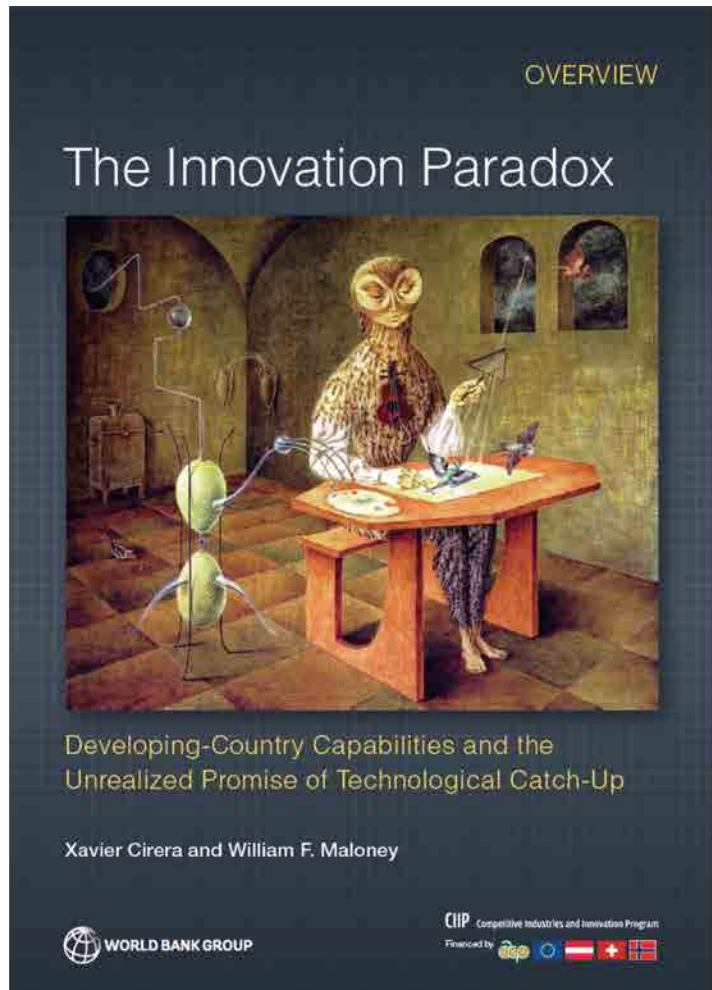


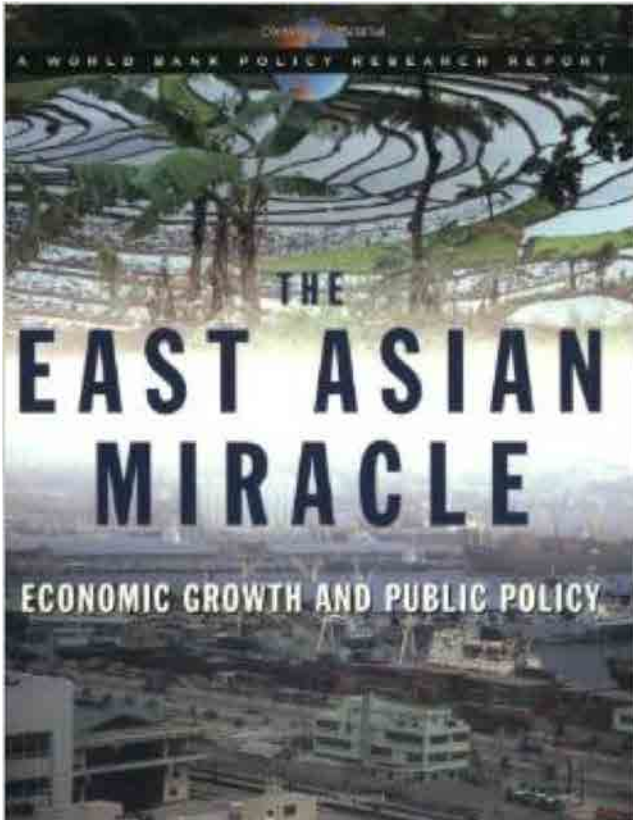
Comments on World Bank. 2017.

