Service-export-led development & the future of trade

RICHARD BALDWIN
PROFESSOR OF INTERNATIONAL ECONOMICS

World Bank, Washington, 1 Feb 2023
Outline of argument

1. The old manufacturing-export-led pathway is closing or closed
2. The Service-export pathway is open, and widening fast
3. Need for new theory and pragmatic empirical techniques
Old manufacturing pathway is closing or already closed
Offshoring-expansion phase has ended

- 2\textsuperscript{nd} Unbundling
- Manuf offshoring accelerated industrialisation of handful of EMs
- But transition is almost finished
Supply chains: shorter domestically & internationally

- Ratio of value of world intermediates to world GDP in manufactures falling since 2013
- Evidence of unwinding supply chains
  - Domestically & internationally
World goods trade to GDP peaked in 2008

World exports & imports of goods, 1960-2020 (% of world GDP)

1960: 19%
1993: 29%
2008: 50%
2020: 42%

NB: World imports of goods equal world exports of goods
About 60% of the drop in the trade ratio was due to mining and fuels,

Rest by manufactures
Why goods trade ratio falling since 2008? (before Trump/Brexit, Geoeconomics, supply chain issues)

Technology: Automation lowers labour cost-share and thus reduces incentives to produce abroad

NB: Comparative advantage can’t come from freely trade inputs
Bold conjecture #1

- Manufactured goods are becoming nontraded & jobless
The Service-export pathway is open, and widening fast
Tele-migration

Definition:
• People sitting in one nation & working in offices in another
• Cross-border “telework”

Driving force:
• Digitech makes it possible
• Enormous wages gaps make it profitable
Modes of telemigration
- Freelancing
- BPO/KPO
- Call centres
- Shared Service Centres
FACT: Intermediate inputs are more important in services imports than manufactures imports
FACT: Service intermediates are 3x more important than manufacturing intermediates in overall economy

<table>
<thead>
<tr>
<th>Column sector's inputs into row sector (gross output) 2018</th>
<th>Service intermediate inputs</th>
<th>Manufactures intermediate inputs</th>
<th>Sector share of total gross output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service sector</td>
<td>32%</td>
<td>5%</td>
<td>68%</td>
</tr>
<tr>
<td>Manufacturing sector</td>
<td>24%</td>
<td>25%</td>
<td>26%</td>
</tr>
<tr>
<td>Total economy</td>
<td>30%</td>
<td>11%</td>
<td>100%</td>
</tr>
</tbody>
</table>
FACT: Trade in ‘other commercial services’ (OCS) has growth twice as fast as goods trade since 1990, now 20% of all international commerce.
#2: 4 facts and a conclusion

1. Barriers to services trade are much higher than barriers to goods trade
2. Most barriers to trade in intermediate services are technology-linked, not policy linked
3. Digitech is lowering barriers to intermediate services at an explosive pace (+ Covid forced adjustment)
4. Demand is huge in rich nations; Capacity is huge in emerging markets

ERGO: Intermediate services trade will grow much faster than goods trade for foreseeable future
Argument:

Baldwin & Forslid (2019), “Globotics and development”
Bold conjecture #2

Trade in intermediate services will dominate future trade
Service-led development
Service-led development is happening

**FIGURE 1.1** Much of the Decline in Agriculture’s Share of Employment and GDP in LMICs since the 1990s Has Been Offset by Services

a. Sectoral shares of employment in LMICs, 1991–2018

**FIGURE 1.4** Labor Productivity Growth in Services Has Matched That in Industry across LMICs in Many Regions since the 1990s, Typically Exceeding That of HICs

Growth in value added per worker in LMICs, by broad sector and relative to high-income countries, 1995–2018

Source: Calculations based on World Development Indicators database.

Note: Value-added (VA) data are in constant prices. “Low- and middle-income countries” (LMICs), by World Bank income group classifications, had 1994 gross national income (GNI) at less than US$1,075. “High-income countries” (HICs) had GNI exceeding US$12,955 in 1994. Data for the “industry” sector include not only manufacturing but also mining, utilities, and construction. CAGR = compound annual growth rate.
Policy conjectures
Geography is too hard to overcome in manufacturing

- Factory N.Amer. (19%)
- Factory Europe (20%)
- Factory N.E. Asia (38%)
NB: Services are easier

1. Lower scale economies
2. Capacity is less of an issue
3. Geographic distance matters less
4. Big demand in N, big supply in S
1

The Emerging Market miracle will continue and spread but this time based on services
Same comparative advantage: telemigration allows Emerging Markets to export their advantage directly.
Conjecture: Time zones will matter more
Different structural transformation

