Economics 210A
Spring 2015

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LECTURE 14
20th Century Growth

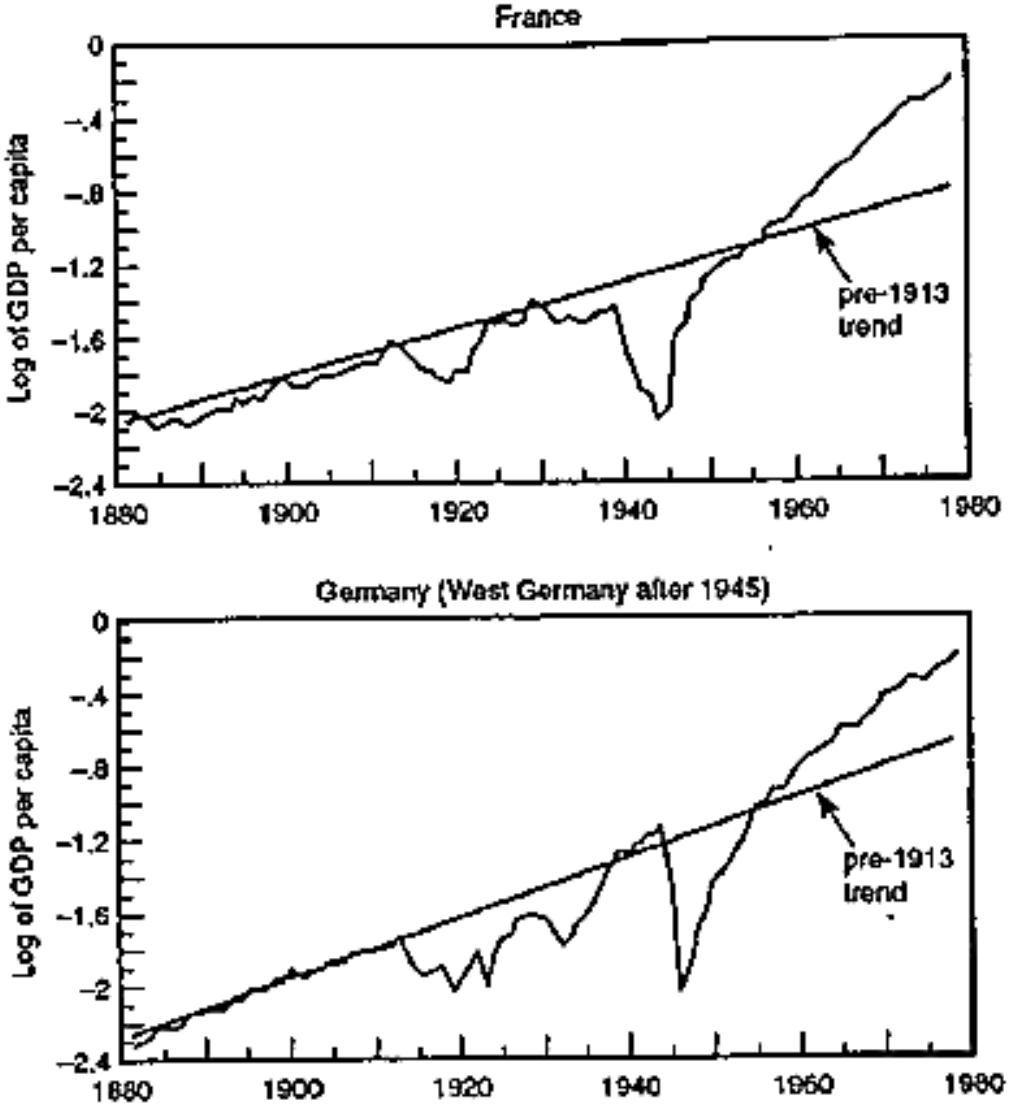
May 6, 2015

Papers

- DeLong and Eichengreen: The Marshall Plan and Western Europe's "golden age."
- Schmitz: A detailed case study of inefficiency.
- Gordon: Prospects for the long run.

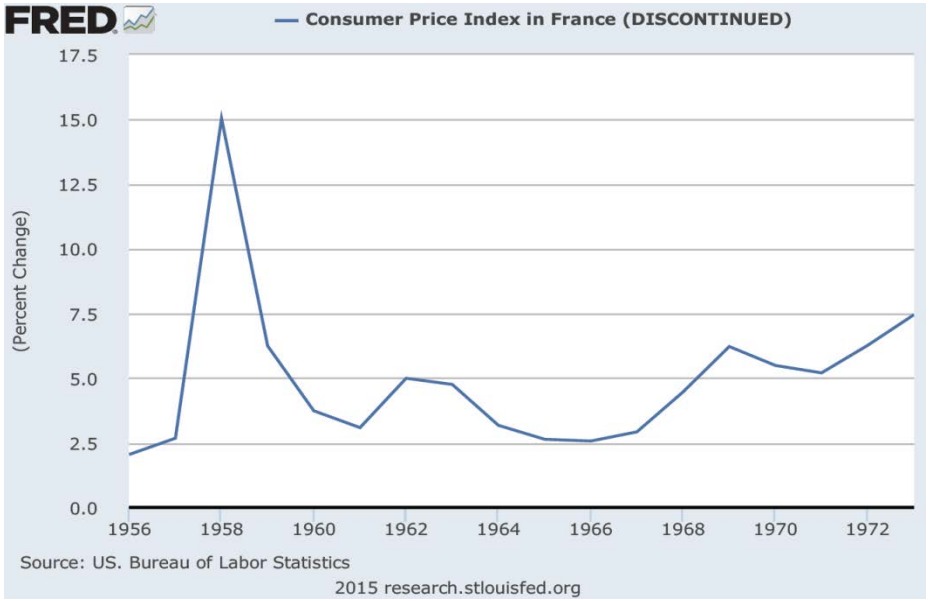
I. DeLong and Eichengreen

"The Marshall Plan: History's Most Successful Structural Adjustment Program"



From: DeLong and Eichengreen, "The Marshall Plan"


FRED
Unemployment Rate: Aged 15-74: All Persons for France©
(Percent)
2.6
2.4
2.2
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
1956
1958
1960
1962
1964
1966
1968
1970
1972
Source: Organisation for Economic Co-operation and Development
2015 research.stlouisfed.org


FRED
Consumer Price Index in France (DISCONTINUED)
(Percent Change)
17.5
15.0
12.5
10.0
7.5
5.0
2.5
0.0
1956
1958
1960
1962
1964
1966
1968
1970
1972
Source: US. Bureau of Labor Statistics
2015 research.stlouisfed.org

The Marshall Plan

- Roughly $13.2 billion over 1948–1951, mainly to the U.K., France, West Germany, and Italy.
- Relative to U.S. GDP, equivalent to about $800 billion today.
- 3/5 to “food, feed, fertilizers, industrial materials, and semifinished products”; 1/6 to fuel; 1/6 to “machinery, vehicles, and other commodities.”

