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?

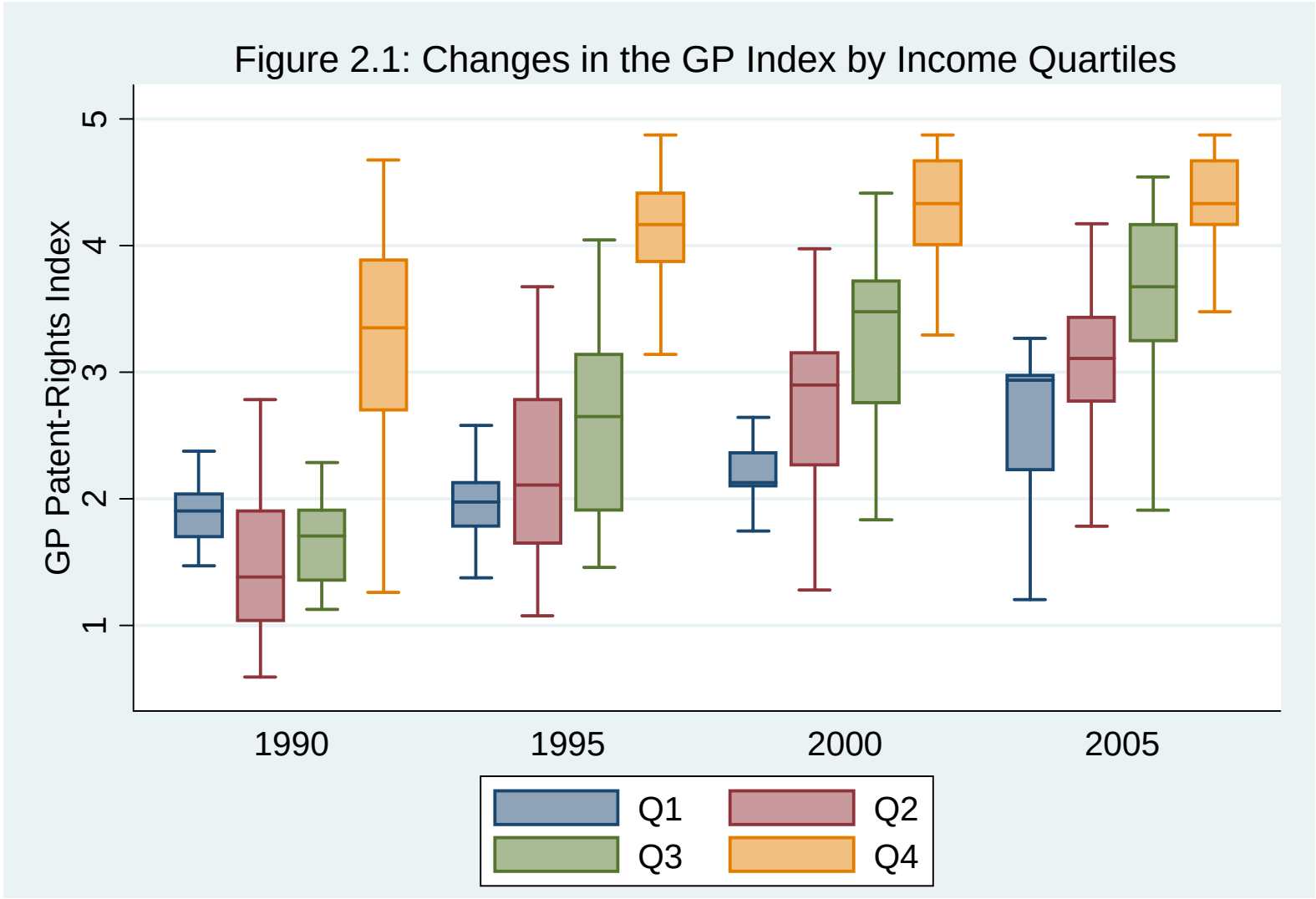


Figure 2.1: Changes in the GP Index by Income Quartiles
GP Patent-Rights Index
1
2
3
4
5
1990
1995
2000
2005
Q1
Q2
Q3
Q4

What is this reformed system supposed to accomplish?

