



TRIPS AT 20: EVIDENCE OF ECONOMIC IMPACTS

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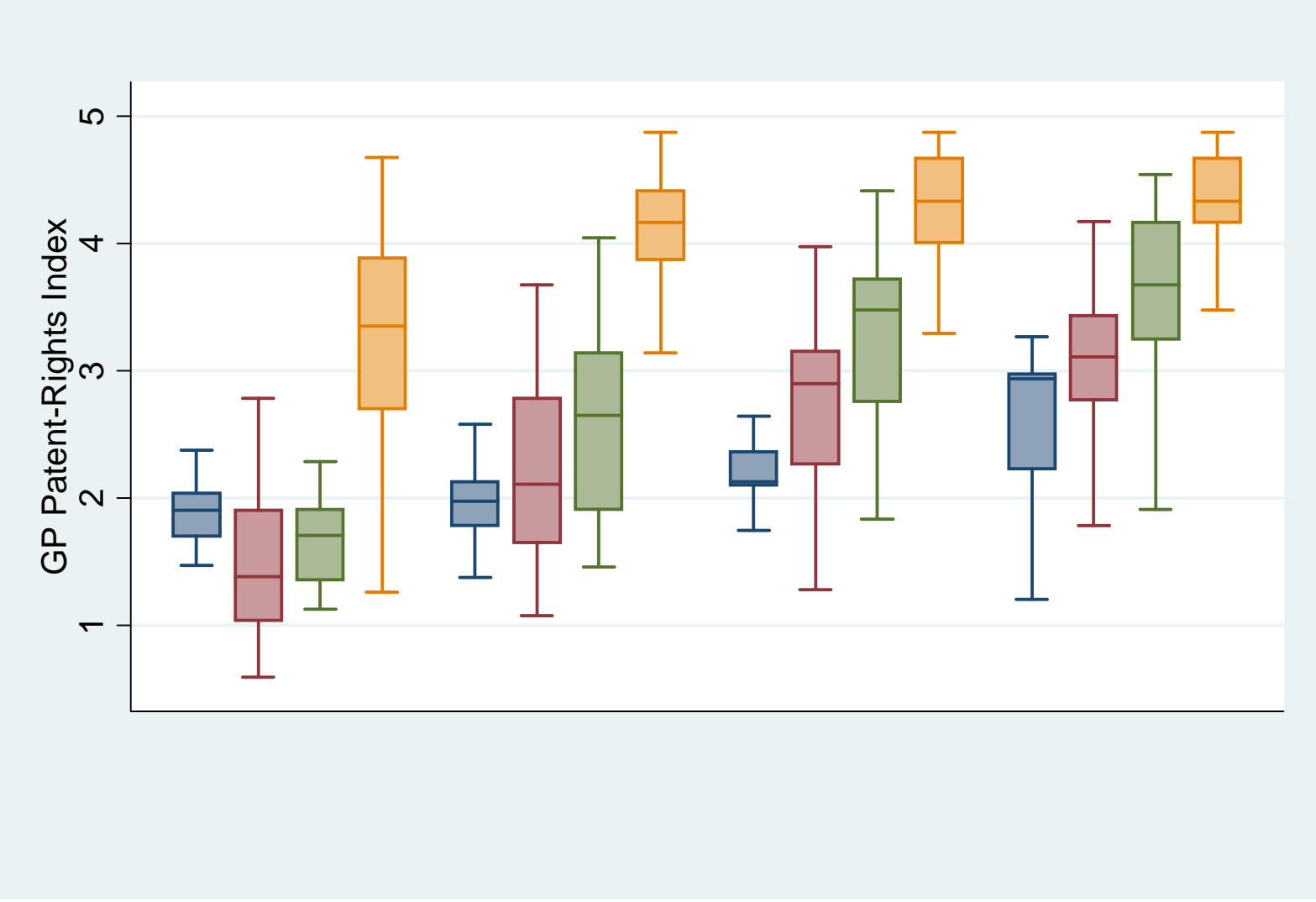
University of Colorado Boulder

