Economics 210a: Spring 2011

Barry J. Eichengreen and J. Bradford DeLong (with assistance from Jan de Vries and Christina Romer)

Evans 639

W 12-2
Administration

• Websites:
  – http://delong.typepad.com/economics_210a_spring_201
  – http://emlab.berkeley.edu/users/webfac/eichengreen/e210a_sp11/e210a.shtml

• Office Hours: W 2-4

• Weekly memos
  – Exercise your prose-writing muscles
  – Get the intellectual juices flowing for the discussion

• Research paper
Schedule

• January 19. Introduction, and the Malthusian Economy (DeLong)
• January 26. The Commercial Revolution (deVries)
• February 2. Slavery, Serfdom and Agriculture (DeLong)
• February 9. The Industrial Revolution (deVries)
• February 16. American Exceptionalism (Eichengreen)
• February 23. The Spread of Modern Economic Growth (DeLong)
• March 2. 19th Century Capital Markets (Eichengreen)
• March 9. 19th Century Labor Markets (Eichengreen)
• March 16. 19th Century Globalization and Financial Crises (DeLong)
• March 30. 19th Century International Money and Finance (Eichengreen)
• April 6. Origins of the Great Depression (Eichengreen)
• April 13. Recovery from the Great Depression (Eichengreen)
• April 20. World War II, the Mixed Economy and Actual Existing Socialism (DeLong)
• April 27. The Crisis of the Mixed Economy and the Great Divergence (DeLong)
Why Are We Here?

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Why Are We Here?

• We think it is obvious that all economic theory is crystallized history
  – And if you don’t know the history that you are crystallizing your theory out of, you can go horribly wrong

• It’s probably best to just start in—and if we do our job we will have convinced those of you who don’t think now that this course is perhaps the most important first-year course that it is.

• Still, I cannot resist what I regard as a cautionary tale: the trouble you can get into if you don’t know your economic history and yet attempt to be an economist
Economists Analyzing Poorly I

• We saw an awful lot of economists behaving badly during the recent financial crisis, I would argue in large part because they did not know enough economic history to think issues through

• Example: Robert Lucas:
  – Christina Romer--here's what I think happened. It's her first day on the job and somebody says, you've got to come up with a solution to this--in defense of this fiscal stimulus, which no one told her what it was going to be, and have it by Monday morning.... [I]t's a very naked rationalization for policies that were already, you know, decided on for other reasons.... If we do build the bridge by taking tax money away from somebody else, and using that to pay the bridge builder--the guys who work on the bridge -- then it's just a wash... there's nothing to apply a multiplier to. (Laughs.)... And then taxing them later isn't going to help, we know that...

• Can a government decision to borrow-and-buy boost spending?
  – The answer is “no” in a fully-Ricardian world in which government purchases are perfect substitutes for private consumption
  – But in such a world there is no reason to think that monetary policy would boost or retard spending either
  – And surely history teaches us that that must be wrong, doesn’t it?
  – Otherwise the answer is “yes.”
Economists Analyzing Poorly II

• Example: Eugene Fama:
  – [P]rivate investment [PI] must equal the sum of private savings [PS], corporate savings (retained earnings) [CS], and government savings [GS].

  (1) \( PI = PS + CS + GS \)

  Government bailouts and stimulus plans seem attractive when there are idle resources - unemployment. Unfortunately, bailouts and stimulus plans are not a cure. The problem is simple: bailouts and stimulus plans are funded by issuing more government debt. The added debt absorbs savings that would otherwise go to private investment.

  \[ G \]overnment infrastructure investments must be financed -- more government debt. The new government debt absorbs private and corporate savings, which means private investment goes down by the same amount...

• Can a government decision to borrow-and-buy boost spending?
  – The answer is “no” in a fully cash-in-advance world in which the money stock is fixed
  – Otherwise the answer is “yes.”

• Neither Lucas nor Fama are commonly thought of as being stupid people
• But neither Lucas nor Fama spends any time thinking about the history, as opposed to the theory and the CRISP tape.
In the Shadow of Malthus

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Direct Estimates of Long-Run Real Wage Trends

- We know what monks paid their construction workers.
- We know what bread and other staples cost.
- Questions about whether these workers are in any sense representative.
A Malthusian Economy?