DeLong and Eichengreen's Thesis

The Marshall Plan had large effects by:

- Helping to shift countries' focus from distributional conflicts to growth.
    - It accomplished this both by making the pie bigger and by being conditional on the absence of large overt distributional conflicts.
- Encouraging countries to adopt relatively market-oriented institutions and policies.
    - It accomplished this by being conditional on the adoption of such policies.

Alternative Views of the Marshall Plan

- It had large effects because resources provided to countries had extremely high marginal products through private investment, public investment, and relieving bottlenecks.

- It had small effects.

DeLong and Eichengreen's Evidence against the Alternative Theories of How the Marshall Plan Had Large Effects

- Various simple facts and back-of-the-envelope calculations.

DeLong and Eichengreen's Evidence for Their Thesis

- Policies and institutions could have been much less market-oriented, and distributional conflicts could have taken a severe toll:
  - Look at Argentina!
  - Look at what happened after World War I.
  - The potential effects of memories of the Depression.
  - Even with the aid, there were substantial distributional conflicts and support for non-market approaches.
- The Marshall Plan aid was conditional.
- (That conditionality affected recipient countries' decisions.)

DeLong and Eichengreen's Evidence against the View That the Marshall Plan Had Small Effects

- By their own admission, not much.

What Other Evidence Could Shed Light on DeLong and Eichengreen's Thesis and/or the Alternative Views?

II. Schmitz

"What Determines Productivity? Lessons from the Dramatic Recovery of the U.S. and Canadian Iron Ore Industries Following Their Early 1980s Crisis"

Schmitz's Thesis

- There were enormous productivity increases in the iron ore industry from reductions in inefficiency.
- The reductions in inefficiency were driven by increased competition.

Big Picture Questions Issues That Schmitz's Evidence Is Relevant to:

- Are there $500 bills (or in this case, million- or maybe billion-dollar bills) on the sidewalk? ("Satisficing," "X-inefficiency," the Coase theorem, ….)
- What do markets and competition do?

Steps in Schmitz's Argument

- Productivity rose dramatically.
- Conventional factors account for only a small part of the rise.
- Changes in work practices account for most of the rise.
- The changes in work practices were driven by increased competition.

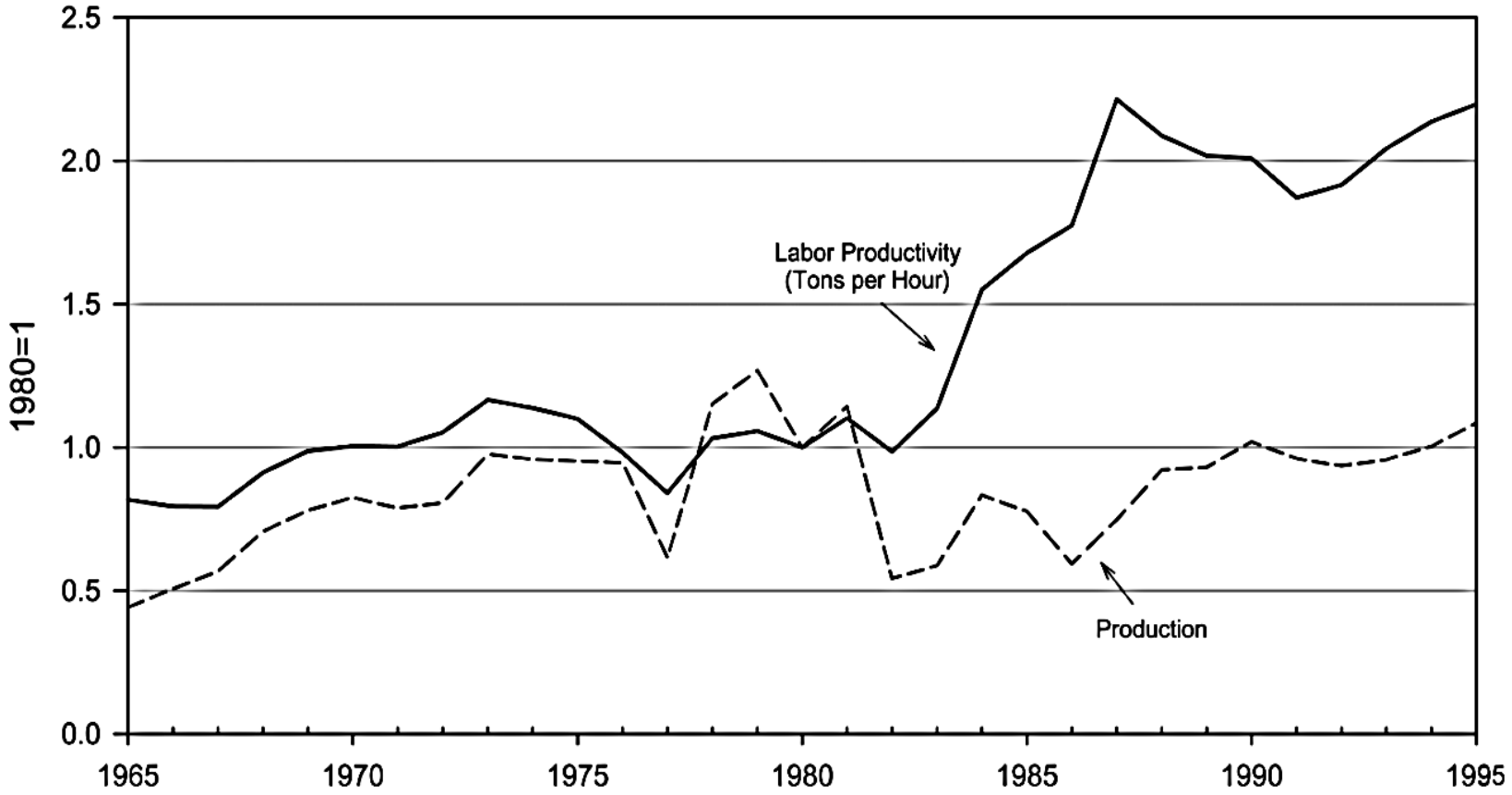


FIG. 2.—Production and labor productivity: Minnesota pellet industry

From: Schmitz, "What Determines Productivity?"