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Introduction

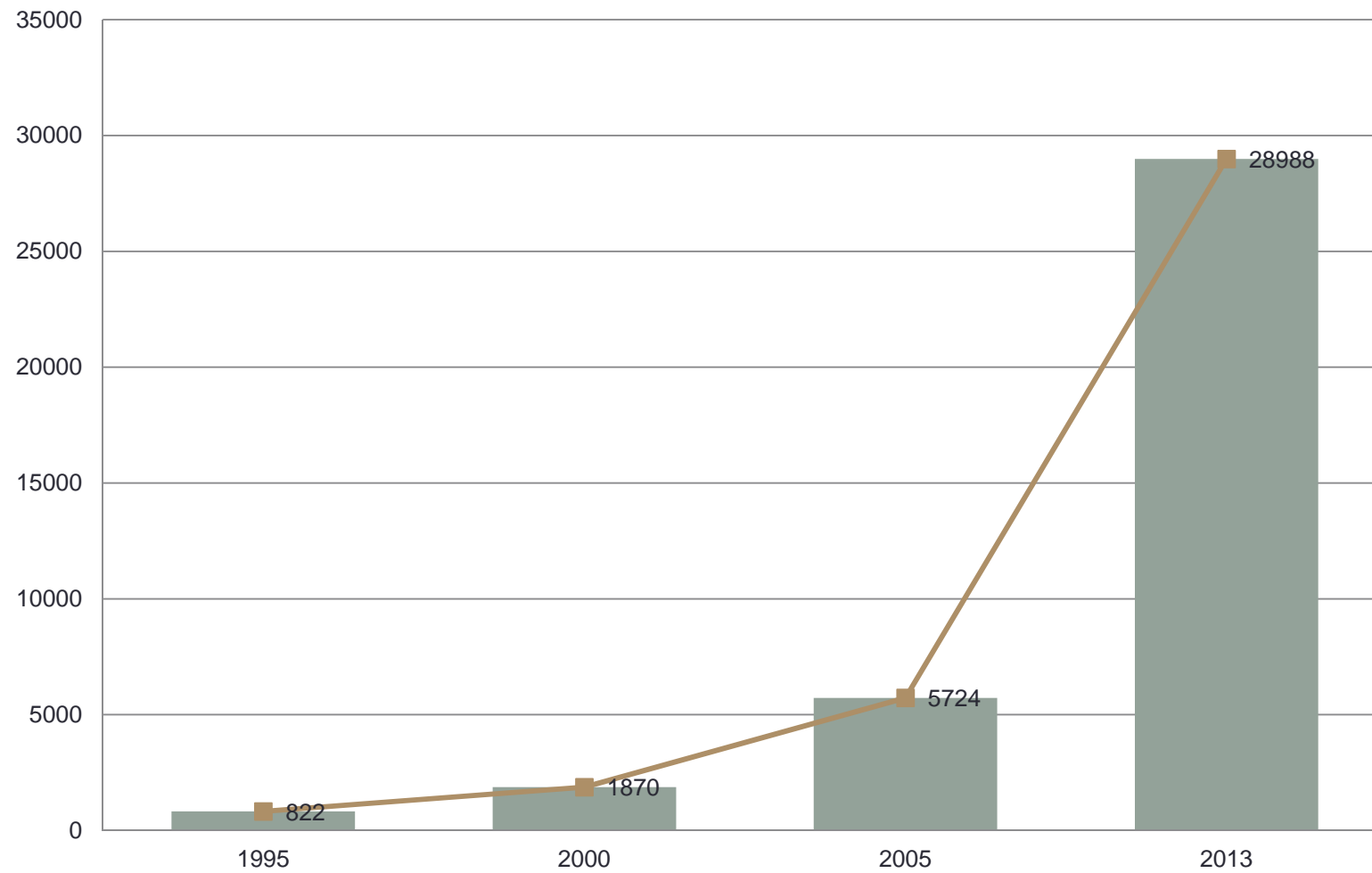
- The TRIPS Agreement is one of the foundations of the WTO.
- Meeting TRIPS requirements has significantly expanded the global scope of legal IP rights.
- Other factors include preferential trade agreements and IP agreements outside TRIPS.
- Independent measures point to significant increases in IP rights, especially among developing countries. (Chart)
- By some measures IP legal reforms have outstripped trade liberalization since 1995.
- Is there evidence of any economic impacts?

