The scope and scale of the challenge

Price per tonne should be relatively close to world market prices!

For each trade flow, the exporter and importer should report similar value and weight!

For a sample of 2.2 million 6-digit trade flows in COMTRADE in 2011 and 2012

- Only 37.3% had records on weight and values from both trade partners,
- of these, less than half (17.5%) are consistent with each other!
- Good news, these 17.5% contain >85% of the value and volume in these trade flows.
BACI unfortunately is not the solution...

BACI reconciles flows with a consistent method. But it relies on strong assumptions about reporter reliability, which are difficult to justify empirically, politically not palatable, and do not always improve the quality of the data.

Where \( I = i_1, i_2, i_3, \ldots \) represents the set of all importing countries; \( E = e_1, e_2, e_3, \ldots \) represents the set of all exporting countries; \( i_x \) and \( e_y \) are specific importing and exporting countries; \( t \) denotes the year; and \( hs \) the six-digit HS code of a particular resource product.
New intuitive and robust method for reconciling trade flows

<table>
<thead>
<tr>
<th>Reporter 1 (exporter)</th>
<th>Value $x_1$</th>
<th>Weight $y_1$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reporter 2 (importer)</td>
<td>Value $x_2$</td>
<td></td>
</tr>
</tbody>
</table>

\[
\text{Average of Value } x_1 \text{ and Value } x_2; \text{ Weight } y_1
\]

- Works at the level of the individual trade flow rather than more aggregate levels.
- Allows to salvage large share of data while avoiding strong assumptions about reporter reliability!