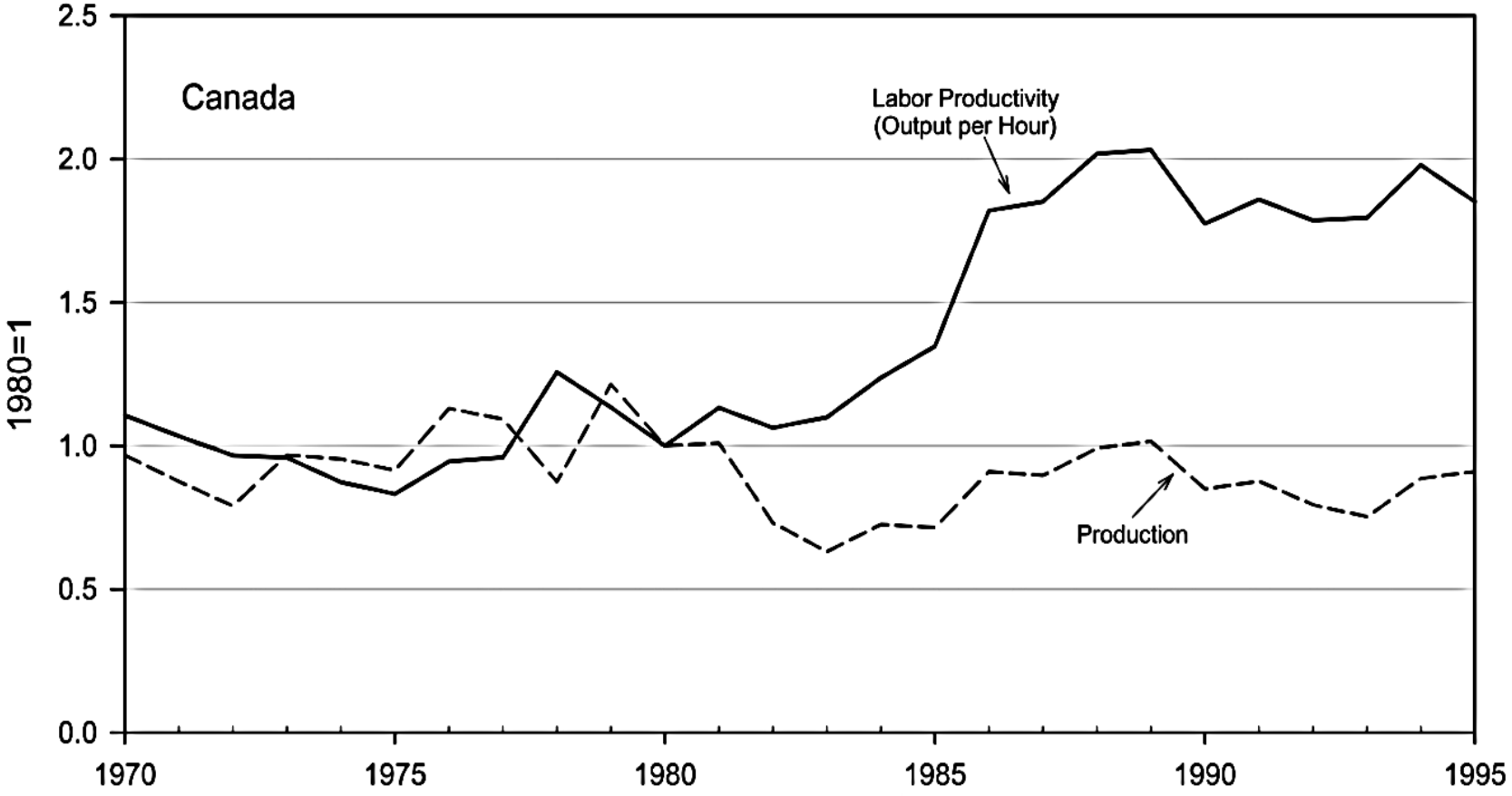


FIG. 4.—Production and labor productivity: Canadian iron ore industry

From: Schmitz, "What Determines Productivity?"

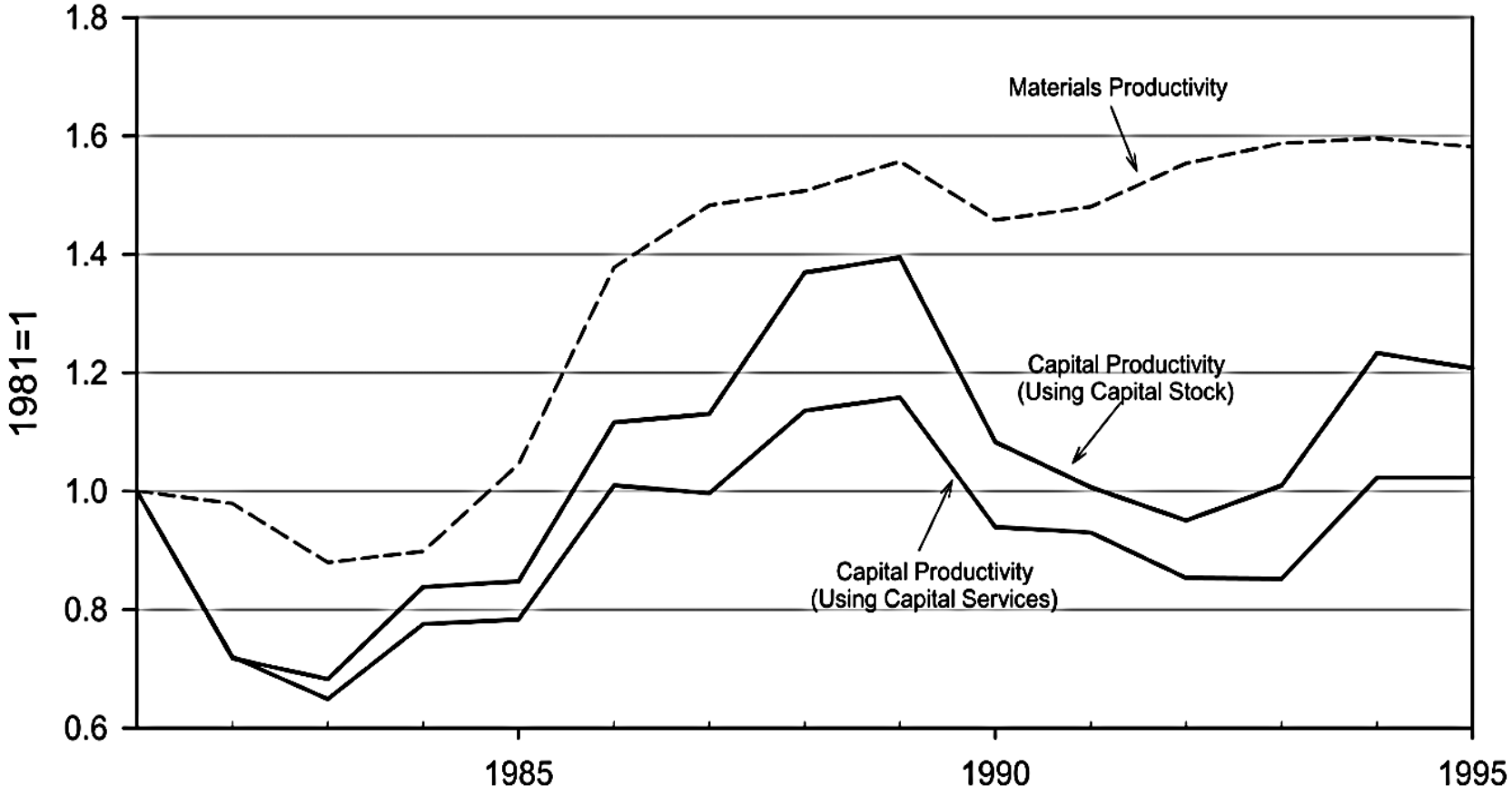


FIG. 5.—Materials productivity and capital productivity: Canadian iron ore industry

From: Schmitz, "What Determines Productivity?"