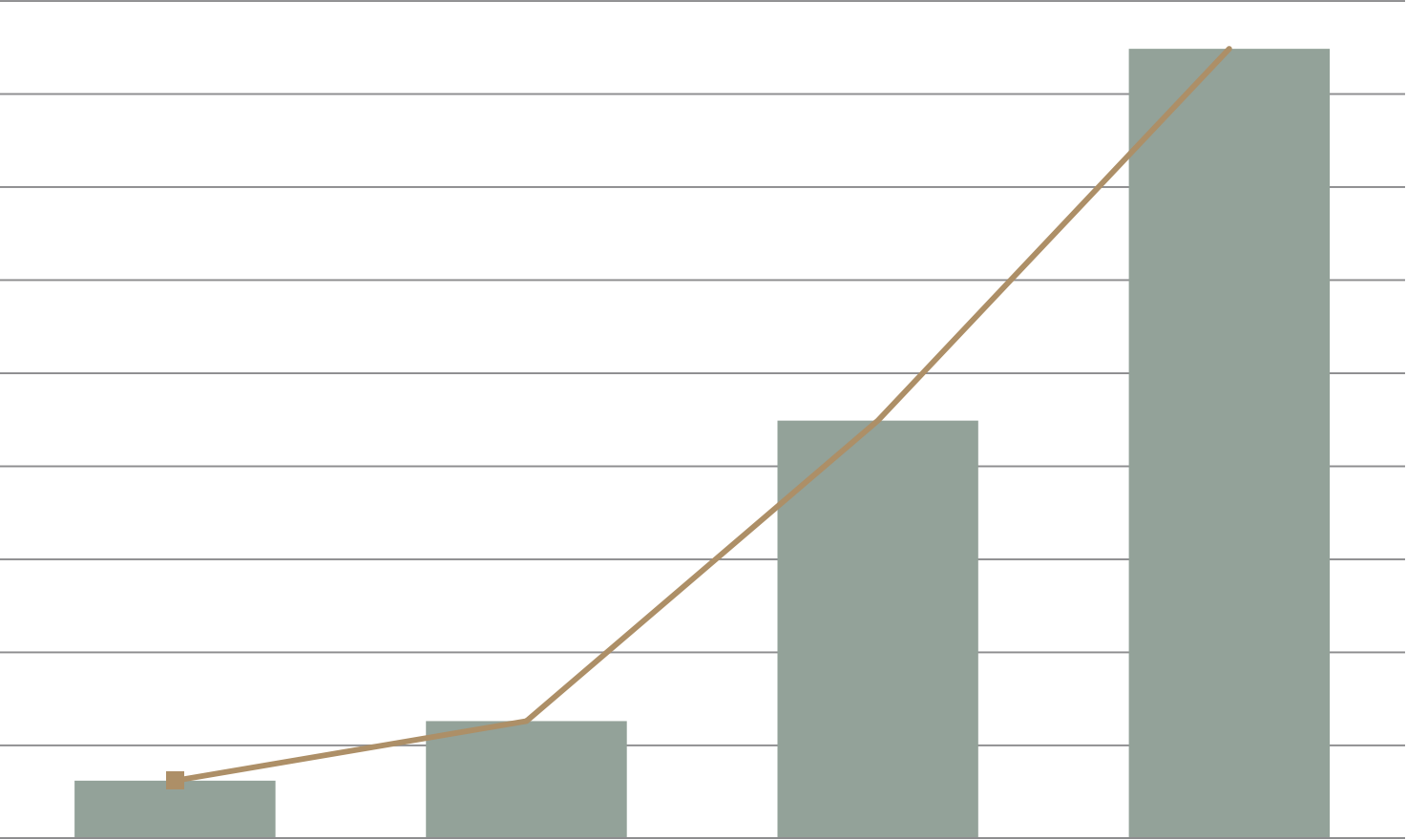


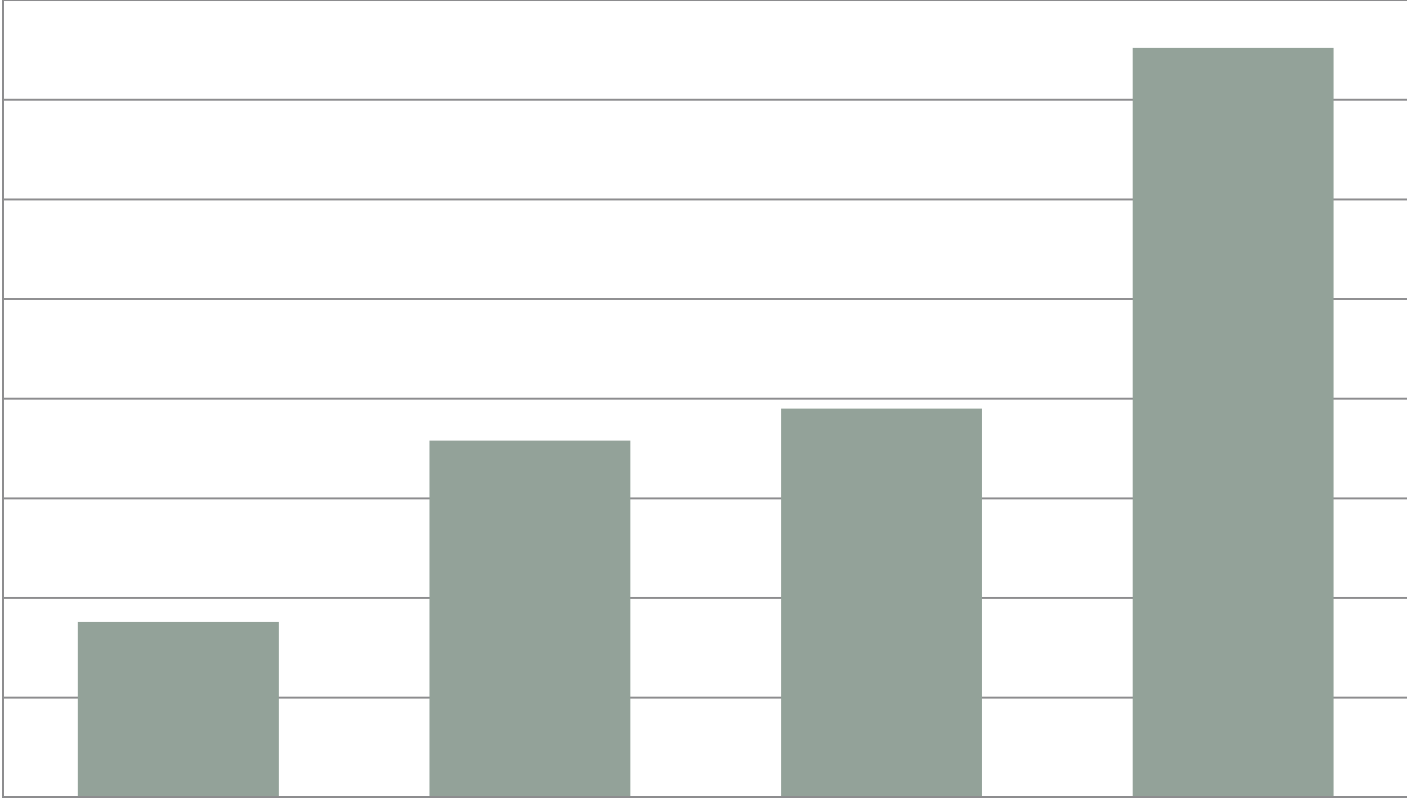




Patent Applications at EPO and USPTO: BRICS (Brazil, China, India, Russian Federation, and South Africa)







