Have International Investment Agreements (IIAs) had an Impact on Science, Technology, and Innovation (STI) in the Asia-Pacific Region?

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Summary
Research question 1: to examine the landscape of BITs in regard to STI in the Asia-Pacific region.

Analysis:

- **Data coverage**: Review 657 of the 1019 BITs currently in force with at least one part in the Asia-Pacific region.

- **STI provision**: technological cooperation, information technology, permits or licenses related to science and technology, repatriation of technology related profits.

- **Sample selection**: The sample reflects well the population of 1019 in terms of "classification" (North-North, North-South, South-South), "income classification" (HIC, UMIC, LMIC, LIC), and across time, but omits BITs with non-English text (60 French, 40 Russian, 23 Spanish, 26 others).
Main trends:

- STI provisions are found in 55% of BITs in Asia.

- The share of BITs including STI has been increasing in the last few years.

- STI provisions are included in: 1. transfer, 2. treatment, 3. preamble, 4. scope and definition, 5. other, 6. Admission and establishments.

- Similar share of BIT with STI by income level of partners, and in North-North, North-South, and South-South (with more transfers in South-South and LIC).

- Heterogeneity in the number and share of BITs with STI by country (top 3 numbers: China (64), Turkey (56), South Korea (32); top 3 share: Australia (100%), Japan (100%), Malaysia (90%). UK (0), U.S. and France (0 or marginal).
Research question 2: Effect of BITs on STI development in Asian-Pacific countries.

Analysis:

STI development: Proxied by the level of export sophistication.

Main trends:

- Quite similar export sophistication gap in North-North (0.14), North-South (0.18), South-South (0.13) BITs with STI.
- Quite similar export sophistication gap between partners having a BIT without STI (0.14) and partners having a BIT with STI (0.17).
- Greater differences for specific provisions:
  - BITs with STI provisions in "preamble", "scope", or "definition": with lower export sophistication of partners.
  - BITs with STI provisions in "Admission and Establishment": with higher export sophistication of partners.
  - BITs with STI provisions in "Transfer": between technologically advanced countries and less advanced countries.
- Positive correlation between export sophistication and cumulative numbers of BITs with STI provisions for China, South Korea, and India (1988-2015).
Comments
Very interesting topic to focus on the STI provisions of BITs.

1. **Overall trends**

   - Figure 9 shows the number and share of BITs with STI provisions by countries, categorised by income level (for countries with at least 10 BITs). Omits entirely the income category LIC, which in total signs more BITs than UMIC and as much as LMIC.
2. STIs and Main Investors in Asia-Pacific Region

- From figure 9 it seems that main investors in the Asia-Pacific region sign fewer BITs and include less STI provisions than other investors (0 for U.S., U.K., France). How can we explain this trend?

3. STIs and Main Outflow Investors in Asia-Pacific Region

- Asia-Pacific region continues to grow as a major outward investor.
- The main outward investors are Hong Kong China, China, Singapore, South Korea, Malaysia, India, and Turkey.
- From Figure 9, it appears that these countries have the highest number of BITs and the highest share of SIT included in BITs.
- It might be that a large amount of BITs and SIT are signed to protect FDI outflows from the Asia-Pacific region.
4. Intellectual Property Rights (IPR) and Transfer versus STI provision

▶ **With STI in Preamble**: recognition that the promotion and protection of investments will stimulate the development of the mutually beneficial commercial, economic, scientific and technical cooperation (such as Lebanon-Russian Federation, 1997).
  ▶ Not specific about how to facilitate technology cooperation.

▶ **With STI in Treatment**: importance to issue technology related permits and licenses, or admission of technical personnel.
  ▶ Could this be included in "fair and equitable treatment" anyway?

▶ **With STI in Transfer**: no restrictions on payments in respect of technical service and management fees.
  ▶ Could this be included in Transfer anyway (which guarantees that investors are free to transfer capital back to their home country)?

▶ IPR are included in 99% of BIT and STI in 55% of BITs (in this sample).

Is the STI provision distinctive enough to what is already provided by BITs?
4. **STI and export sophistication:**

- Correlation between STI, which is bilateral, and "total" export sophistication. Difficult to compare the effect of BIT with STI, BIT without STI and no BIT on technological development in Asia and Pacific region.

- Suggestion 1: compare average export sophistication of countries with a large number of BITs (above the median) with average export sophistication of countries with a low number of BITs (below the median), and with countries with zero BIT (if any).

- Suggestion 2: same comparison with STI (countries with large number of STI, vs low number of STI, vs zero STI)

- Suggestion 3: compare average bilateral export (or FDI) when a BIT is in place and when there is no BIT.

- Suggestion 4: compare average bilateral export (or FDI) when a STI is in place and when there is no STI.