Conventional Factors That Account for Little or None of the Rise in Productivity

- Closing low-productivity mines.
- Gains from reduced scale of mining.
- Technological progress.
- Increases in worker skill.
- …

Schmitz's Evidence That Changes in Work Practices Account for Most of the Rise in Productivity

- Lots of nitty-gritty/institutional/narrative evidence that work practices changed in ways that had large effects on Y/L, Y/M, and Y/K.

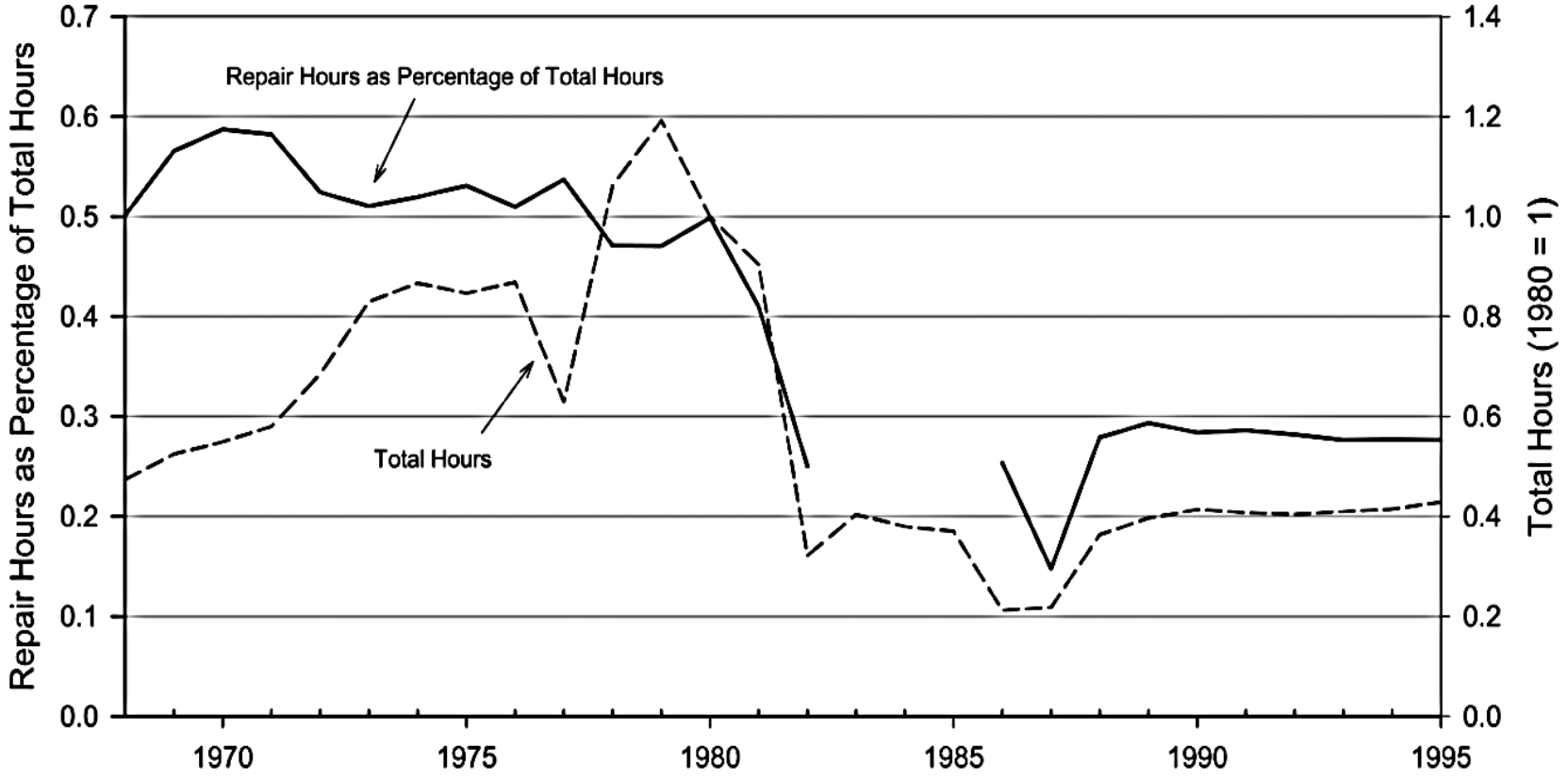


FIG. 10.—Total hours and repair hours as a percentage of total hours: Minntac/USX pellet mine

From: Schmitz, "What Determines Productivity?"

