Enhanced Supply Chain Security Between the United States and Taiwan

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About ITIF

- The world’s leading science and technology policy think tank.
- Supports policies driving global, innovation-based economic growth.
- Focuses on a host of issues at the intersection of technology innovation and public policy across several sectors:
  - Innovation and competitiveness
  - IT and data
  - Telecommunications
  - Trade and globalization
  - Life sciences, agricultural biotech, and energy
Examination of U.S. Trade with Taiwan (Korea and Mexico)

1. Trade in value added (TiVA).
2. Intra-industry trade in value added.
3. Composition of product trade: capital, intermediate, final goods.
4. Industry-level trade in value added across six key sub-industries.
5. Domestic value added as share of countries’ gross exports and imports.

Source: ITIF, “Global Trade Interdependence: U.S. Trade Linkages with Korea, Mexico, and Taiwan”
U.S.-Taiwan Trade

- Bilateral U.S.-Taiwan trade totaled $95.5 billion in 2018.
- America is Taiwan’s second-largest trading partner and largest source of FDI.
- Taiwan is America’s 11th-largest trading partner.
- U.S. trade with Taiwan supported 210,000 U.S. jobs in 2018.
# U.S. Trade With Taiwan, Adjusted by Value Added, 2014 ($M)

<table>
<thead>
<tr>
<th>Taiwan</th>
<th>Gross</th>
<th>Value Added</th>
<th>Intra-industry</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Exports</td>
<td>Imports</td>
<td>Balance</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$24,088</td>
<td>$40,584</td>
<td>-$16,496</td>
</tr>
<tr>
<td>Chemicals</td>
<td>$3,346</td>
<td>$1,302</td>
<td>$2,044</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>$420</td>
<td>$202</td>
<td>$218</td>
</tr>
<tr>
<td>Computers and Electronics</td>
<td>$3,213</td>
<td>$15,554</td>
<td>-$12,341</td>
</tr>
<tr>
<td>Machinery</td>
<td>$4,133</td>
<td>$3,628</td>
<td>$505</td>
</tr>
<tr>
<td>Automobiles</td>
<td>$154</td>
<td>$2,345</td>
<td>-$2,191</td>
</tr>
<tr>
<td>Other Transportation</td>
<td>$3,365</td>
<td>$1,333</td>
<td>$2,032</td>
</tr>
</tbody>
</table>

Source: ITIF, “Global Trade Interdependence: U.S. Trade Linkages with Korea, Mexico, and Taiwan”
Conclusions from U.S.-Taiwan Intra-Industry Trade Analysis

- ICT manufacturing is the most tightly-linked industry and constitutes the bulk of trade flows between U.S. and Taiwan.

- Taiwanese ICT manufacturers depend upon U.S. ICT goods inputs: The United States enjoys a $660M trade surplus in intra-industry ICT goods trade.
  - E.g., Taiwan consumes 30% of U.S. exports of semiconductor manufacturing equipment.

- U.S. has deeper inter-industry trade linkages with Taiwan than virtually any other East Asian trade partner.

Sources: ITIF, “Global Trade Interdependence: U.S. Trade Linkages with Korea, Mexico, and Taiwan”; Jinin Chen, “A New Dawn? The New Realities of U.S.-Taiwan Economic and Trade Relations”
“U.S. data on trade with Taiwan may understate the importance of Taiwan to the U.S. economy because of the role of global value chains.” – CRS

Taiwan’s role as key provider of competitively priced technologies and components indispensable to the competitive position of U.S. high-tech industries.

Source: Congressional Research Service, “U.S.-Taiwan Trade Relations”
U.S. Semiconductor Industry Empowered by Taiwanese Partners

- U.S. ICT companies account for 65% of global demand for fabless semiconductor manufacturing.

- Taiwanese companies account for 73% of global foundry-based semi. revenues.

- The partnership has enabled continued U.S. leadership in the semiconductor industry.

Taiwan The World’s Second-Most GVC-Dependent Nation

Countries’ Global Value Chain Participation Rate, as Share of Total Exports

Source: World Trade Organization
Yet Has Lost Share of Global Income From Mfg. GVCs

<table>
<thead>
<tr>
<th>Country</th>
<th>Real Manufacturers’ GVC Income</th>
<th>Share of World Manufacturers’ GVC Income</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1995</td>
<td>2011</td>
</tr>
<tr>
<td></td>
<td>1995</td>
<td>2011</td>
</tr>
<tr>
<td>China</td>
<td>280,325</td>
<td>1,626,578</td>
</tr>
<tr>
<td>India</td>
<td>124,482</td>
<td>336,877</td>
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<tr>
<td>Indonesia</td>
<td>84,716</td>
<td>168,601</td>
</tr>
<tr>
<td>Japan</td>
<td>1,159,456</td>
<td>734,694</td>
</tr>
<tr>
<td>Korea</td>
<td>156,577</td>
<td>214,578</td>
</tr>
<tr>
<td>Taiwan</td>
<td>88,338</td>
<td>85,086</td>
</tr>
<tr>
<td>Germany</td>
<td>663,129</td>
<td>682,369</td>
</tr>
<tr>
<td>United States</td>
<td>1,325,204</td>
<td>1,456,101</td>
</tr>
</tbody>
</table>

Source: Kiyota, Oikawa, and Yoshioka, “The Global Value Chain and the Competitiveness of Asian Countries”
Observations and Insights

1. U.S.-Taiwan trade relationship in advanced-technology industries is symbiotic and mutually beneficial.

2. U.S. security would benefit from integrating Taiwan and its enterprises more closely with the U.S. technology ecosystem.

3. Shifting manufacturing activity out of China matters, even in cases when it doesn’t come all the way back to the United States.

4. U.S. can learn from Taiwanese manufacturing reshoring initiatives.
Policy Recommendations

1. Pursue a U.S.-Taiwan Bilateral Trade Agreement.
2. Join the CPTPP, and support Taiwan’s participation therein.
3. Facilitate Taiwanese participation in international forums.
4. Establish an innovation experts working group.
5. Continue to confront Chinese innovation mercantilism.
Thank You!

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