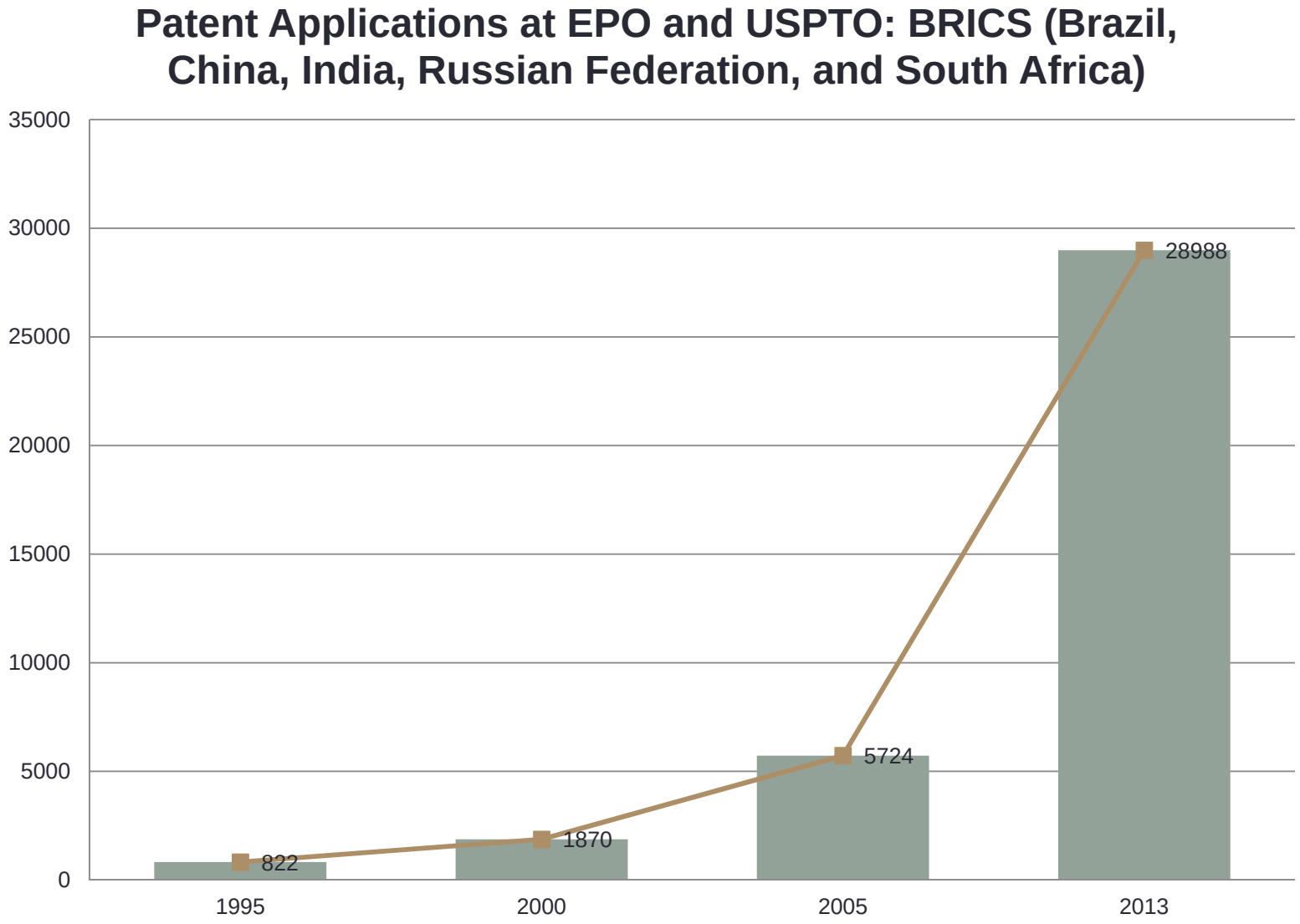
- Improve global and national incentives for innovation and creativity.
- Encourage R&D in technologies meeting the needs of poorest countries.
- Expand trade in IP-sensitive goods.
- Support markets for international knowledge transfer and diffusion.
- Improve consumer guarantees of product origin (raise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