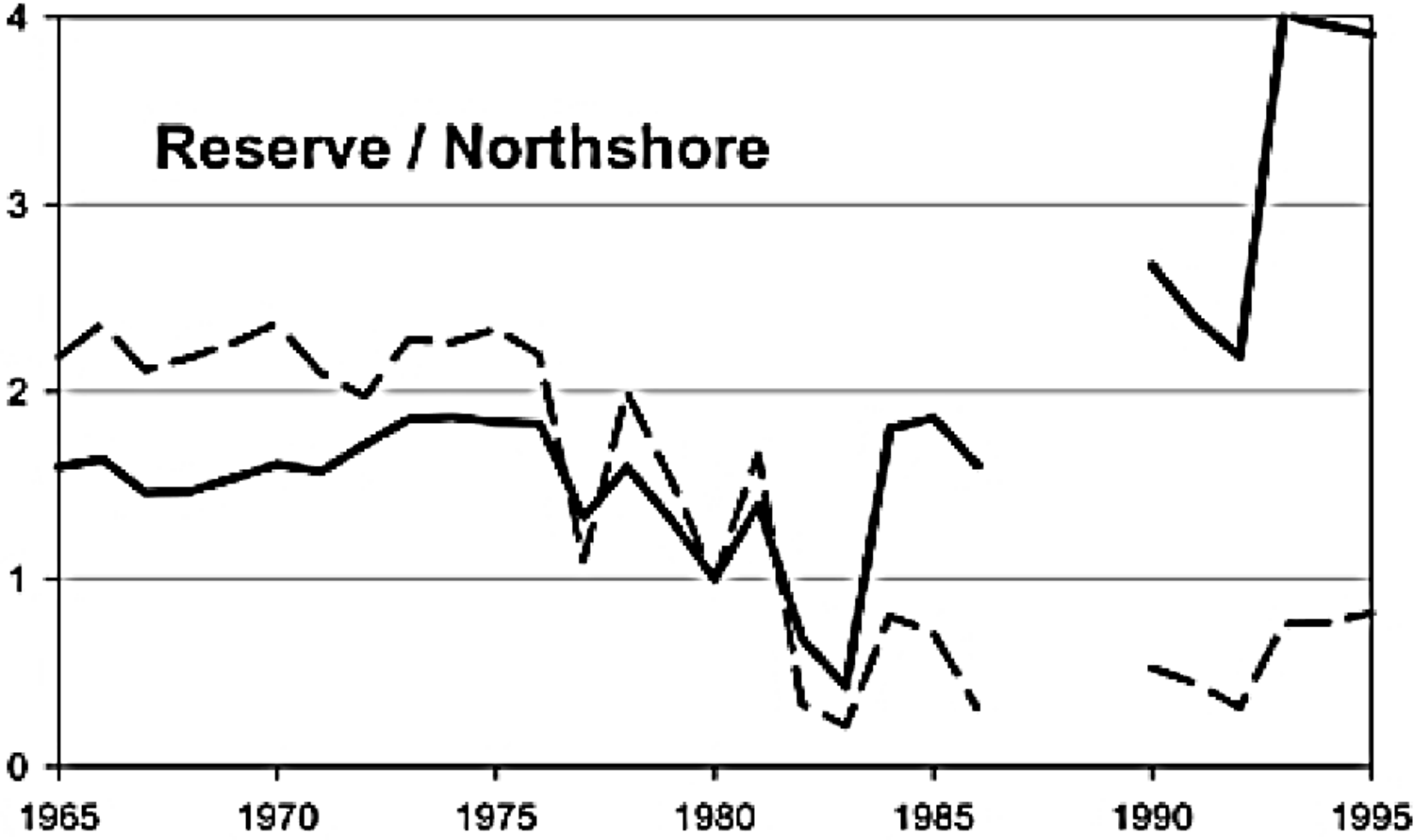


FIG. 7.—Production and labor productivity: Minnesota pellet mines

From: Schmitz, "What Determines Productivity?"

Schmitz's Evidence That Changes in Work Practices Were Driven by Increased Competition

- Evidence from prices and narrative sources that competition increased greatly shortly before the increases in productivity.
- Narrative evidence that the changes in work practices were driven by increased competition.

Schmitz's Conclusion

- "Work practices clearly led to money being flushed down the toilet. I cannot say this loud enough."

- "In answer to my question 'What determines productivity?' the experience of these industries clearly shows, first, that competition does and, second, that work practices do."

Why Were Million Dollar Bills Left on the Sidewalk?

- Disagreements about how to divide the rents?
- Commitment problems if agreements were reached?
- Concerns that outside groups might capture some of the gains?
- A complication? Robe River.