The Innovation Paradox.



1. This report is highly recommendable to read.
2. Argument is based on rich empirical evidence recently studied.
3. Pointing out the importance of:
 - A) Management skills and organizational practices;
 - B) Potential gains from bringing existing technologies; and
 - C) Proposes "Capabilities escalator", under the weak government capacity.

1. Does this report imply the change of WB (World Bank) policy and operation on industrial policy?



- ① During the 1980s (at the era of SAP (Structural Adjustment Program), the WB had shied away from the industrial development programs.
- ② To be more precise, the WB kept distance from industrial policy. In 1992, there was World Bank-Japan debate on industrial Policy.
- ③ This report discussed the role of government (industrial policy) in very nuanced manner.

Some excerpts from the report.

- “Although most of the debate around the East Asian “miracle” centered on the role of openness, which has an important impact on incentives to engage in innovation, a critical element explaining the growth success of these countries was the ability of firms to learn and accumulate capabilities over time, and thus catch up technologically (p84)”.
- “.... for developing countries, the greater magnitude of the market failures to be resolved—for instance, in upgrading firm capabilities—and the multiplicity of missing complementary factors and institutions increase the complexity of innovation policy, at the same time that government capabilities to manage it are weaker (p8)”.

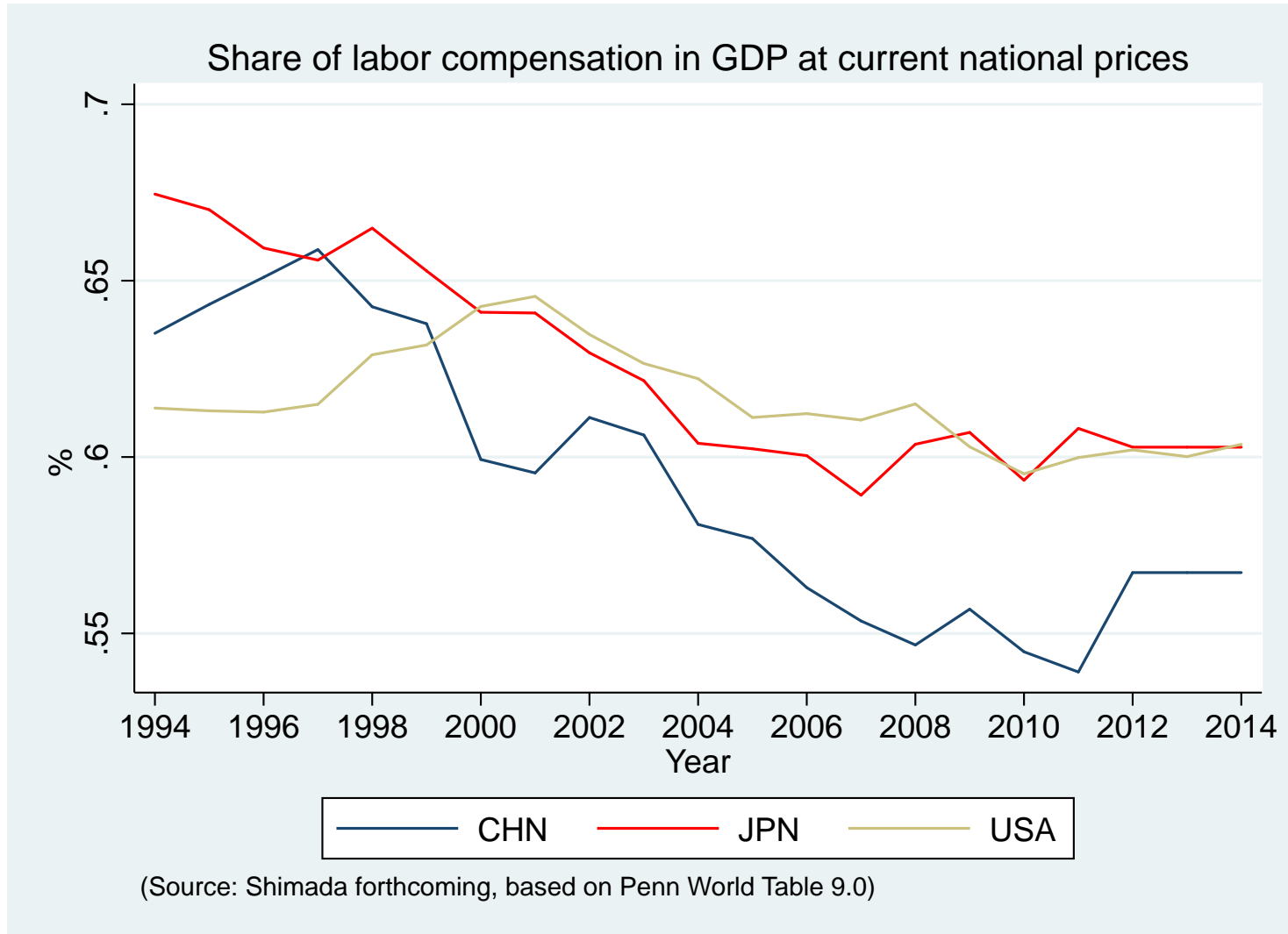
2. Schumpeter (1942) was right. But, is he still right, under the intellectual property right regime (WTO/ TRIPS) ?