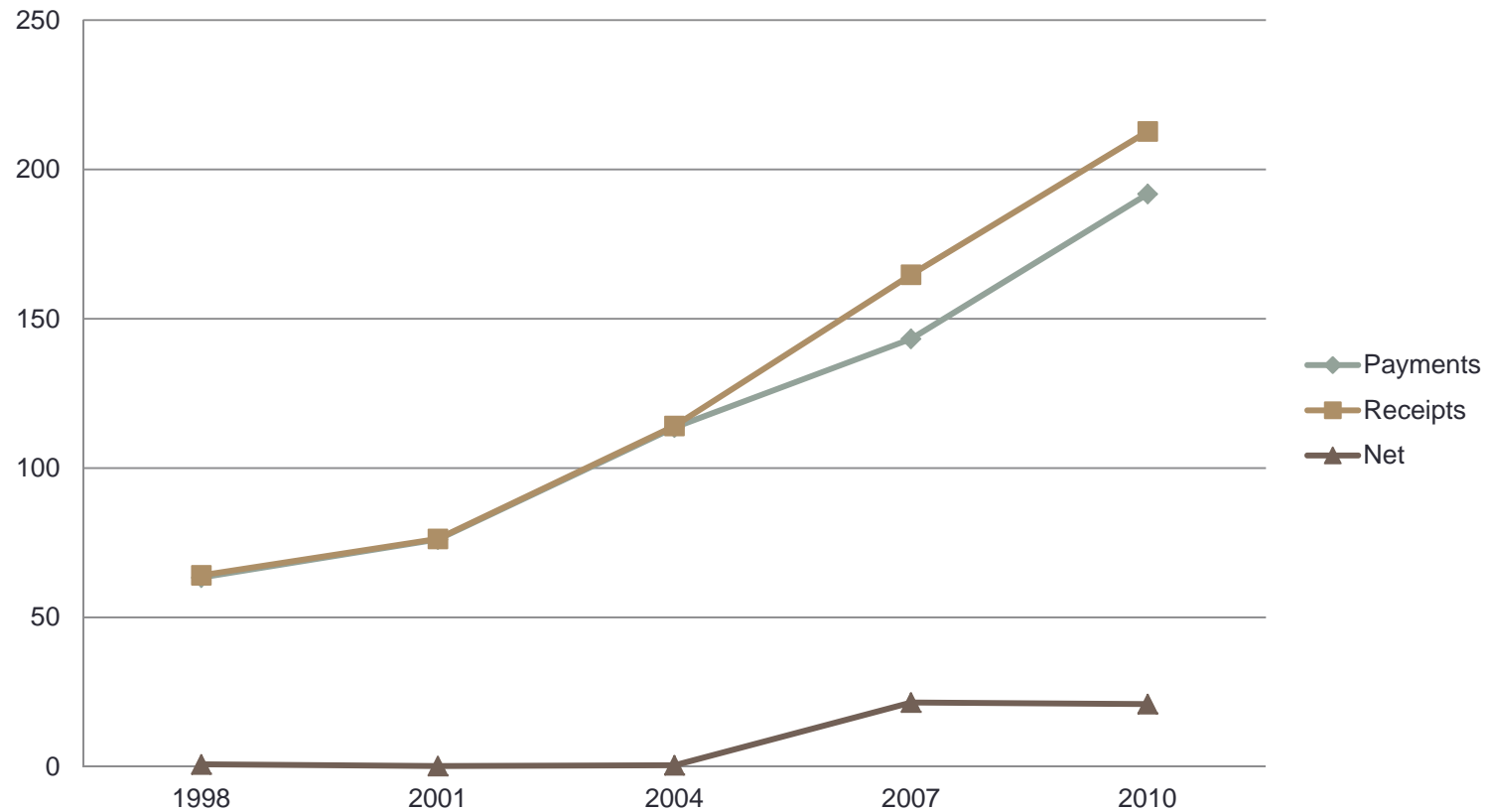
IPR reforms and measured innovation

- 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.

