

# International Economics

- » In 1953, Leontief tried to compare the amount of capital and labor that was “incorporated” into the USA’s imports and exports.
- » He used 1947 data.
- » He accounted for the factor content used in intermediate goods also.
- » For imports, he assumed the same production technologies as that of the USA.

Testing the H-O model



## Leontief's paradox

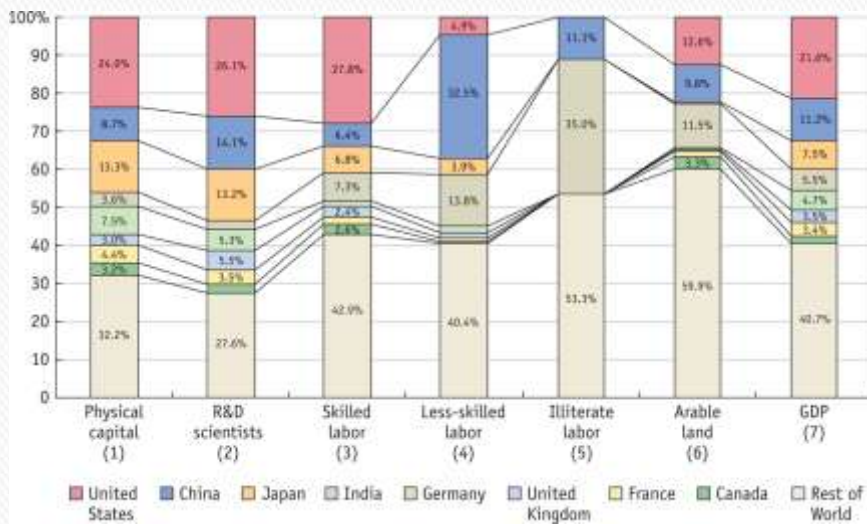
	Exports	Imports
Capital (\$ millions)	2.55	3.1
Labor (person-years)	182	170
Capital/labor (\$/person)	14,000	18,200

Testing the H-O model



- » Imported goods are more capital-intensive than exported goods!
- » Possible explanations:
  1. Technologies may be different.
  2. Land should be accounted for as an additional factor of production which may be relatively abundant in the USA.
  3. Also human capital.
  4. 1947 may not be representative.
  5. Trade may not be entirely free.

Leontief's paradox >



## Factor endowments



### Physical capital

- » The USA has 24% of the world's physical capital and is responsible for 21.6% of world output.
  - > By this measure, the USA is considered physical abundant compared with the ROW.
  - > It is also considered land scarce.
- » Like the USA, China is land scarce. Unlike the USA, China is capital scarce and abundant in less-skilled and illiterate labor.
- » Is China really land and R&D abundant?
  - > Adjustment for productivity.

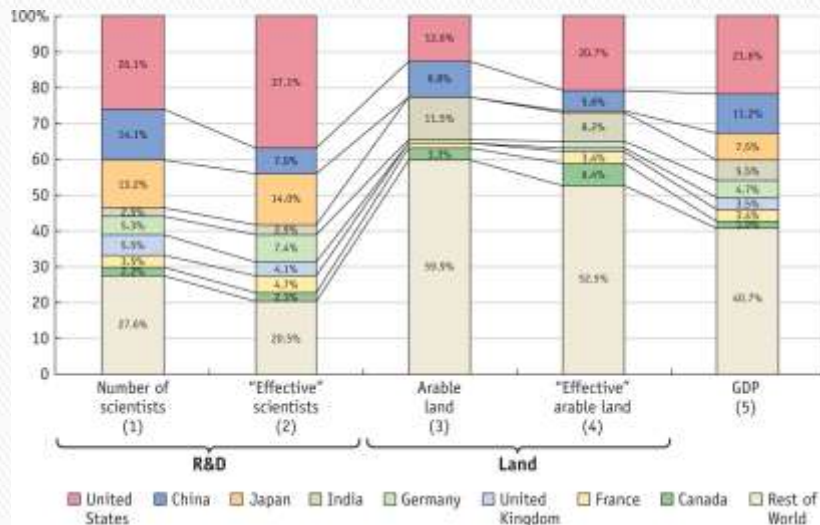
## Factor endowments



### “Effective” factor abundance

- » F&T argue that USA R&D scientists are more productive because they have better equipment to work with, ie R&D spending per scientist. (see fig next slide)
- » But is this not what “other factor abundance” is about?
- » In my opinion, only differences in productivity that result from “efficiency” or technology should be accounted for, ie TFP.
- » In the case of “effective land abundance”, they do report TFP measures. (see note 4 in fig 4-7)

On productivity >



On productivity >

- » The USA's effective land abundance is about neutral wrt the ROW.
- » According to Table 4-2, this corresponds well to the fluctuations between + and – re food net exports.
- » NB agricultural exports includes other goods such as cotton.

## On productivity >

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<b>U.S. food trade, 2000–2009</b> (billions of U.S. dollars)										
Exports	41.4	42.5	43.2	48.3	50.0	51.7	57.8	75.4	97.4	82.8
Imports	41.4	42.0	44.7	50.1	55.7	61.6	68.9	74.0	81.3	73.8
Net exports	0.0	0.5	-1.5	-1.8	-5.7	-9.9	-11.1	1.4	16.1	9.0
<b>U.S. agricultural trade, 2000–2009</b> (billions of U.S. dollars)										
Exports	51.3	53.7	53.1	59.4	61.4	63.2	70.9	90.0	115.3	98.6
Imports	39.2	39.5	42.0	47.5	54.2	59.5	65.5	72.1	80.7	71.9
Net exports	12.1	14.1	11.1	11.9	-7.2	3.7	5.5	17.9	34.6	26.7

## On productivity >