	No Cross-Firm Spillovers	Full Cross-Firm Spillovers
Perfect Competition	× (not possible)	Underinvestment in learning
Monopolistic Competition	Restricted output	Both market distortions

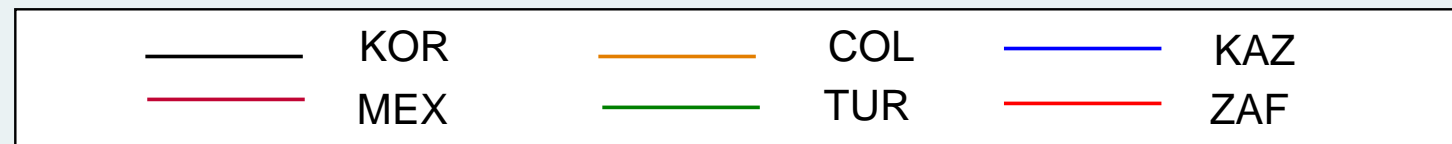
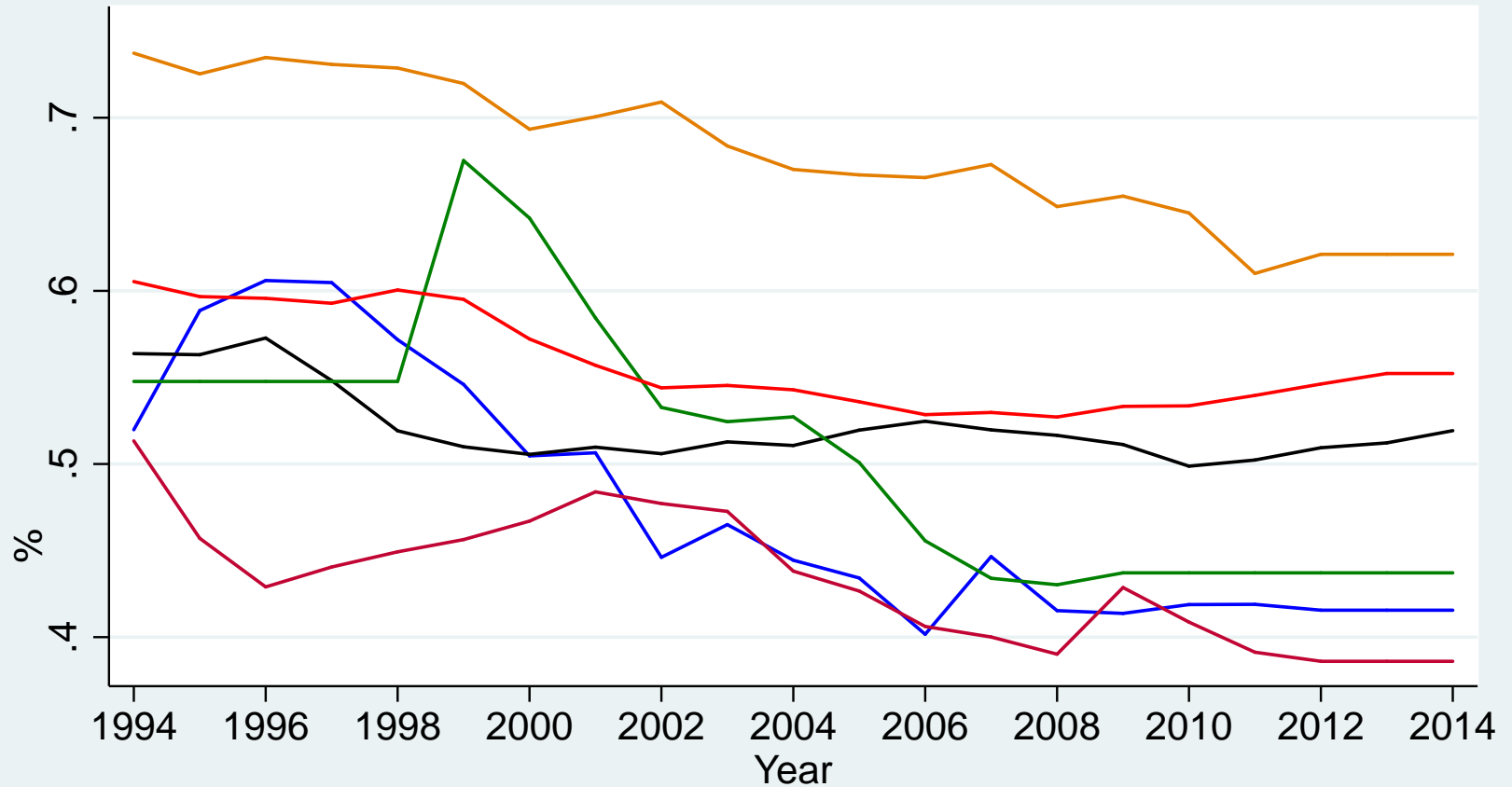
(Source: Stiglitz and Greenwald, 2015)

