TRIPS AT 20: EVIDENCE OF ECONOMIC IMPACTS

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Introduction

• The TRIPS Agreement is one of the foundations of the WTO.
• Meeting TRIPS requirements has significantly expanded the global scope of legal IP rights.
• Other factors include preferential trade agreements and IP agreements outside TRIPS.
• Independent measures point to significant increases in IP rights, especially among developing countries. (Chart)
• By some measures IP legal reforms have outstripped trade liberalization since 1995.
• Is there evidence of any economic impacts?
Figure 2.1: Changes in the GP Index by Income Quartiles
What is this reformed system supposed to accomplish?

• Improve global and national incentives for innovation and creativity.
• Encourage R&D in technologies meeting the needs of poorest countries.
• Expand trade in IP-sensitive goods.
• Support markets for international knowledge transfer and diffusion.
• Improve consumer guarantees of product origin (raise safety and quality).
Results from economic research

• Caveats:
  • Research is difficult due to data scarcity, measurement problems, causation issues, and confounding factors.
  • Relatively little research focuses on TRIPS itself.
IPR reforms and measured innovation

• Remarkable how little is known about this fundamental question.

• Casual evidence:
  • Developed economies have not become more innovative (R&D productivity) relative to trend rates.
  • Numerous emerging economies are engaging in more innovation as measured by patenting abroad (charts).
  • But this trend is not widespread among developing countries.
Patent Applications at EPO and USPTO: BRICS (Brazil, China, India, Russian Federation, and South Africa)
Patent Applications at EPO and USPTO: Malaysia, Republic of Korea, and Singapore
Patent Applications At EPO and USPTO: Argentina, Chile, and Mexico
IPR reforms and measured innovation

• Econometric evidence:
  • IP reforms expand international patenting by firms in middle-income developing economies but this depends on thresholds of education, governance, and other factors.
  • US MNEs do expand economic activities of local affiliates in larger developing countries after reforms.
  • One major short-run effect of reforms is more foreign patenting in local economies.
  • There is little evidence that TRIPS reforms have expanded private incentives to invest in R&D for needs of poor countries.
  • But IPRs are supportive elements for such work in universities, foundations, and organizations.
IPR reforms and technology markets

• It is not that surprising that innovation effects are limited.
• But IPRs are likely more important for supporting technology markets and knowledge transfers.
• IPRs should address market-information problems in technology trade via:
  • raising the ability to make profits where imitation costs are low;
  • reducing contracting costs and raising legal certainty;
  • reducing the risk of opportunism;
• Casual evidence:
  • Trade in high-tech, intra-firm inputs continues to rise faster than total trade.
  • FDI and licensing volumes also rise relatively rapidly (charts).
  • Rapid emergence of global innovation networks.
Receipts and Payments of Royalties and Licensing Fees: WTO High Income Economies (38 countries; current $billion)
Receipts and Payments of Royalties and Licensing Fees: WTO Upper-middle Income Economies (18 countries; current $billion)
IPR reforms and technology transfer

- Econometric evidence:
  - OECD exports of high-technology goods rose faster to countries with larger patent reforms post-TRIPS.
  - Manufacturing exports from middle-income economies rose significantly post-reforms.
  - Patent laws matter to OECD firms in choosing production locations in Eastern Europe.
  - Licensing to US MNE affiliates in emerging countries rose post-reforms and so did affiliate R&D.
- There is little evidence of such effects in the poorest and smallest countries.
Observations

- Pro-innovation effects of TRIPS are hard to identify.
- But formal innovation is rising in emerging economies.
- TRIPS seems to improve the “internal plumbing” of international technology markets.
- Greater transfer of higher quality technologies is consistent with stylized facts:
  - rapid expansion of medium-technology production and exports;
  - emergence of R&D globalization and innovation networks;
  - faster real wage growth in emerging countries than MCs.
Conclusions

• The data and evidence suggest that WTO members have seen:
  • Substantial legal reforms in IPRs;
  • Increasing engagement with the utilization of IPRs;
  • Growing market transactions in technological information protected by IPRs.
• The extent of this engagement varies by income grouping.
• But there are many more issues to study, such as
  • Copyrights and creativity in developing economies;
  • How should we measure trade in intangibles?
  • How have patent reforms affected competition and pricing in pharmaceuticals and other goods?
  • Have IP reforms supported price segmentation and how has this affected product availability?