More licensing rights needed to create new idea (e.g. *Tarnation*)

Theory: Tradeoff No 2

Tradeoff between raising profitability of earlier inventions and increasing the chances of newer ones

Conclusion, Tradeoff No 1

- If market size increases, IP protection should be decreased unilaterally
- Optimal international protection generally lies in between “North” and “South” degree of protection

Conclusion, Tradeoff No 2

- As number of ideas input increases, patent/copyright makes innovation *less* likely
- Hence, as globalization and division of labor increases, optimal IP should decrease

Harmonization

- Harmonization should take place through a convergence of protection to the mean, not by raising to the max
- Note that, what's true for tariffs is true for IP protection
- Unilateral decrease of IP *may* be advantageous

Growth

- Market size and specialization increase
- Supply of innovative skilled labor does not nearly increase as fast
- With IP protection constant
- Increase in rents of IP-protected labor
- Decrease in the rate of innovation

Harmonization and Growth

As trade and growth increase market size, harmonized levels of IP protection should monotonically decrease, in analogy with tariffs.

Aside on Rent Seeking

Both in the case of Market Size and of Complexity the rent seeking aspect of IP is not considered.

When rent seeking is incorporated the case in favor of lower IP protection is strengthened

Finale

What's good for Disney Co. is not
always good for America, not even
for the (rest of) corporate America