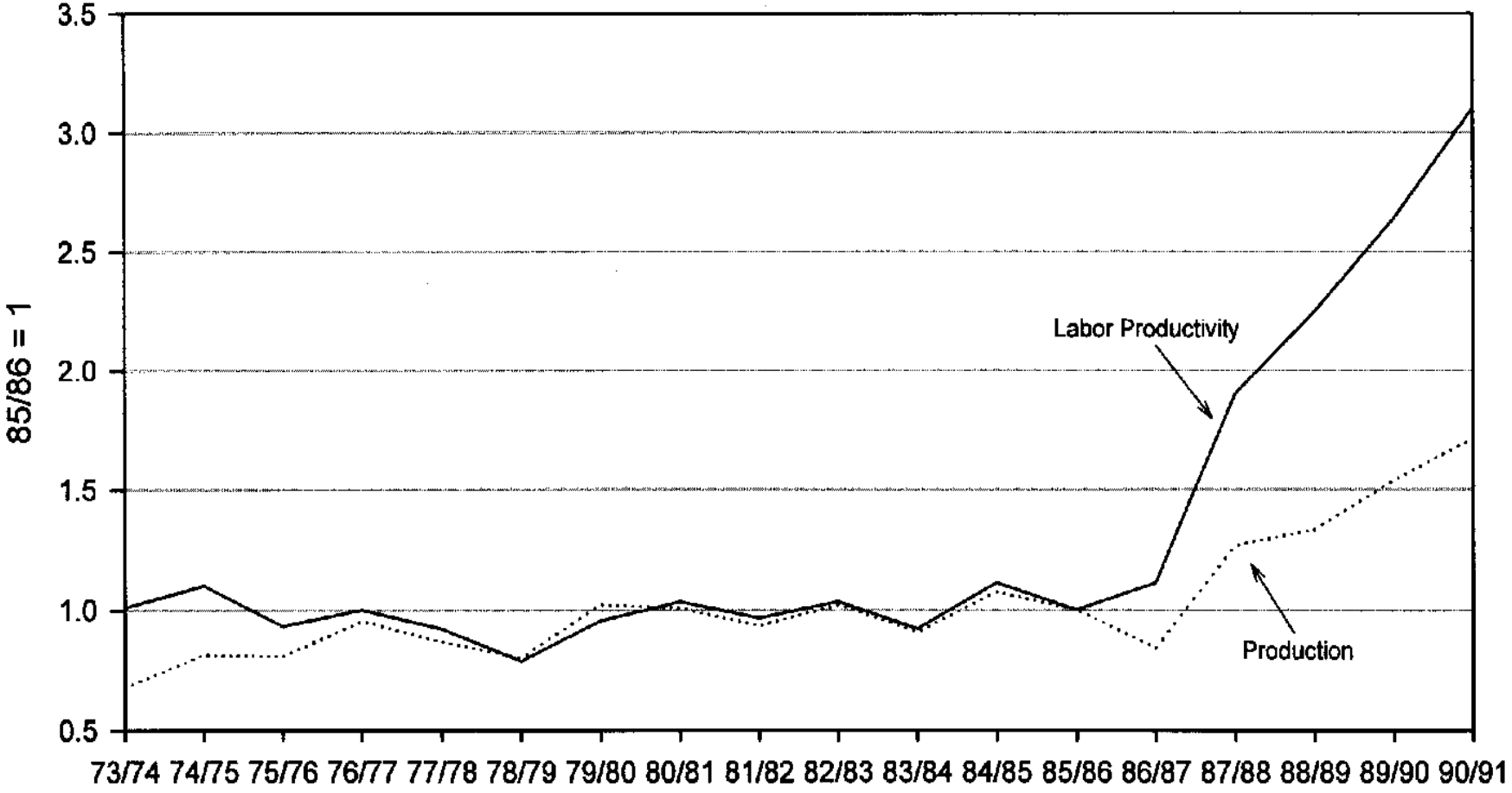


FIG. 11.—Production and labor productivity: Robe River iron ore

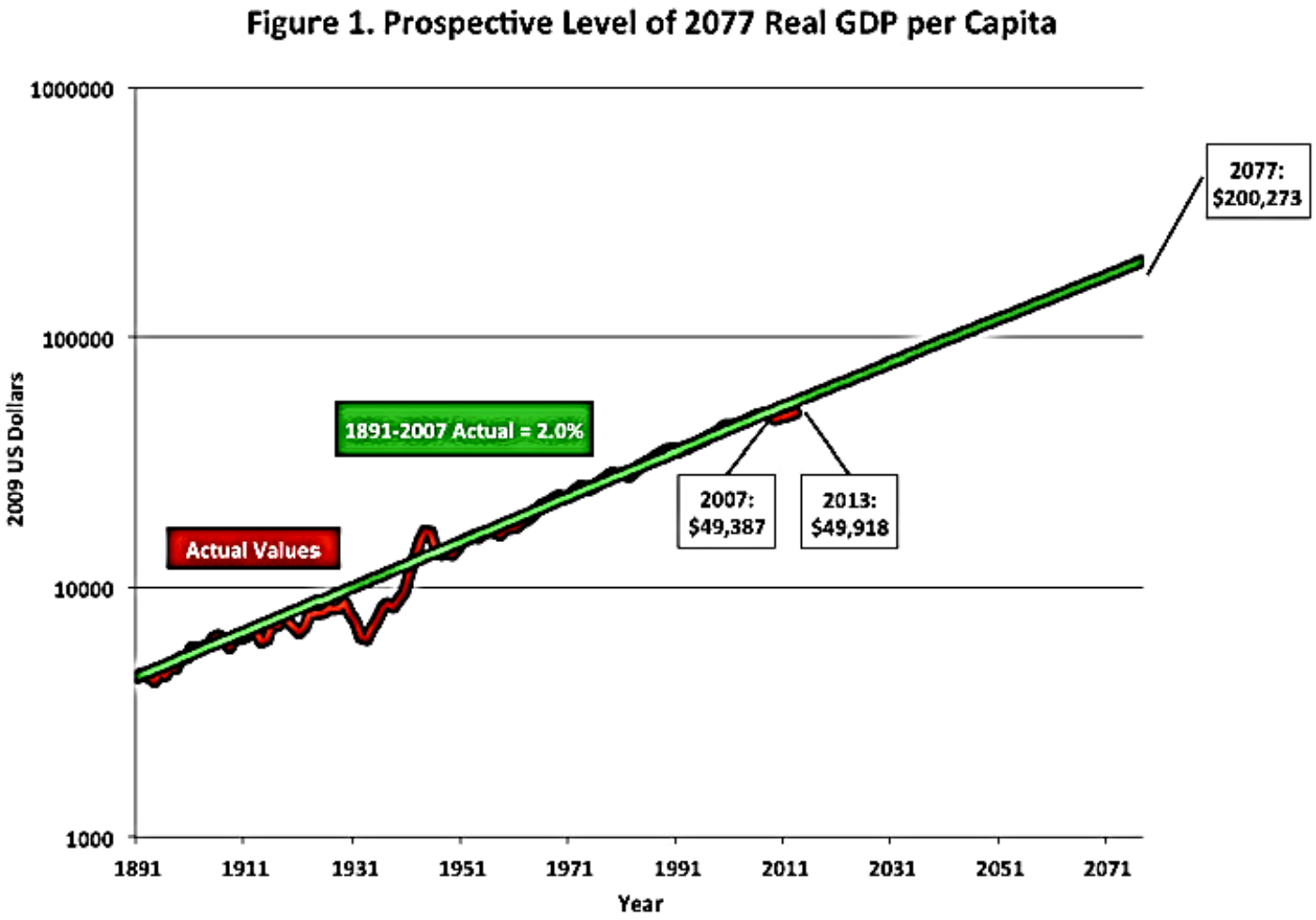
From: Schmitz, "What Determines Productivity?"

III. Gordon:

"The Demise of U.S. Economic Growth: Restatement, Rebuttal, and Reflections"

Gordon's Thesis

- We have a lot of information about future growth prospects.
- Those prospects are not good:
  - The rate of technological progress is not likely to increase.
  - Various forces are likely to make the growth of disposable income for most of the population less than the rate of technological progress.



From: Gordon, "The Demise of U.S. Economic Growth"