- We are not terribly unhappy with our population estimates.
- We are unhappy with our estimates of modern economic growth
  - But the thing itself exists
  - And before MEG there must have been living standard stagnation
- Those together imply the picture that we have.

Table 1: Longest-Run Economic Growth

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td></td>
<td>$500</td>
</tr>
<tr>
<td>750</td>
<td></td>
<td>$500</td>
</tr>
<tr>
<td>1500</td>
<td></td>
<td>$500</td>
</tr>
<tr>
<td>1800</td>
<td></td>
<td>$600</td>
</tr>
<tr>
<td>1900</td>
<td>1500</td>
<td>$1200</td>
</tr>
<tr>
<td>2007</td>
<td>6300</td>
<td>$7000</td>
</tr>
</tbody>
</table>

Where is the innovation?
Nasty, Brutish, and Short

- The phrase is Thomas Hobbes’s
- Modern standard of living is worth 10 cm.
- Practically every non-aristo skeleton from our agrarian past is really short
  - Exceptions: fish eaters
  - Exceptions: Souix
  - Exceptions: Hunter-gatherers
- What does being 10 cm. shorter do to brain development?

### Table 2: Rick Steckel’s Estimates of the Relationship Between Height and Income

<table>
<thead>
<tr>
<th>Per Capita Income (1985 U.S. $)</th>
<th>Boys Aged 12</th>
<th>Girls Aged 12</th>
<th>Adult Men</th>
<th>Adult Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>1000</td>
<td>137.4</td>
<td>138.3</td>
<td>163.2</td>
<td>151.8</td>
</tr>
<tr>
<td>2000</td>
<td>140.8</td>
<td>141.7</td>
<td>166.0</td>
<td>154.6</td>
</tr>
<tr>
<td>3000</td>
<td>142.8</td>
<td>143.7</td>
<td>167.6</td>
<td>156.2</td>
</tr>
<tr>
<td>4000</td>
<td>144.2</td>
<td>145.1</td>
<td>168.7</td>
<td>157.3</td>
</tr>
<tr>
<td>5000</td>
<td>145.3</td>
<td>146.2</td>
<td>169.6</td>
<td>158.2</td>
</tr>
<tr>
<td>6000</td>
<td>146.2</td>
<td>147.1</td>
<td>170.4</td>
<td>158.9</td>
</tr>
<tr>
<td>8000</td>
<td>147.6</td>
<td>148.5</td>
<td>171.5</td>
<td>160.1</td>
</tr>
<tr>
<td>10000</td>
<td>148.7</td>
<td>149.6</td>
<td>172.4</td>
<td>161.0</td>
</tr>
<tr>
<td>12000</td>
<td>149.6</td>
<td>150.5</td>
<td>173.1</td>
<td>161.7</td>
</tr>
</tbody>
</table>

The Obvious Model

- Production function, capital accumulation equation, TFP growth $\pi$, population equation
- Will produce one and only one semi-steady-state balanced-growth path.
  - All TFP growth goes into population growth
  - None into rising living standards

\[
\begin{align*}
\ln(Y) &= \ln(A) + s_k \ln(K) + s_r \ln(R) + s_l \ln(L) \\
k &= \frac{1}{K} \frac{dK}{dt} = S\left(\frac{Y}{K}\right) - \delta \\
n &= \gamma(1-S)\left[\frac{Y}{L} - C_{sub}\right] \\
\left(\frac{Y}{L}\right)^* &= \frac{1}{1-S} \left[ C_{sub} + \frac{\pi}{\gamma(1-s_l-s_k)} \right]
\end{align*}
\]
Malthus’s Policy Recommendations

• All of the action is in $C^{\text{sub}}$, therefore...

• Delaying the start of sexual activity humanity’s only chance:
  – Patriarchy
  – Theocracy
  – Monarchy

• a most disheartening reflection that the great obstacle in the way to any extraordinary improvement in society is of a nature that we can never hope to overcome..... Yet, discouraging as the contemplation of this difficulty must be to those whose exertions are laudably directed to the improvement of the human species, it is evident that no possible good can arise from any endeavours to slur it over or keep it in the background.