Results from economic research

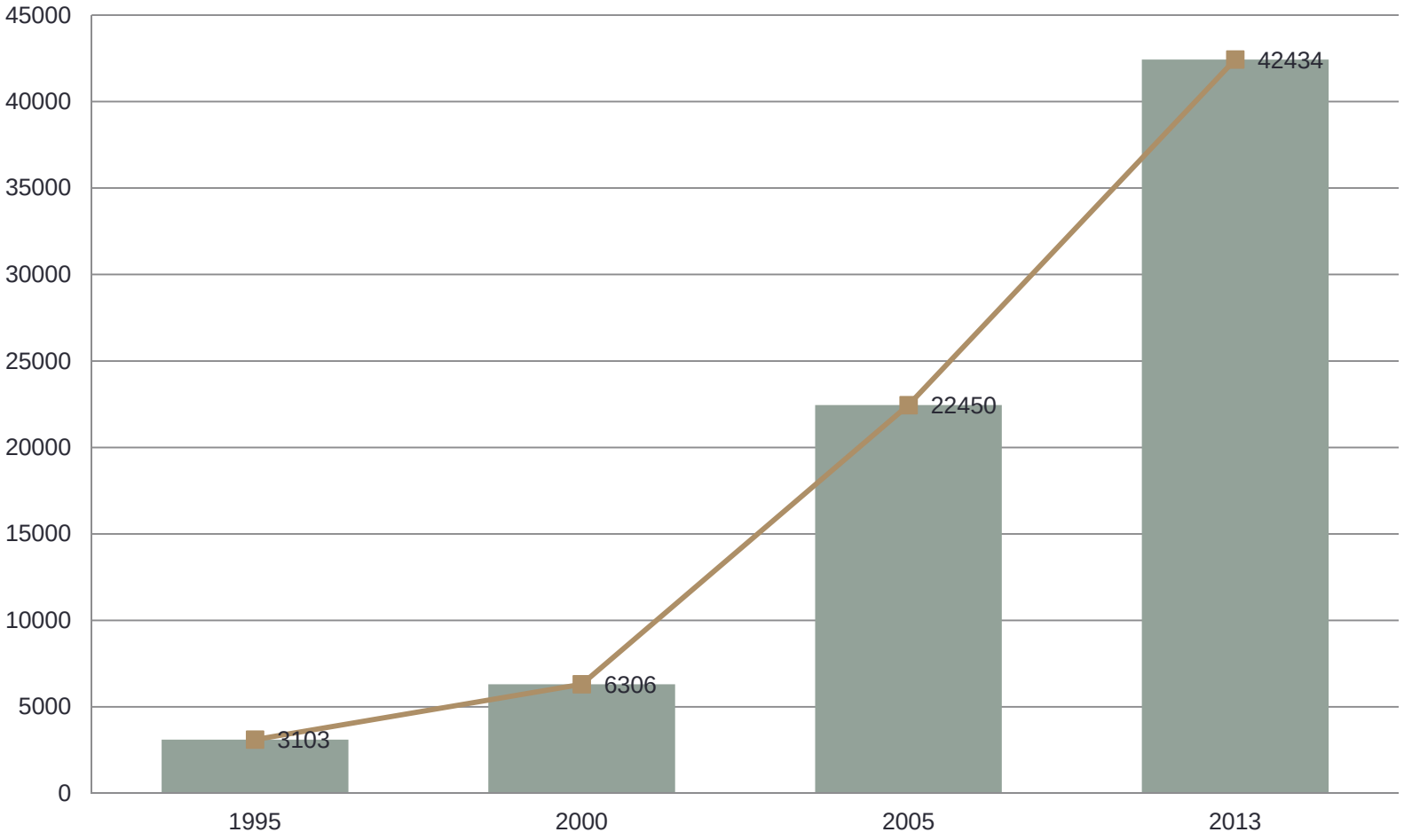
- Caveats:
  - Research is difficult due to data scarcity, measurement problems, causation issues, and confounding factors.
  - Relatively little research focuses on TRIPS itself.