- Patent
- Anticompetitive practice: Microsoft's free "Internet Explore" vs "Netscape"
- "Paradox" or "Inevitable"?

3. What are the distributional impacts of innovation, which is mostly labor saving?

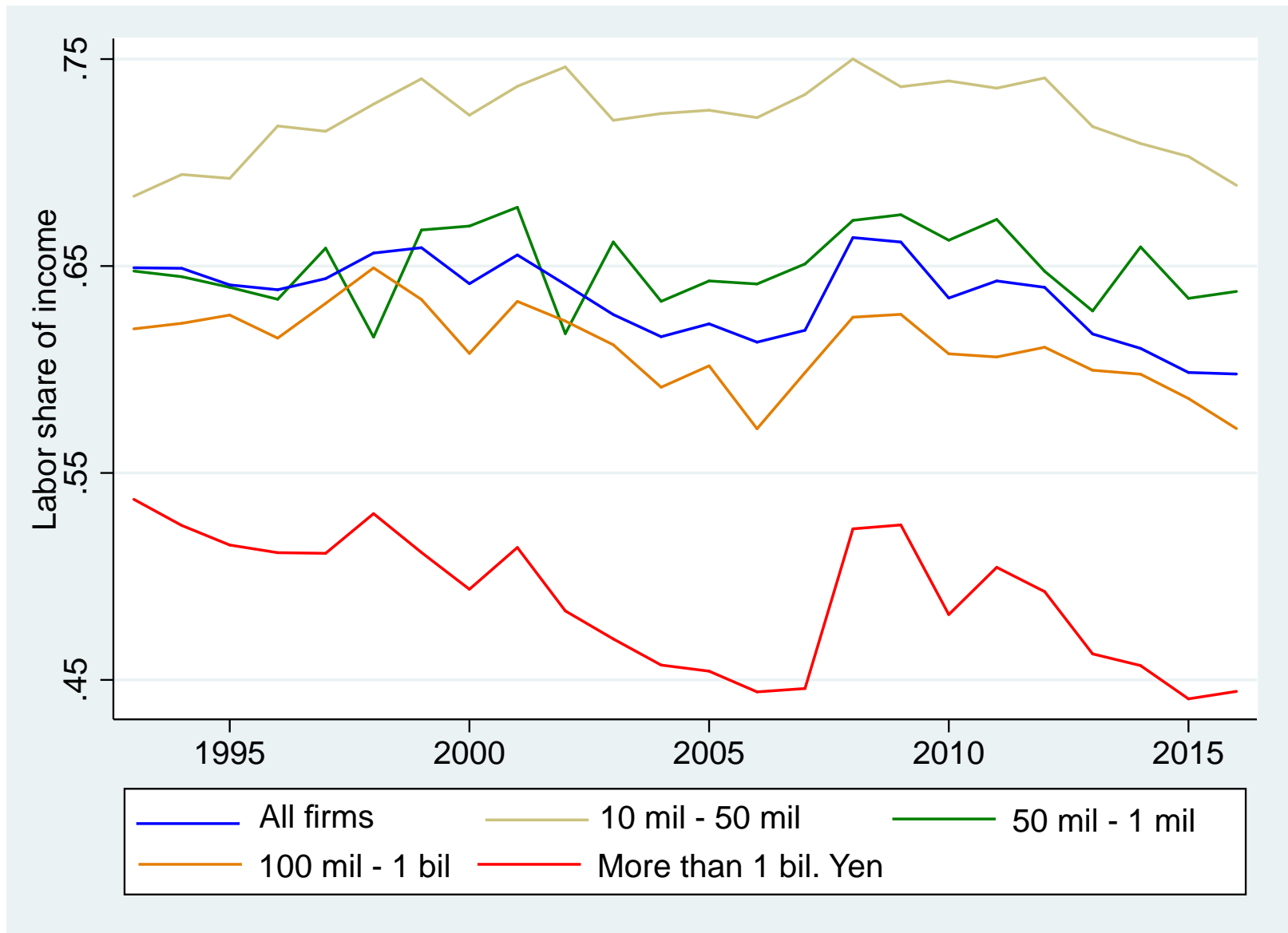


Share of labor compensation in GDP at current national prices



(Source: Shimada forthcoming, based on Penn World Table 9.0)

