Protectionism in international production networks

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Introduction

- Political events (Brexit, US elections) have brought protectionism to the fore, also endangering Global Value Chains (GVCs).
  - is this of policy interest to central banks?
  - how large are direct impact and spillovers?
- Will draw on:
  - BIS, 87th Annual Report, 2016/17; Auer, Borio and Filardo “The globalisation of inflation: the growing importance of global value chains” BIS WP 602; Auer, Levchenko, and Sauré “International inflation spillovers through input linkages” BIS WP No 623
  - a quantification based ongoing work
ICT advances and opening of EMEs led to growing GVCs

Global imports of intermediate and final goods and services

Geography of GVCs

<table>
<thead>
<tr>
<th>Percentage of GDP</th>
<th>Share of intermediate imports by origin, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>74   79   84   89   94   99   04   09   14</td>
<td>1995</td>
</tr>
<tr>
<td>5.0  7.5  10.0  12.5  15.0  17.5</td>
<td>AEAs</td>
</tr>
<tr>
<td>Intermediate goods</td>
<td>EMEs ex emerging Asia and CN</td>
</tr>
<tr>
<td>Final goods</td>
<td>Emerging Asia ex CN</td>
</tr>
<tr>
<td></td>
<td>CN</td>
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</tbody>
</table>
Input use has increased tremendously

Point in case is German car industry:
International input linkages created inflation spillovers...

Elasticity of local PPI inflation wrt global PPI inflation (Auer, Levchenko, and Saure (2017))
….and led to “globalised” inflation

To what extent does global slack affect domestic inflation in a Philip’s curve estimation? (Auer, Borio, and Filardo (2017))
To exemplify: a 10% import tariff on Mexican and Chinese imports would affect US industry

Cost shock to US industry of a tariff\(^1\)

Decline in sectoral US labour costs required to compensate for higher input prices\(^2\)

see BIS 87\(^{th}\) annual report
Since foreign value is embedded in Chinese and Mexican exports...

Origin of value added embodied in exports from

- **Mexico**
- **China**

see BIS 87th annual report
...bilateral import tariffs would shift the global geography of trade...

Quantification of 35% US import tariff on Mexican goods following Deckel et al. (2007), from WIOD/Timmer et al. (2016)
...also affecting third-country trade
A tariff would have heterogeneous consequences across sectors...

...but much less so across skill types.

<table>
<thead>
<tr>
<th></th>
<th>High Skill</th>
<th>Mid Skill</th>
<th>Low Skill</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEX</td>
<td>-1.926%</td>
<td>-4.110%</td>
<td>-2.866%</td>
</tr>
<tr>
<td>USA</td>
<td>-0.103%</td>
<td>-0.130%</td>
<td>-0.144%</td>
</tr>
<tr>
<td>CAN</td>
<td>0.097%</td>
<td>0.080%</td>
<td>-0.010%</td>
</tr>
</tbody>
</table>

Example II: what could be impact of Brexit across countries...

From Dhingra et al. (2017)
...and sectors?
Conclusions

- **GVCs:**
  - have synchronized inflation
  - contributed to “globalisation” of inflation

- **Protectionism:**
  - would spill beyond directly affected partners via the global production network
  - could cause global inflation that has gone missing (timing?)
  - would have distributional effects across sectors, but not so much across skill types