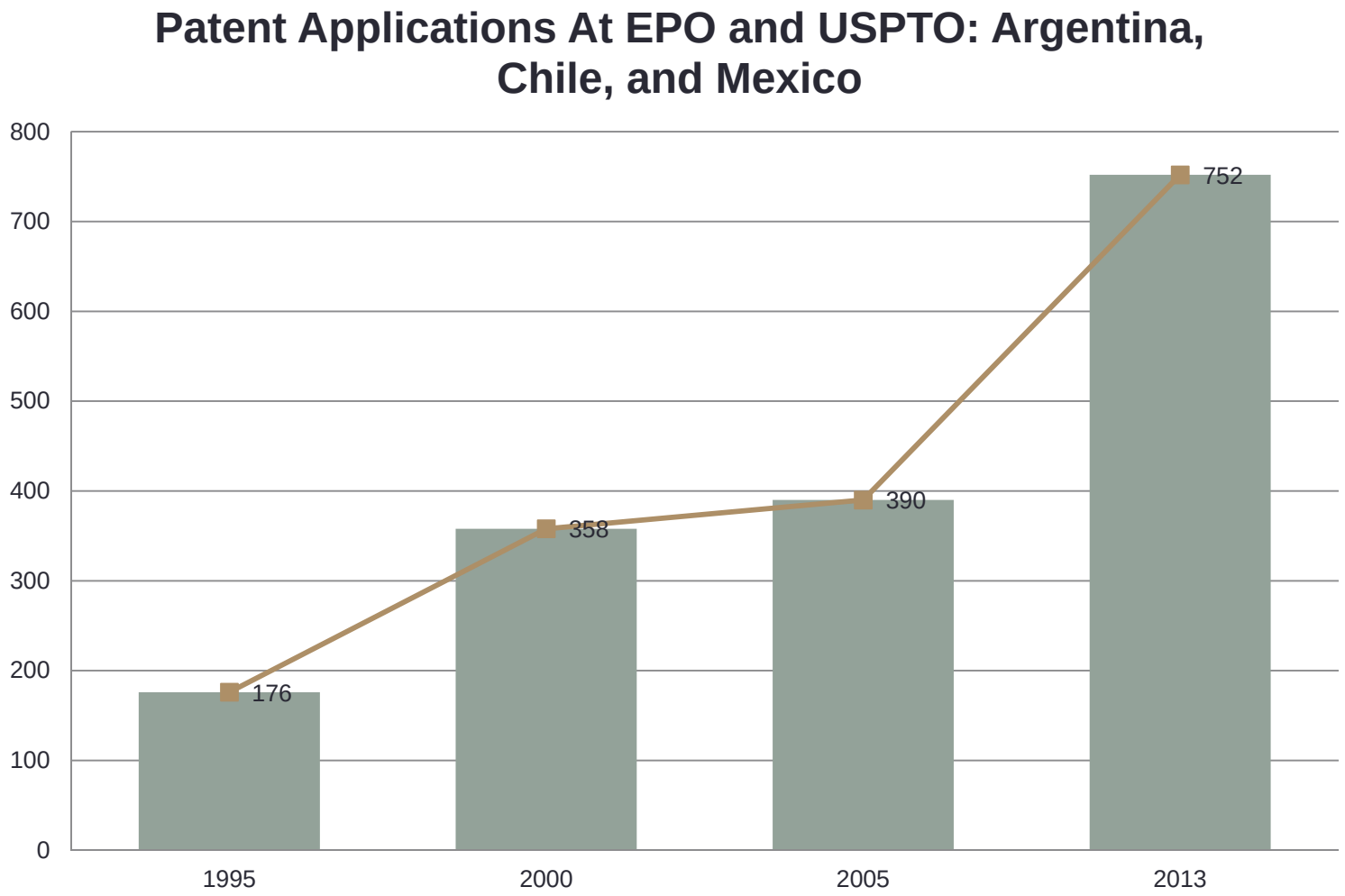
IPR reforms and measured innovation

- 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)
35000
30000
25000
20000
15000
10000
5000
0
822
1870
5724
28988
1995
2000
2005
2013

