

# Technology Transfer through Trade

Towards a Coherent Multilateral Framework

Miho Shirotori

OIC, Division of International Trade & Commodities

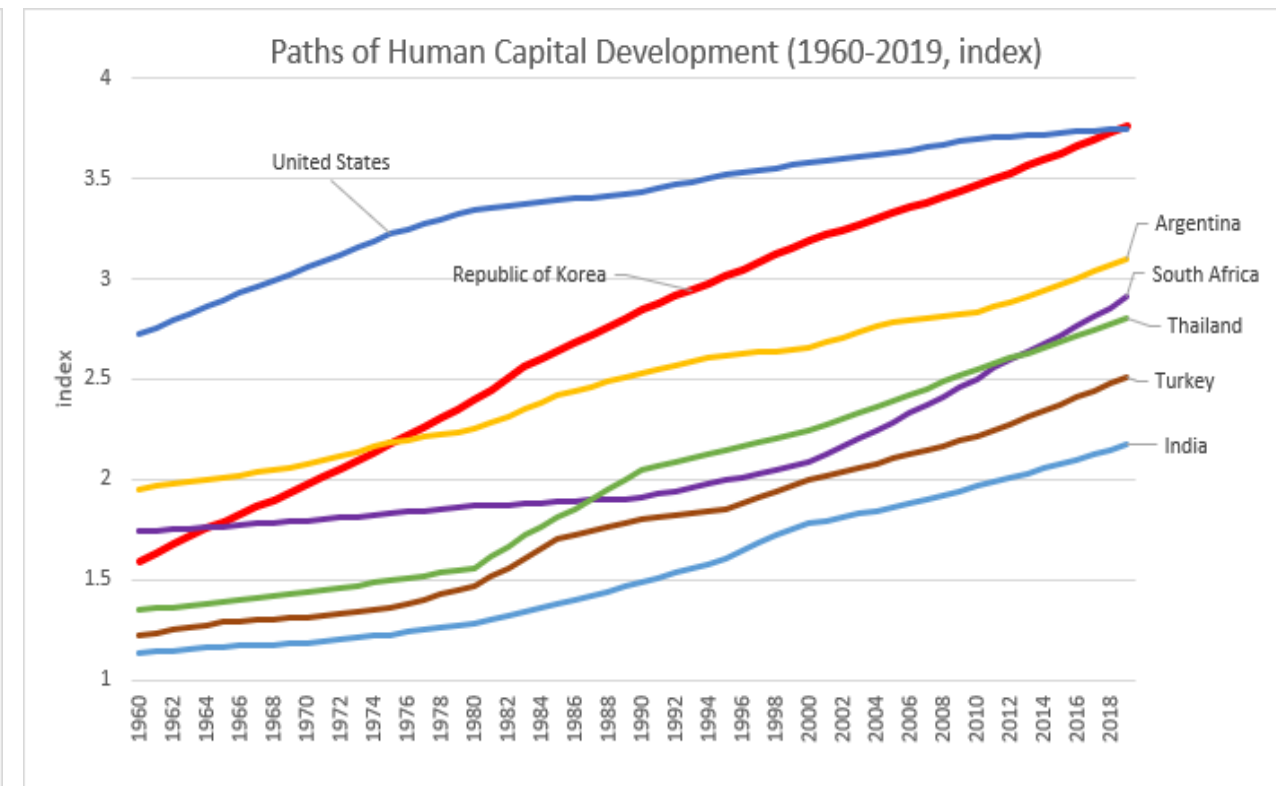
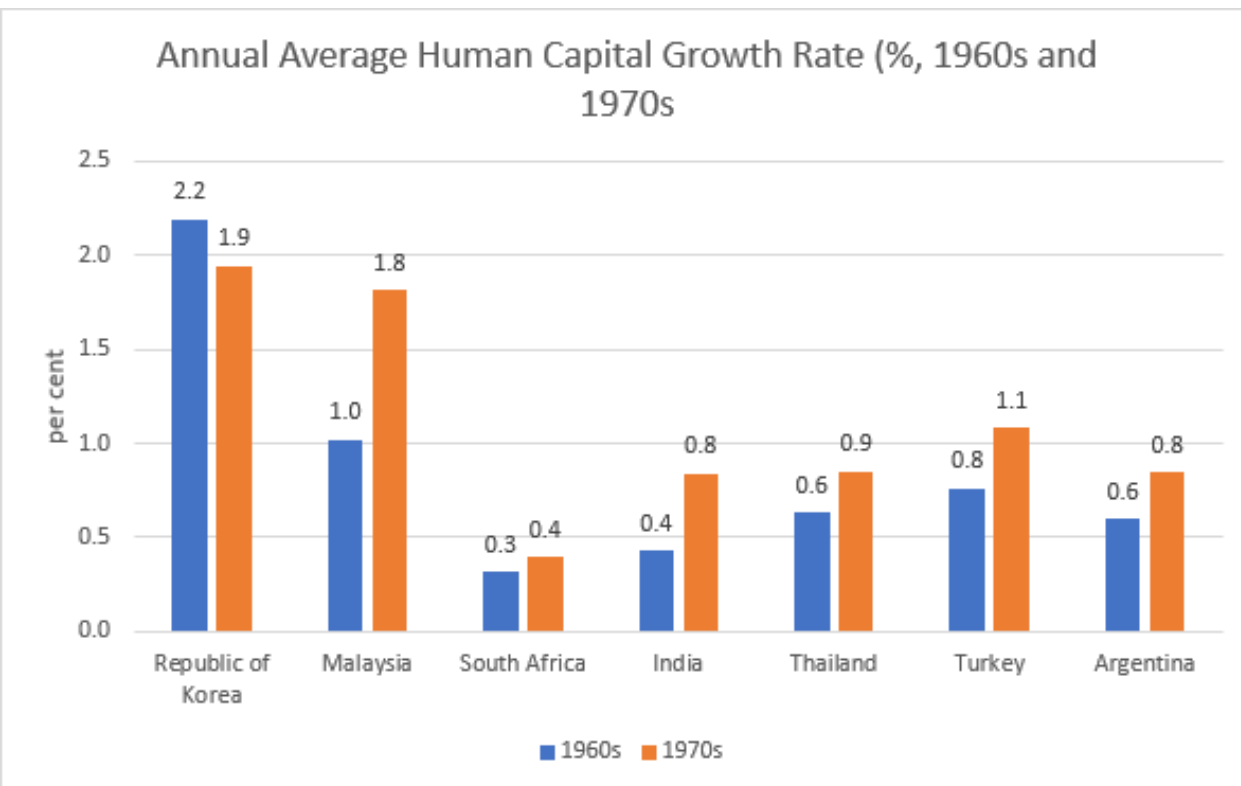
10 February 2023

