“Does Institutional Design Matter?

A Study of Trade Effectiveness and PTA Flexibility/Rigidity”

by

David H. Bearce, Cody D. Eldredge, and Brandy J. Jolliff

University of Colorado, Boulder
Research Question

General – Is institutional flexibility good or bad for institutional effectiveness?

Specific - Does PTA flexibility help or hinder international trade?
Arguments about Trade Agreement Flexibility (1)

Conventional Wisdom - greater flexibility is bad for trade effectiveness.

Helfer (2013, 186): “After a treaty enters into force..., escape clauses may have deleterious consequences for international cooperation. The most basic concern is that escape mechanisms authorize deviant behavior precisely when treaty compliance is needed most.”
Arguments about Trade Agreement Flexibility (2)

Flexibility Hypothesis- *some* flexibility allows for deeper agreements, thus improving trade effectiveness.

Rosendorff and Milner (2001, 835): the cost for temporary escape “must not be too high or it will eliminate any flexibility and make the [trading] system unstable; but it must also not be too low or it will render ‘cooperation’ ineffective.”
Arguments about Trade Agreement Flexibility (3)

Null Hypothesis- flexibility features have no real effect on trade agreement effectiveness

World Polity Theory (Meyer et al 1997) argues that PTAs and their design features are chosen primarily for symbolic reasons and not because they have any causal impact on trade.

Jo and Namgung (2012) provide evidence of design feature emulation among PTAs.

Gray and Slapin (2012) offer evidence to suggest that formal design features may not matter much for actual PTA effectiveness.
Test in a Gravity Model with Multilateral Trade Resistance

\[
\ln(\text{Imports})_{ijt} = B_0 + B_1 \ln(\text{ProductGDP})_{ijt} + B_2 \ln(\text{Distance})_{ij} + B_3 \text{GATT/WTO}_{ijt} \\
+ B_4 \text{PTA}_{ijt} + B_5 \text{PTA Design}_{ijt} + \text{Dyad}_{ij} + \text{Year}_t + \text{Importer-Year}_{it} + \text{Exporter-Year}_{jt} + \epsilon_{ijt}
\]

PTA Design variables include Depth, Width, DSM, Escape, Restrictions, and Restrictions^2.

PTA Escape (0-3) counts the number of escape options: SG, AD, and CVD.

PTA Restrictions (0-15) counts the number of restrictions related to the use of these escape options. Each option has a maximum of 5 restrictions.
Theoretical Expectations

Conventional Wisdom -- +  0  
Flexibility Hypothesis -+  + -

Trade Effectiveness

Flexibility/Rigidity

Conventional Wisdom

<table>
<thead>
<tr>
<th></th>
<th>PTA Escape</th>
<th>PTA Restrictions</th>
<th>PTA Restrictions $^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conventional Wisdom</td>
<td>- -</td>
<td>+</td>
<td>0</td>
</tr>
<tr>
<td>Flexibility Hypothesis</td>
<td>-</td>
<td>++</td>
<td>-</td>
</tr>
</tbody>
</table>

Since 1 escape option can have only 5 restrictions,

Conventional Wisdom:  5* | PTA Escape | > | PTA Restrictions |
Flexibility Hypothesis: 5* | PTA Escape | < | PTA Restrictions |
**Gravity Model Results**

<table>
<thead>
<tr>
<th></th>
<th>Full sample</th>
<th>Imports $200,000</th>
<th>Only PTA dyad/years</th>
<th>PTA as unit of analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTA Escape</td>
<td>-0.23**</td>
<td>-0.11*</td>
<td>-0.46**</td>
<td>-0.63**</td>
</tr>
<tr>
<td></td>
<td>(0.09)</td>
<td>(0.06)</td>
<td>(0.23)</td>
<td>(0.29)</td>
</tr>
<tr>
<td>PTA Restrictions</td>
<td>0.20***</td>
<td>0.13***</td>
<td>0.27***</td>
<td>0.38***</td>
</tr>
<tr>
<td></td>
<td>(0.04)</td>
<td>(0.03)</td>
<td>(0.10)</td>
<td>(0.10)</td>
</tr>
<tr>
<td>PTA Restrictions $^2$</td>
<td>-0.007***</td>
<td>-0.005***</td>
<td>-0.008**</td>
<td>-0.013***</td>
</tr>
<tr>
<td></td>
<td>(0.002)</td>
<td>(0.001)</td>
<td>(0.004)</td>
<td>(0.004)</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.85</td>
<td>0.87</td>
<td>0.90</td>
<td>0.17</td>
</tr>
<tr>
<td>$N$</td>
<td>993,489</td>
<td>720,927</td>
<td>76,837</td>
<td>301</td>
</tr>
</tbody>
</table>

Cell entries are OLS coefficient with robust standard errors clustered on the dyad. Dyad, Importer-Year and Exporter-Year fixed effects are included, but not reported. \( \ln(\text{ProductGDP}) \) drops with the inclusion of Importer-Year and Exporter-Year fixed effects. Distance drops with the inclusion of Dyad fixed effects. Year fixed effects drop with the inclusion of Importer-Year and Exporter-Year fixed effects. PTA Depth, PTA Width, PTA DSM included, but not reported. Statistical significance: *** p<.01, ** p<.05, *p<.10 (two-tailed).
Marginal Effect of PTA Restrictions

Marginal Effect on ln(Imports)

- PTA Escape = 1
- PTA Escape = 2
- PTA Escape = 3
Implications

Support for the flexibility hypothesis over the conventional wisdom.

But policymakers have under-selected for escape restrictions.