Patent Applications at EPO and USPTO: Malaysia, Republic of Korea, and Singapore




Patent Applications At EPO and USPTO: Argentina, Chile, and Mexico
800
700
600
500
400
300
200
100
0
176
358
390
752
1995
2000
2005
2013

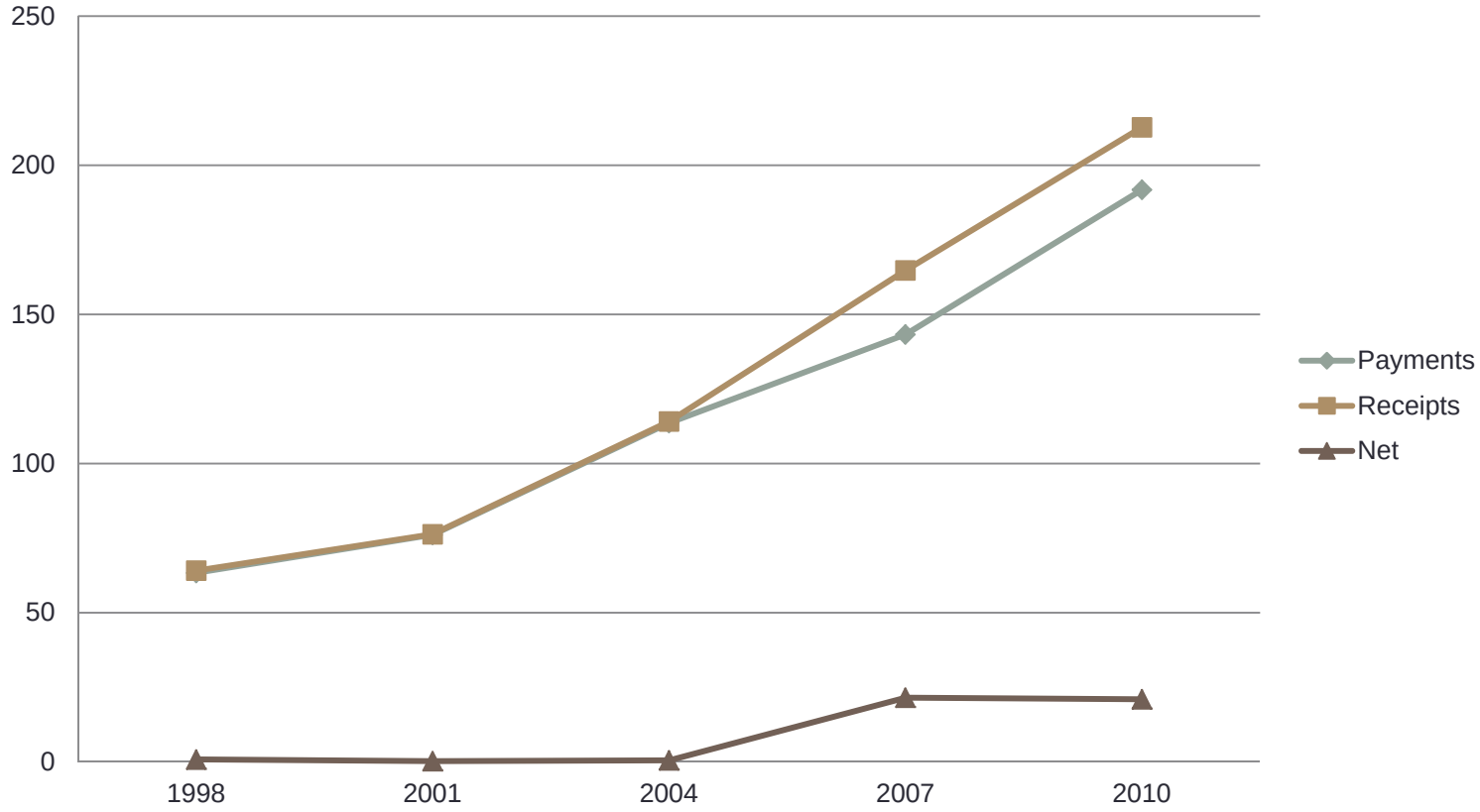
IPR reforms and measured innovation

- 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.