# I. Trade = a vehicle to technology transfer

<b>1</b>	<b>Trade facilitates...</b>	<ul style="list-style-type: none"><li>• Reverse engineering (or informal channel of tech transfer)</li><li>• Research collaboration, licensing agreements, joint ventures</li></ul>
<b>2</b>	<b>Recent examples</b>	<ul style="list-style-type: none"><li>• Republic of Korea since 1960s</li><li>• China since 1990s</li></ul>
<b>3</b>	<b>Key requirements</b>	<ul style="list-style-type: none"><li>• Technology absorptive capacity and an adequate market size in the tech-receiving country</li></ul>
<b>4</b>	<b>Limitation</b>	<ul style="list-style-type: none"><li>• Market mechanism allows technology transfer only when business gains are clear (thus limited in sectors linked to global commons)</li></ul>

# Technology absorptive capacity

## Human Capital: Case of Republic of Korea



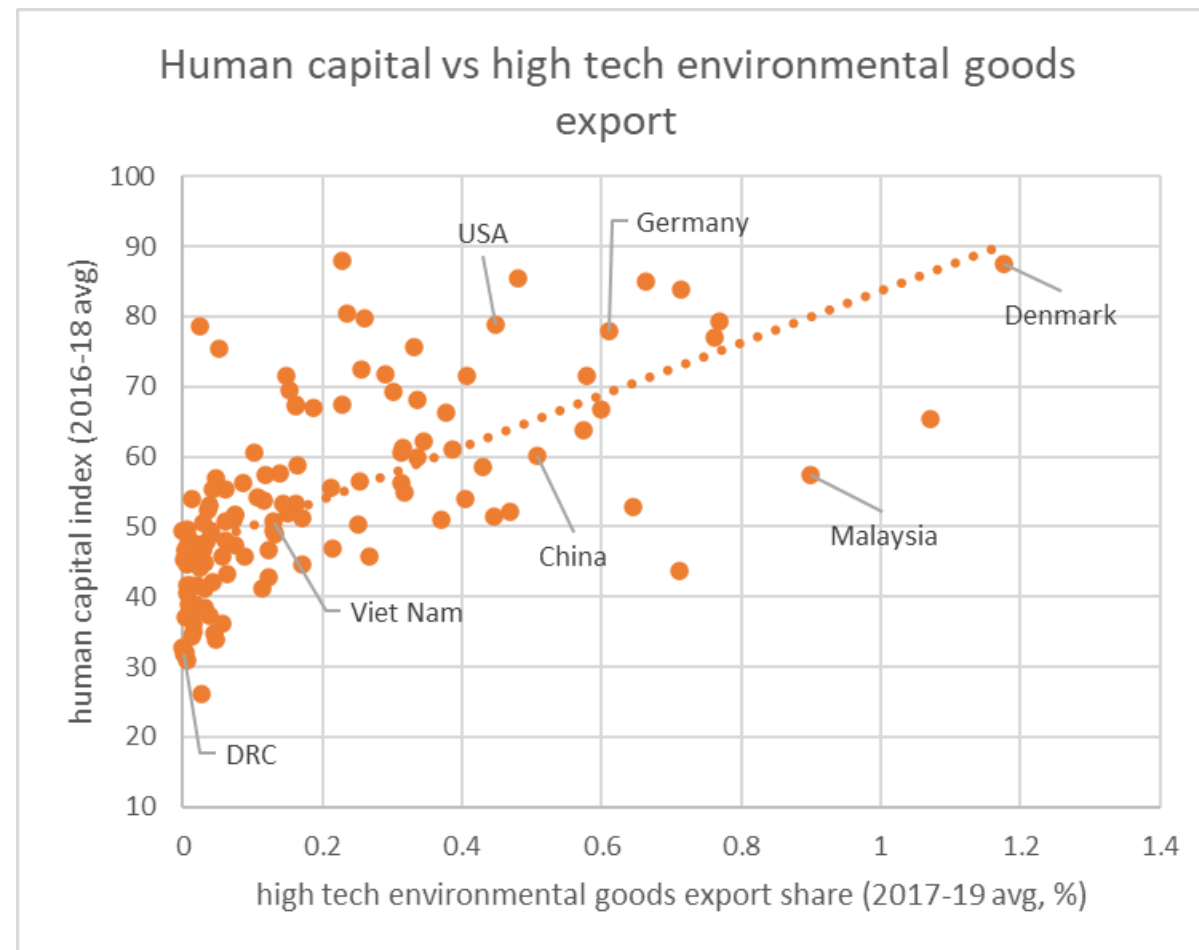
Source: UNCTAD calculations based on Penn World Tables version 10.01.

Source: Penn World Tables version 10.01

# Technology absorptive capacity

## Case of environmental goods exports

- Human capital = a determinant of a country's technology absorptive capacity
- High correlation between a country's human capital and high-tech environmental goods exports
- Policy sequence → Support technology-absorptive capacities in developing countries for EST transfer



Source: UNCTADStat

## II. Multilateral coherence: Trade policy to implement multilateral TT initiatives

Case: Transfer of environmentally-sound technology (EST)

**“Matching multilateral aspirations with concrete actions”**

### Multilateral Initiatives for TT

- The Paris Agreement (Art.10 & Art.11)
- The UNFCCC (Art.4)
- The UN Technology Bank for LDCs

### Trade Policy as a Means of Implementation

- Promote access to EST-related inputs & services
- Create incentives to joint ventures through market pooling
- Reduce cost through building/sharing necessary infrastructures and capita

### III. Framing trade policy for EST transfer

<b>National Policy</b>	<ul style="list-style-type: none"><li>• Reduce tariffs and NTMs on EST-related goods and services</li><li>• Build technology absorptive capacity</li></ul>
<b>N-S Trade Arrangements</b>	<ul style="list-style-type: none"><li>• “Sustainable Development Clause” to cover EST transfer</li><li>• Modernize unilateral trade preference programmes (e.g. GSP)</li></ul>
<b>S-S Trade cooperation</b>	<ul style="list-style-type: none"><li>• RTAs to enlarge market and attract EST-transferring joint ventures</li><li>• S-S cooperation on trade in environmental goods &amp; services and EST building (e.g. GSTP)</li></ul>
<b>Multilateral trade agreements</b>	<ul style="list-style-type: none"><li>• TRIPs and possible “Climate Waiver”</li></ul>

# Way forward

**Let us continue with open dialogues:**

“Why trade can be a means of implementation of  
multilateral TT initiatives

and

How do we improve its catalytic power?”