• On the contrary, the most baleful mischiefs may be expected from the unmanly conduct of not daring to face truth because it is unpleasing.... [I]f we unwisely direct our efforts towards an object in which we cannot hope for success, we shall not only exhaust our strength in fruitless exertions and remain at as great a distance as ever from the summit of our wishes, but we shall be perpetually crushed by the recoil of this rock of Sisyphus...
Malthus’s Theory

• A pretty good theory as of 1800...
• Not at all a good theory as of 1850...
• An absolutely lousy theory as of today...
  – Or is it?

Figure 1: Real Wages of Construction Workers in England as Estimated by Greg Clark, 1200-Present

Source: Gregory Clark (2007), A Farewell to Alms; A Brief Economic History of the World (Princeton: 0691121354).
Back to TFP Growth

• Why was worldwide TFP growth so terribly, pitifully slow before MEG?
  – 6 billion heads are better than 5 million
  – Standing on the shoulders of giants
  – Incentives to innovate rather than plunder (William Gates vs. William Marshall)
  – “Culture”
    • Sir M.I. Finley
    • Moses Israel Finkelstein

Table 1: Longest-Run Economic Growth

<table>
<thead>
<tr>
<th>Period</th>
<th>Real GDP Growth</th>
<th>TFP Growth (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>-8000-0</td>
<td>0.04%</td>
<td>0.01%</td>
</tr>
<tr>
<td>0-1500</td>
<td>0.07%</td>
<td>0.02%</td>
</tr>
<tr>
<td>1500-1800</td>
<td>0.2%</td>
<td>0.09%</td>
</tr>
<tr>
<td>1800-1900</td>
<td>1.38%</td>
<td>0.89%</td>
</tr>
<tr>
<td>1900-2007</td>
<td>3.38%</td>
<td>2%</td>
</tr>
</tbody>
</table>
Aristotle

• Karl Polanyi thought Aristotle's economic naivete was because the commercial economy was new. He was surely wrong: it was rather something that Aristotle as a Hellenic aristocrat would have been embarrassed to be caught thinking seriously about.

• Aristotle of Stagira was not an idiot. For two thousand years people called him "the philosopher"—as if there was only one.
Aristotle’s Economics

- Think about how a very good mind could wind up thinking
  - gross inequality--domination and slavery--is natural and inevitable
  - the 'natural art of acquisition'--the getting of the resources necessary to properly run one's household--has a limit: 'a boundary fixed, just as there is in the other arts; for the instruments of any art are never unlimited... and riches may be defined as a number of instruments to be used in a household or in a state...'? (Never mind that Aristotle's "limit" is probably the full-time year-round labor of at least fifty people, at today's OECD wage levels some $3,000,000 a year: in one sense very, very few of us will ever come near to Aristotle's point of satiation; in another sense every single one of us has already gone far beyond Aristotle's limit.)
  - shepherds are '...the laziest [of men]... lead an idle life... get their subsistence without trouble from tame animals...’?
  - that '[t]here are two sorts of wealth-getting... one is a part of household management, the other is retail trade: the former necessary and honorable, while that which consists in exchange is justly censured; for it is unnatural, and a mode by which men gain from one another...’?
  - '...the practical part [of wealth-getting] the discussion of such matters is not unworthy of philosophy, but to be engaged in them practically is illiberal and irksome’?
- Don't miss Aristotle's story of Thales of Miletos and his corner of the olive-press-rental market on Khios.
Aristotle on Slavery

• Property is a part of the household... no man can live well, or indeed live at all, unless he be provided with necessaries.... [T]he workers must have their own proper instruments... of various sorts; some are living, others lifeless; in the rudder, the pilot of a ship has a lifeless, in the look-out man, a living instrument...

• [I]f every instrument could accomplish its own work, obeying or anticipating the will of others, like the statues of Daedalus, or the tripods of Hephaestus... the shuttle would weave and the plectrum touch the lyre without a hand to guide them, chief workmen would not want servants, nor masters slaves....

• But is there any one thus intended by nature to be a slave, and for whom such a condition is expedient and right?... There is no difficulty in answering this question... that some should rule and others be ruled is a thing not only necessary, but expedient; from the hour of their birth, some are marked out for subjection, others for rule...