The Trans-Pacific Partnership and Asia-Pacific Integration: a Quantitative Assessment

Peter A. Petri\textsuperscript{1,3,5}, Michael G. Plummer\textsuperscript{3,4} and Fan Zhai\textsuperscript{2}

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Challenges of *ex ante* assessment

- Template, membership are uncertain
- Other regional trade agreements matter
- Methodological concerns
  - Underestimations of effects
  - Overestimation of liberalization
- Mega-economic effects
Asian and TPP tracks

- RCEP 16: Cambodia, India, Laos, Myanmar
- China and Hong Kong
- Australia, Brunei, Malaysia, New Zealand, Singapore, Vietnam
- PNG, Russia, Taiwan
- Canada, Chile, Mexico, Peru, United States
- TPP 11, TPP 16, TPP 16
- TPP 11
- TPP 16

Slide 3
Methodology

• Model
  – 18-sectors, 24-regions CGE

• Innovations
  – Baseline projections look ahead to 2025
  – Detailed modeling of existing and future agreements
  – Firms assumed to differ in productivity (Melitz model)
  – Modeling of investment effects (albeit side-model)
  – Some innovations increase, some reduce estimates

• Ongoing analysis, new work reported:
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Differences on key disciplines…

• Intellectual property
• Services
• Investment
• Competition (SOEs)
• Labor, environment
• Agriculture (sugar, dairy, rice)
• Rules of origin (esp. textiles for Viet Nam)
…suggest a contest of templates

- **Asian template** will target comparative advantage of emerging economies: market access in manufacturing

- **Trans-Pacific template** will target comparative advantage of advanced economies: services, investment, intellectual property

- Each produces gains, both needed for largest gains
Asian and Trans-Pacific templates (1)

Tariff reduction (%MFN)

Years in force

Asian

Trans-Pacific
Asian and Trans-Pacific templates (2)

Average score

- Tariffs
- Nontariff barriers
- E-commerce
- Agriculture
- Rules of origin
- Customs
- Sanitary and phytosanitary...
- Technical barriers to trade
- Trade remedies
- Government procurement
- Investment
- Services
- Competition
- Intellectual property rights
- Labor
- Environment
- Disputes
- Cooperation
- Small and medium enterprises
- Science and technology

Asian agreements
US agreements

Slide 8
Key simulation results

• The better the template, the larger the gains
• The larger the area, the larger the gains
• Gains are mainly from trade and investment creation
• Country gains depend on trade and investment advantages, initial barriers, prior FTAs
Template effects: Chinese incomes
($billion)

TPP>FTAAP
Asia>FTAAP
Scale effects: income gains, 2025
($billion)
Sector effects: % trade increase, 2025

- TPP-16
- RCEP
- FTAAP

- Agriculture/food
- Mining
- Manufacturing
- Services
Adjustment effects: United States (TPP track)
Country income gains, 2025
($billion)

<table>
<thead>
<tr>
<th></th>
<th>2025</th>
<th>TPP11</th>
<th>TPP16</th>
<th>RCEP</th>
<th>FTAAP</th>
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<tbody>
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<td>United States</td>
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<td>108</td>
<td>0</td>
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<td>China</td>
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- Japan: TPP
- Korea: RCEP
- ASEAN: TPP
## Country income gains, 2025

($billion)

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China and US:
- opposed on TPP/RCEP
- aligned on FTAAP
## Country income gains, 2025

(% over baseline)

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- **ASEAN**: TPP
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The economics of the tracks…

• The tracks are **positive-sum games** with gains ranging up to $2 trillion

• They represent **competitive liberalization**
  – First competition
  – Then enlargement and overlapping membership
  – Finally consolidation, with China and US gaining most

• Each track begins to **clean up “noodle bowl”**
... argues for supportive policies

- “Just do it” in 2013
- Balance depth of agreement against expansion to other countries
- Create dialogue on convergence of TPP and Asian tracks
- Pursue third track of China-US cooperation consistent with eventual FTAAP
This website provides research papers, results and data from an ongoing study of trade flows and trade agreements in the Asia-Pacific region, with particular attention to the Trans-Pacific Partnership (TPP) and intra-Asian negotiations. The principal researchers are Peter A. Petri, Michael G. Plummer and Fan Zhai; Nian Lin provides research support.

The team gratefully acknowledges the support of the East-West Center, the Peterson Institute for International Economics, and the Asia-Pacific Center of the Brandeis International Business School. Information on this website is generated in our capacity as independent researchers and does not represent the views of any institution with which we are affiliated or that provides support.

The website is in development and questions and suggestions are appreciated!

Overview slide Presentation
Peter Petri, Michael Plummer and Fan Zhai
Additional slides
Concerns with past studies

- **Underestimates** of consequences of major initiatives (Kehoe 2005)
- **Omission of key effects** such as productivity gains and FDI increases
- **Overstatement** of liberalization effects (Productivity Commission 2010)
Melitz model: high productivity firms export

- Distribution of firms
- Firm productivity
- Firm profits
- Exporting firms
- Less fixed trade cost
- Export profit
Simulating agreements

- Simulations change:
  - Tariffs
  - Utilization rates of preferences
  - NTBs (goods and services)
  - Costs associated with ROOs
  - Foreign investment

- Calculating changes in barriers:
  \[ R = \lambda \cdot P \cdot S \]
  - Reduction in barriers
  - Maximum actionable reduction
  - Policy effects matrix
  - Score matrix

- Use largest \( R \) if multiple agreements apply
Sample of agreement scores
(composite scores of three measures 0 – 1)

<table>
<thead>
<tr>
<th>Agreement</th>
<th>Year</th>
<th>TBT</th>
<th>Gov. procurement</th>
<th>Investment</th>
<th>Labor</th>
<th>Cooperation</th>
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<tbody>
<tr>
<td>ASEAN-China</td>
<td>2005</td>
<td>0.49</td>
<td>0.00</td>
<td>0.35</td>
<td>0.00</td>
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<td>P4</td>
<td>2006</td>
<td>0.87</td>
<td>0.85</td>
<td>0.48</td>
<td>0.61</td>
<td>1.00</td>
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<td>ASEAN-Korea</td>
<td>2007</td>
<td>0.57</td>
<td>0.04</td>
<td>0.56</td>
<td>0.00</td>
<td>0.56</td>
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<tr>
<td>Korea-US</td>
<td>2012</td>
<td>0.85</td>
<td>0.81</td>
<td>1.00</td>
<td>0.92</td>
<td>0.00</td>
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Source: FTA database. Composite score based on measures of (a) coverage of provision subtopics, (b) length of coverage, and (c) enforceability of provisions.
Sensitivity findings

• Liberalization assumptions
  Template difference changes estimates by 57%

• Demand elasticity for varieties
  Reducing estimates by 1/3 reduces gains by 10%

• Production heterogeneity parameter
  Reducing parameter by 1/3 reduces gains by 1/3

• Role of fixed cost barriers to trade
  Eliminating fixed cost reductions reduces gains by 41%