The Proximate Sources of Divergence

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Meeting 29
Econ N171 Economic Development
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Today

- Chapter 16 of Gregory Clark's "A Farewell to Alms"
- ("A Farewell to Arms" by Ernest Hemingway. 1929.)

Since the Industrial Revolution

- The world has diverged
  - Europe, North America, Oceania
  - 1800: 12 percent world population, 27 percent world income
  - 1913: 20 percent of world population, 51 percent of world income
  - 2000: 12 percent of world population, 45 percent of world income
  - 2000: Output per person in ENAO around 6 times the ROW, and 14 times Africa

Convergence of Explanation

- The failure of political and social institutions explain the divergence
- But that explanation is not valid, according to Clark
  - It does not describe the details of why poor countries are poor
  - Institutional and political reforms have not fixed the problem

Sources of differences in income

- Three sources (like that for differences in growth)
  - Differences in capital per person
  - Differences in land per person
  - Differences in efficiency
- Ultimately, differences in efficiency explains income differences
  - Physical capital stock per person accounts for ¼ of the differences in income
  - The rest is due to the efficiency of utilization of inputs

Capital responded to differences in country efficiency

- So capital stock is also a function of the efficiency of the economy
- Therefore efficiency differences explain the divergence of incomes

Differences in Efficiency

- Sources
  - Discrepancies in access to technologies
  - Scale economies
  - Failure to use imported technologies effectively
- "An inability to effectively employ labor in production"

Evidence

- World capital markets were well integrated
- Capital returns were not correlated with income levels
  - Interest rates were similar across income levels
- Therefore it is hard to explain why rich countries had more capital

What about the cost of capital goods?

- Cost of capital includes the cost of capital goods and the rate of return (interest rate)
  - If capital goods were more expensive in poor countries, it would drive up the overall cost of capital
- Evidence:
  - Capital goods costs were not correlated with income levels

How about resources

- If poor countries had less access to resources, it would explain the divergence
- Evidence:
  - "The world created by the Industrial Revolution is one in which lack of native resources became unimportant as a barrier to industrialization . . ."
  - This is due to lower transportation costs

Efficiency and Divergence

- So for the period, 1870–1913
  - The unimportance of native resources and relatively uniform cost of capital
- Differences in efficiency must explain income differences

- Also note that physical capital stock per person is highly correlated with income per person
- Therefore capital stock variation must be because of efficiency differences

Conclusion

- "In a world of free-flowing capital, differences in the efficiencies of economies are translated into much bigger differences in income through the concentration of capital in the high-efficiency areas."
- The source of income growth over time and causes of the divergence in incomes is the same – efficiency of the economy

So why are some countries inefficient?

Inefficiency in Production

- The poor countries were unable to use technologies effectively
  - Could be because they did not develop the technology?
- Clark provides examples
  - Textile mills
  - Railways

Correlation between output per worker and wages

- Also the surprisingly high labor costs in low-wage countries

Bottom Line

- Efficiency in production therefore explains the success of economies in the years 1800–2000.