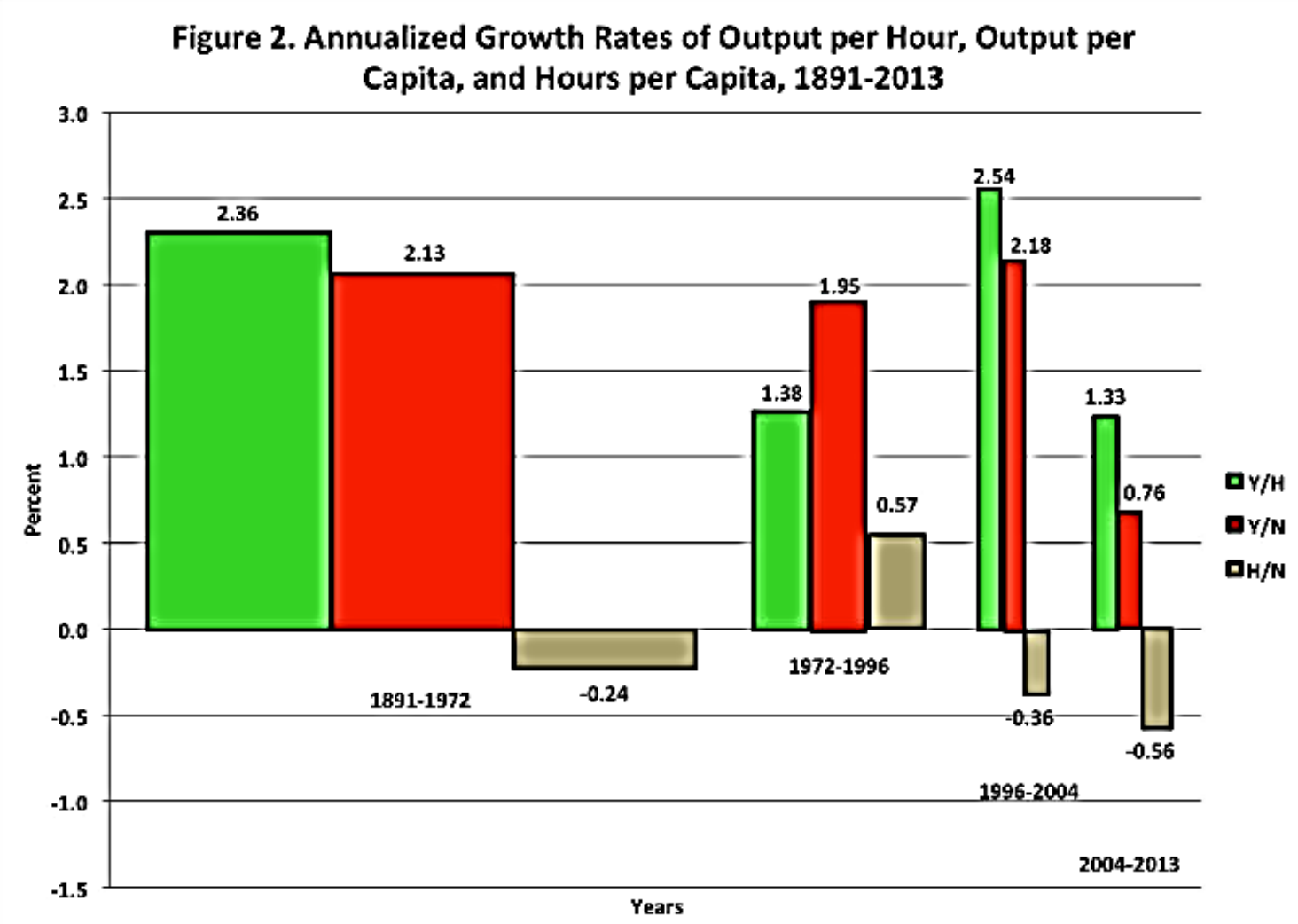


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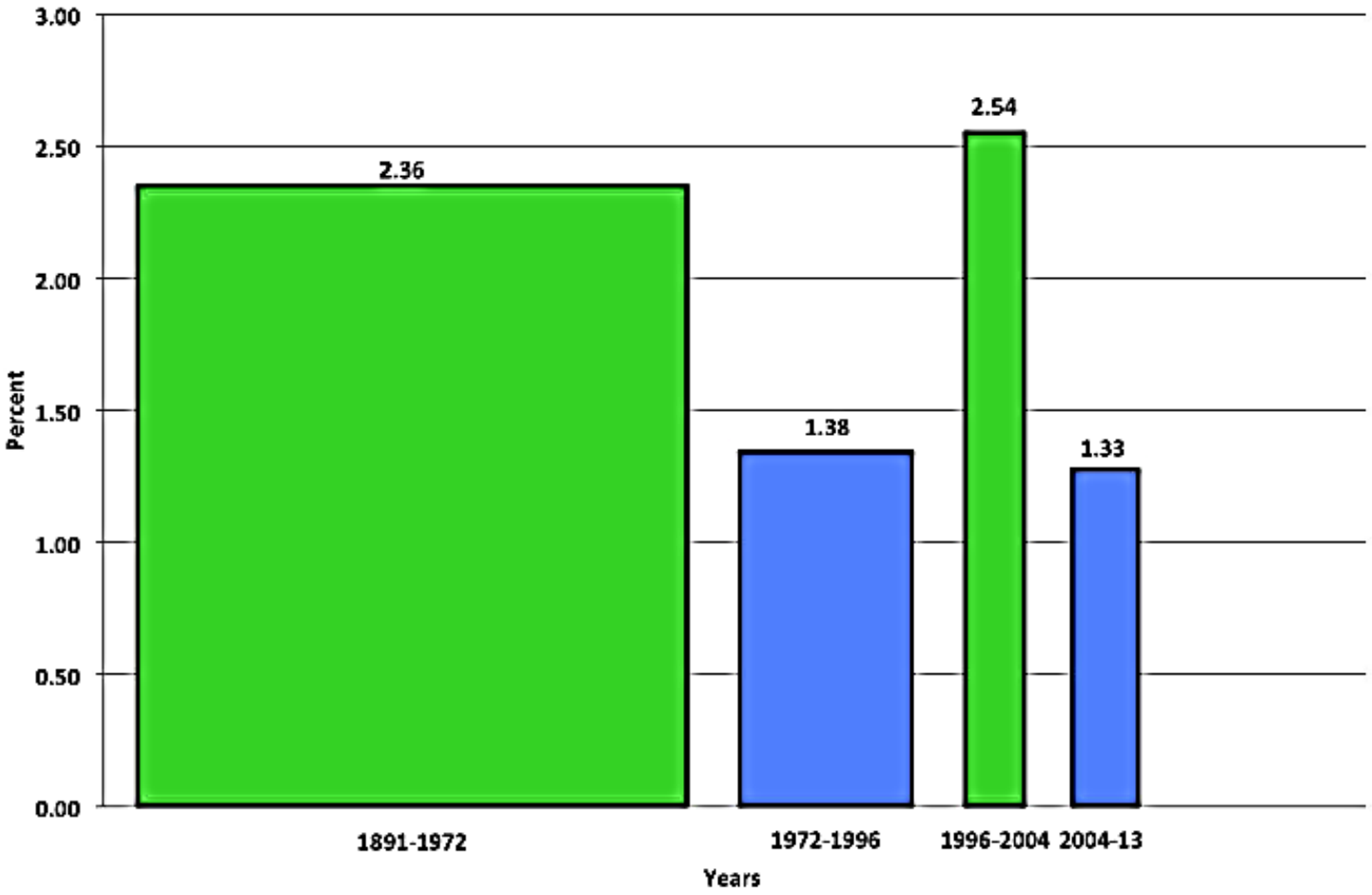
Figure 5. Annualized Growth Rates of Output per Hour, 1891-2013



From: Gordon, "The Demise of U.S. Economic Growth"

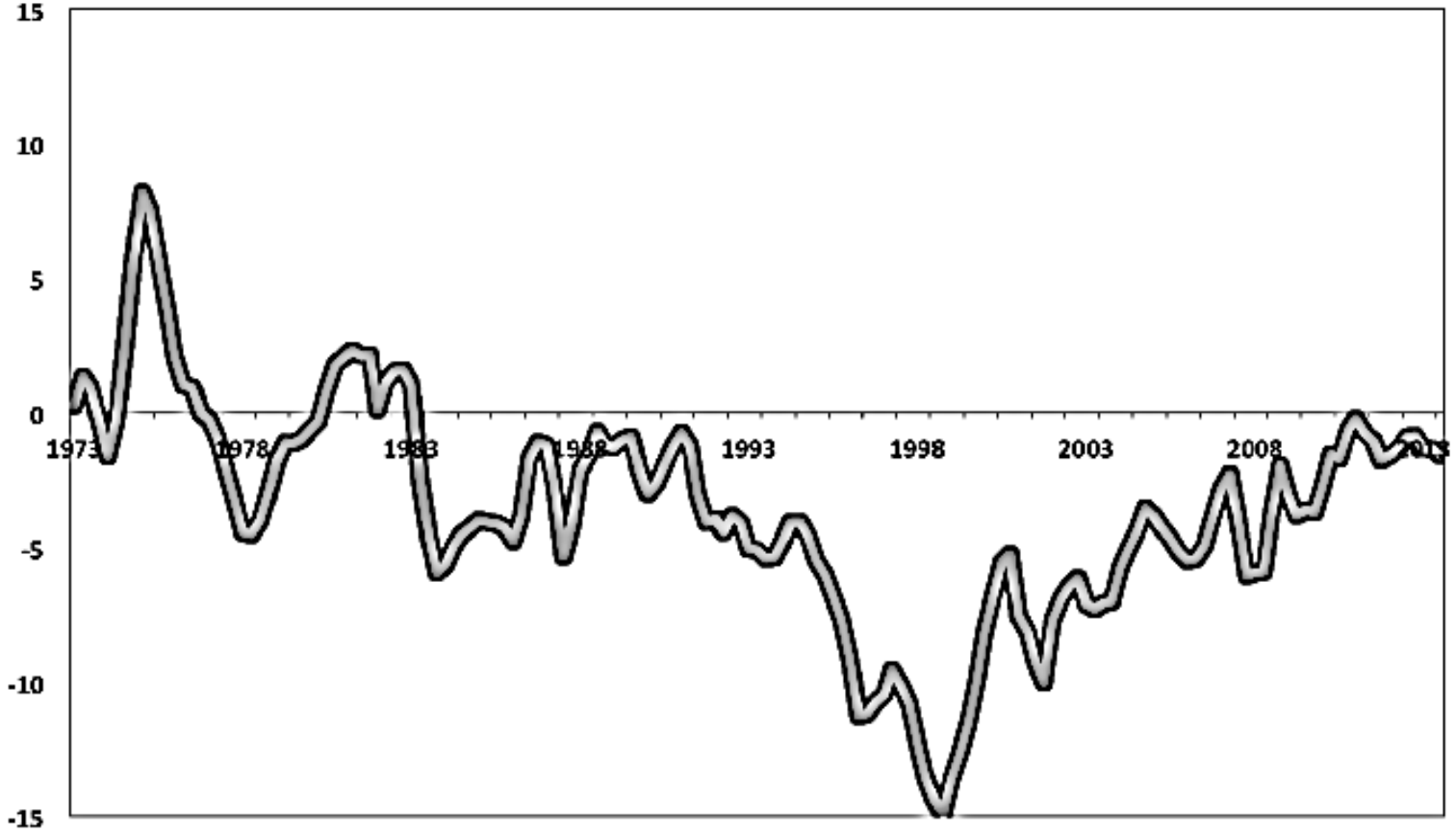
Gordon's Arguments That Technological Progress Is Not Likely to Increase