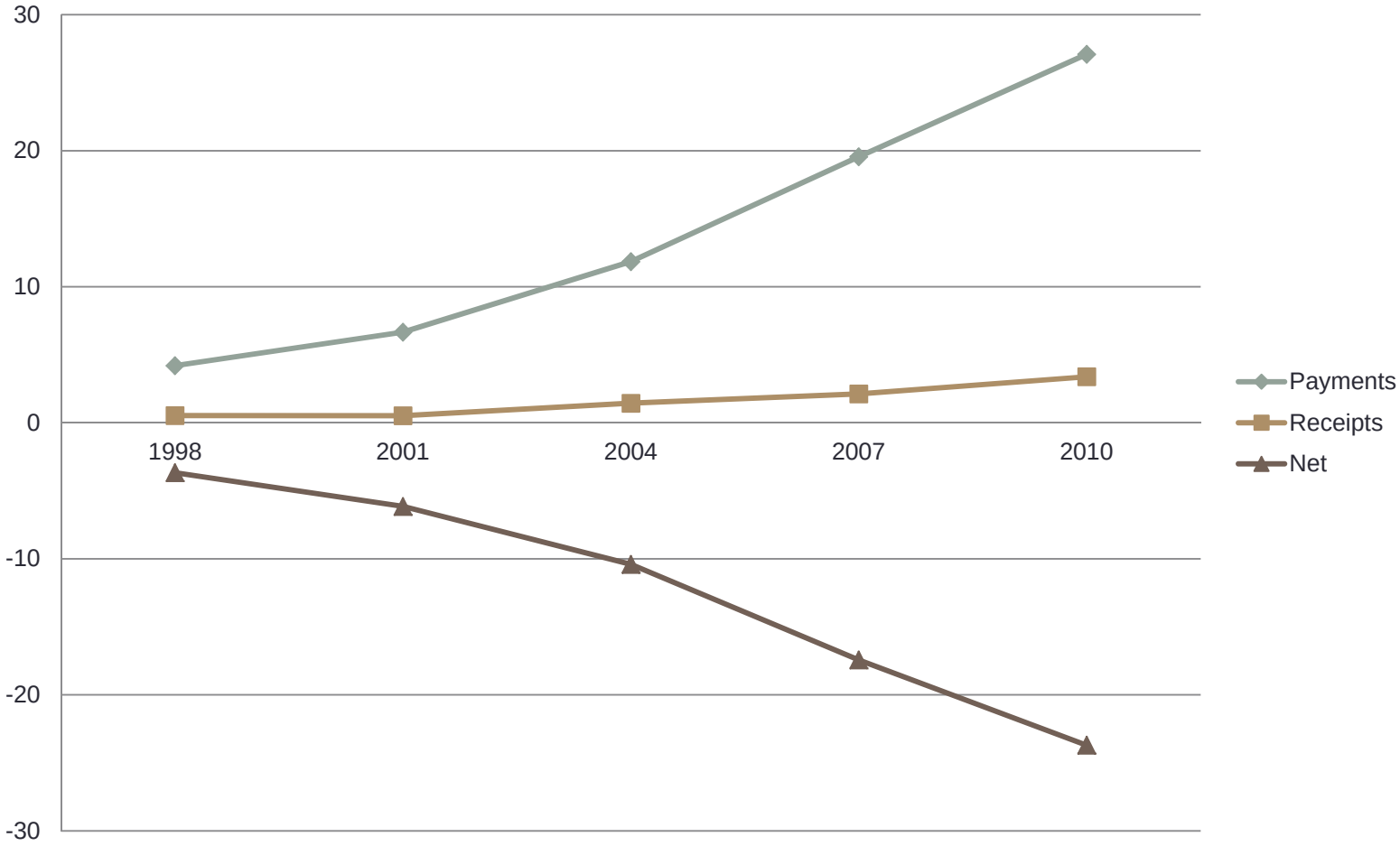
IPR reforms and technology markets

- 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?