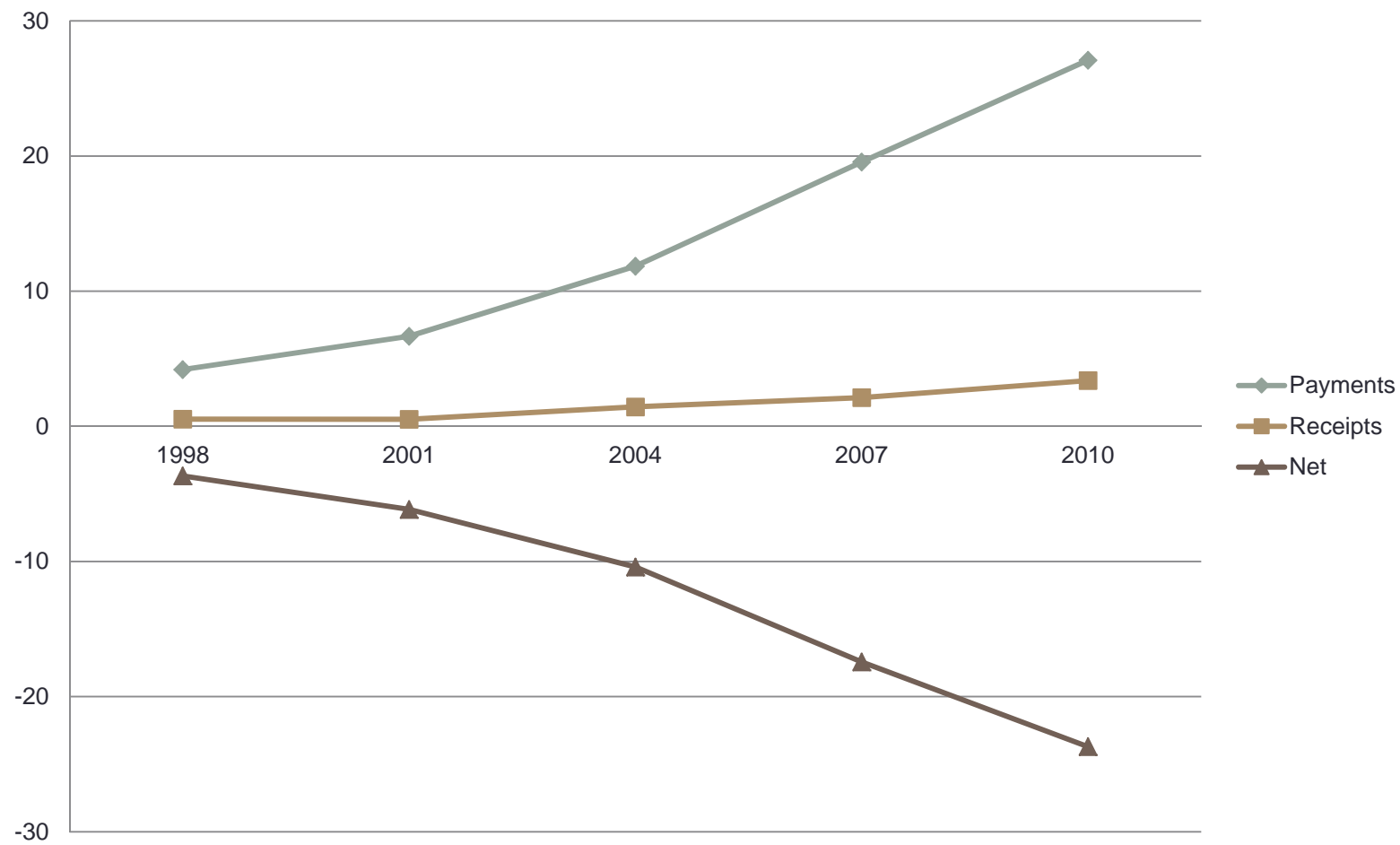
IPR reforms and technology markets

- 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:
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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?