- Some of the inventions of the "second industrial revolution" were uniquely important.
- Many inventions can be forecast, and the inventions that are forecastable are not super-important.
- The ICT revolution is past its peak.
- Some of the factors that "techno-optimists" point to have already happened.

1900 Predictions from the *Ladies Home Journal*

- “Hot and cold air will be turned on from spigots to regulate the temperature of the air just as we now turn on hot and cold water from spigots.”
- “Ready-cooked meals will be purchased from establishments much like our bakeries of today.”
- “Liquid-air refrigerators will keep large quantities of food fresh for long intervals.”
- “Photographs will be telegraphed from any distance. If there is a battle in China a century hence, photographs of the events will be published in newspapers an hour later.”
- “Automobiles will be cheaper than horses are today. … automobiles will have been substituted for every horse-vehicle now known.”
- “Persons … will be brought within focus of cameras connected with screens at opposite ends of circuits, thousands of miles at a span. … the lips of a remote actor or singer will be heard to offer words or music when seen to move.”

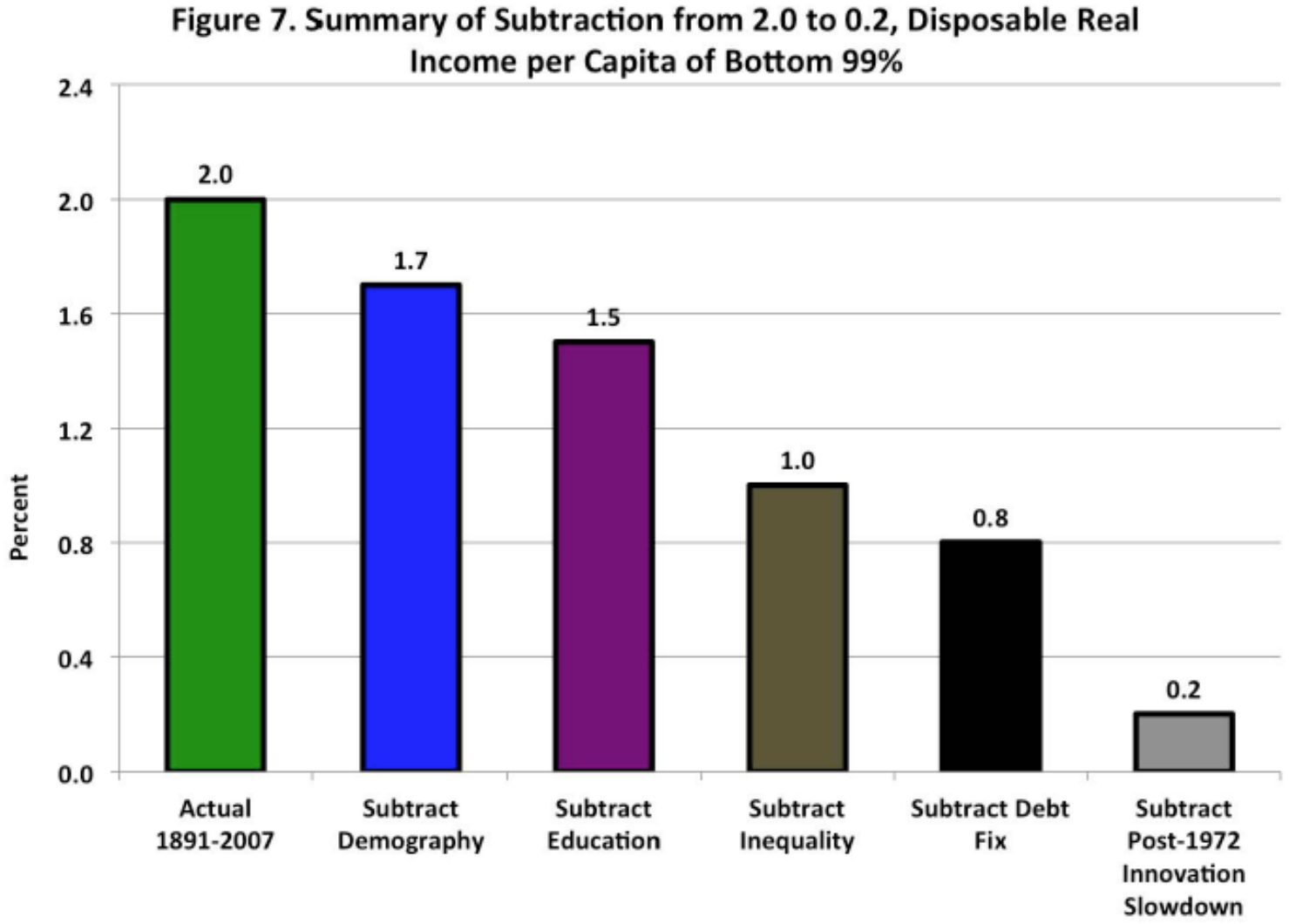
Figure 10. Annual Growth Rate of BEA Price Deflator for All ICT Equipment



From: Gordon, "The Demise of U.S. Economic Growth"

Gordon's "Headwinds"

- Demography.
- Education.
- Inequality.
- Repaying debt.
- (Globalization.)
- (Energy/environment.)
- (An inefficient medical care system.)



From: Gordon, "The Demise of U.S. Economic Growth"

Are There Forces That Might Go the Other Way?

- Might some of the headwinds (for example, rising inequality) relent?
- When something is not working well (for example, the American school system or its medical sector), is that a headwind or an opportunity for faster of growth?
- We owe most of the debt to ourselves.
- On many dimensions, U.S. labor force participation is now low relative to many other advanced countries.
- Could there be increasing bias in price indexes?
- What about the inventions that aren't forecast?

Conclusion

- One thing that is missing is any discussion of uncertainty.