“Service-led” development, not “manufacturing-led” development
- Think India, not China
- Think “Service Value Chains”, not GVCs
New Development Strategies Needed

Think cities, services, and training

Not factories, industrial equipment, and technology
New development theory needed

Probably will be an extension of urban growth theory, like Hoyt model
New diagnostics needed

Service wage differences in teleworkable sectors adjusted by productivity differences

(Productivity = service GDP per worker???)
Telemigration will foster a new backlash against globalisation in advanced economies
Thanks for listening!
Slides for Q&A
‘globotics quadrant’

**Susceptibility by occupation**

x-axis = automation

y-axis = globalisation

- **Offshorability**
  - General clerical workers, 6.3m,
  - Accountancy clerks, 5.2
  - Carrying, cleaning, packaging, and related workers, 7.6m
  - Food and drink cooking, staff serving customers, 10.6m

- **Automatability**
  - Teachers, 5.4
  - Public health nurses, midwives, and nurses, 6.6m
  - Sales workers, 8m
  - Workers in Family Life Support and Care Service, 7.2m
  - Manufacturing process workers, 8.5m
  - Workers in Food and Drink, 10.6m

Million jobs per quadrant: NW = 57, NE = 11, SW = 16, SE = 20
Fact: Service trade growing faster than goods

“Telemigration services” growing 2-3 times faster
Commodity super cycle & manuf & mining

- Prices of all 3 categories of goods fell from 2010, or so
- Until recently

Note: Import unit value chained indices - annual, stats.wto.org , 2015 = 100
2008 is a false peak: National ratios peaked before or after or not

- China peaked 2006
- US peaked 2011
- Japan peaked 2014
- EU has stagnated not peaked (mixed trends)
China is converging to openness of a normal mega-economy

- Mega economies are rather closed (trade/GDP)
- China is normalising
China’s very asymmetric engagement with global value chains

- What is unusual is China’s asymmetric engagement in Global Supply Chains
- Growing on sales side
- Shrinking on sourcing side

Source: Baldwin, Freeman, Theodorakopoulos (2022).
Getting real
Goods trade isn’t falling; GDP rising faster
Wage gap: How competitive would Colombian workers be in US?

<table>
<thead>
<tr>
<th>ISCO Title</th>
<th>Wage ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers</td>
<td>14.6</td>
</tr>
<tr>
<td>Professionals</td>
<td>9.4</td>
</tr>
<tr>
<td>Technicians and associate professionals</td>
<td>13.9</td>
</tr>
<tr>
<td>Clerks</td>
<td>11.8</td>
</tr>
<tr>
<td>Service workers and shop and market sales workers</td>
<td>12.9</td>
</tr>
<tr>
<td>Craft and related trades workers</td>
<td>12.6</td>
</tr>
<tr>
<td>Primary industries</td>
<td>11.6</td>
</tr>
<tr>
<td><strong>Weighted average (ISCO 1D level)</strong></td>
<td><strong>11.8</strong></td>
</tr>
<tr>
<td><strong>Median</strong></td>
<td><strong>17.6</strong></td>
</tr>
</tbody>
</table>

Source: Baldwin, Cardenas, and Fernandez (2021)
How digitech makes it possible:

- Domestic remote work
- Freelancing platforms
- Advanced telecomms
- Machine translation
- Unbundles ‘service value chain’ (next)
Point #2: 4 facts and a conclusion

1. Barriers to services trade are much higher than barriers to goods trade

2. Most barriers to trade in intermediate services are technology-linked, not policy linked

3. Digitech is lowering barriers to intermediate services at an explosive pace (+ Covid forced adjustment)

4. Demand is huge in rich nations; Capacity is huge in emerging markets

ERGO: Intermediate services trade will grow much faster than goods trade for foreseeable future
What are intermediate services?

• All the service tasks done in service sector, manufacturing sector, and primary sector that are not sold directly to customers.

• For example:

tasks done by occupations like bookkeepers, forensic accountants, CV screeners, administrative assistants, online client help staff, graphic designers, copyeditors, personal assistants, corporate travel agents, software engineers, lawyers checking contracts, financial analysts writing reports, etc.
Traditional versus digitally enabled services

World services trade by major category (% of GDP)
1980-2020

- Other commerce services
- Transports services
- Travel services
Every sector uses service intermediates.
Value of world goods trade by sector

World goods trade by sector, 1980-2021 ($ billion)
Breaking down the commodity super cycle into prices & volumes

- Trade in mining goods & fuels (value, $ billions)
- Trade in mining goods & fuels (price index, 2015=100)
- Trade in mining goods & fuels (volume)

Note: Export-Import values; index 2015 = 100 deflated by Merchandise export unit value fixed-base indices, 2015 = 100.