Labor share of income by firm size in Japan



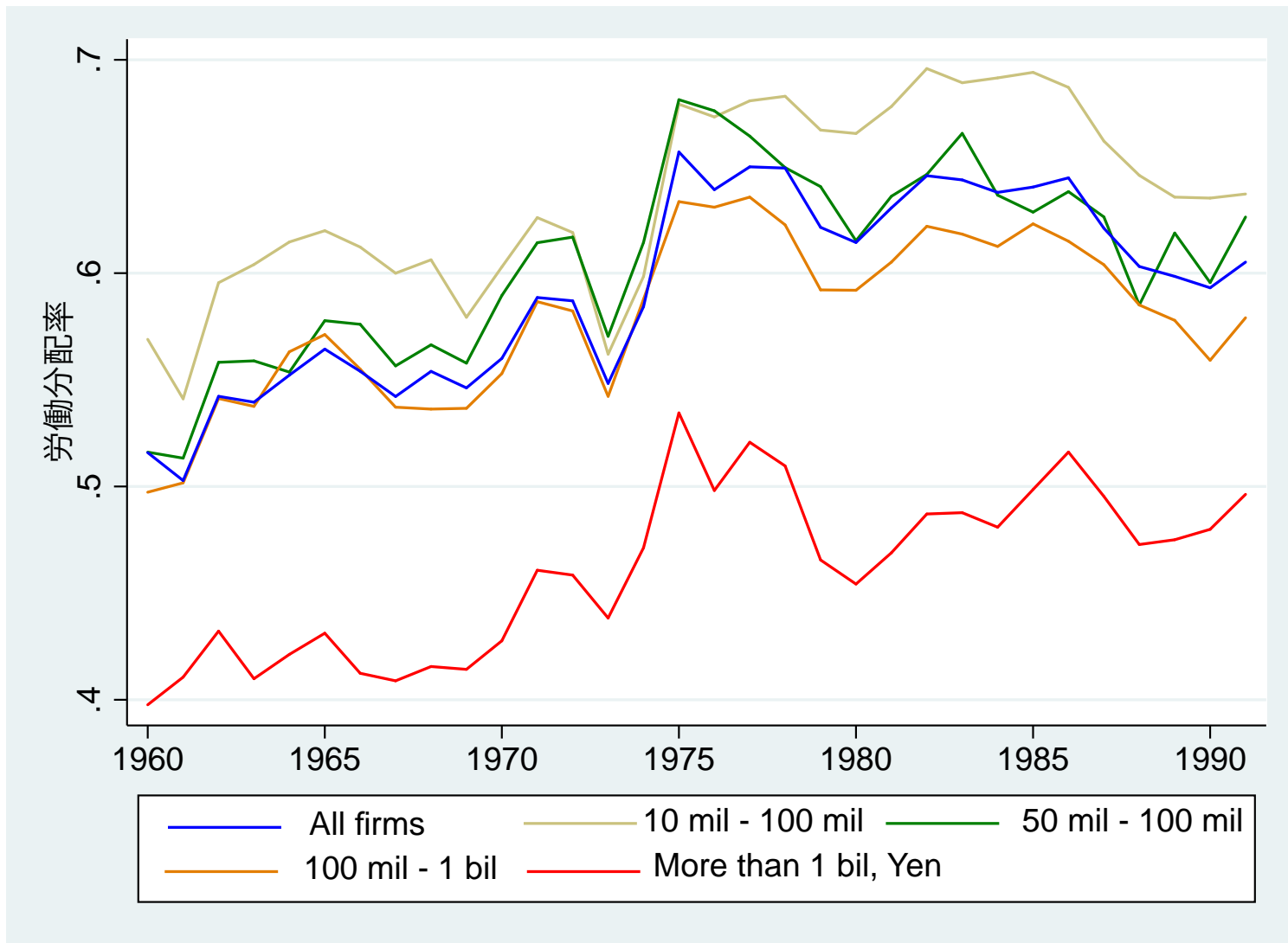
(Source: Shimada, forthcoming)

Go Shimada

What innovation? - **Technological Innovation, Production Innovation and/or Social Innovation**

- 1955-1961: Aid from the US : 3,986 people trained in the US.
- Three guiding principles of Japan's productivity movement
 1. **Expansion of employment**
 2. **Cooperation between labor and management**
 3. **Fair distribution of the fruits of productivity**
- Shimada, Go. 2017. Inside the Black Box of Japan's Institution for Industrial Policy – An Institutional Analysis of Development Bank, Private Sector and Labour. In Akbar Noman and Joseph Stiglitz, eds. *Efficiency, Finance and Varieties of Industrial Policy*. New York: Columbia University Press.

Share of labor compensation in GDP **increased** during 1960 to 90.



Firms don't know what they don't know.

Further, managers don't know what they don't know

	Managers		Employees	
	Kernel Matching	Nearest-neighbor	Kernel Matching	Nearest-neighbor
Employees' attitudes towards work (Five scale rating)	0.306 *** (3.078)	0.388 ** [0.002]	0.294 *** (3.062)	0.215 ** [0.071]
Employees suggest improvements (Three scale rating)	0.233 *** (2.960)	0.169 ** [0.075]	0.125 (1.635)	0.301 [0.781]
Firms take measures for prevention of occupational accidents? (Three scale rating)	0.274 *** (3.803)	0.233 *** [0.041]	0.163 (1.200)	0.122 [1.39]
Suggestions contribute to increase profit. (2 =yes, 1 = no)	0.122 ** (2.023)	0.105 [0.163]	- -	- -
	Treat=86, Control=140 N=231~237		Treat=83, Control=173 N=205~259	

* $p < 0.10$ ** $p < 0.05$ *** $p < 0.01$

Go Shimada

(Source: Shimada and Sonobe, *forthcoming*) ¹⁰