Economics 1: Fall 2010

J. Bradford DeLong, Michael Urbancic, and a cast of thousands...

http://delong.typepad.com/econ_1_fall_2010/
Economics 1: Fall 2010: The Need for Depression Economics


September 1, 2010, 12-1
Wheeler Auditorium, U.C. Berkeley
Ladies and Gentlemen, to Your i>Clickers...

• What are the most important things that are different about this course compared to your standard American college introductory economics course?
  – A. This is at an easier university with better weather
  – B. This is at a harder university with longer semesters
  – C. This is a one semester course at a harder university
  – D. This is a larger course at an easier university
  – E. This is a pre-Gutenberg course
The Employment-to-Population Ratio, Seasonally Adjusted
The Unemployment Rate in Historical Perspective
Associated with Fall-Offs in the Pace of Spending
The NIPA: Production in the Third Quarter of 2007 (Billions of Dollars at Annual Rates)

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Domestic Product</td>
<td>$14,179.9</td>
</tr>
<tr>
<td>- change in inventories</td>
<td>$31.0</td>
</tr>
<tr>
<td>= final sales of domestic product</td>
<td>$14,148.8</td>
</tr>
<tr>
<td>- net exports</td>
<td>-$698.4</td>
</tr>
<tr>
<td>= final sales to domestic purchasers</td>
<td>$14,847.2</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross exports</td>
<td>$1,685.2</td>
</tr>
<tr>
<td>- gross imports</td>
<td>$2,383.6</td>
</tr>
<tr>
<td>= net exports</td>
<td>-$698.4</td>
</tr>
</tbody>
</table>
Would This Flow of Economic Activity Continue Smoothly?

• A market economy—one in which most people didn’t make their own subsistence—was a new thing.

• Was it stable?
Jean-Baptiste Say, in 1803, Says: “Yes”

- You can’t eat money
- Nobody sells unless they want to then buy
- Hence production creates demand
- Particular gluts—excess supply here and excess demand there—but no “general gluts”
Hence the Circular Flow of Economic Activity

*Figure Legend:* A version of the *circular flow diagram*. Households spend money buying the products made by businesses, and businesses turn around and spend the same money buying *factors of production*—workers' time and attention, finance, the use of land and other property—from households.
But Somehow the Circular Flow—Sometimes—Doesn’t Maintain Itself
THERE IS A FLAW IN SAY’S (1803) THEORY SOMEWHERE!!
Some Economists Deny There Is Anything Wrong with Say’s Law

• They say that it is not the case right now that there are a lot of people who want to work at prevailing wages in jobs where they would be productive, but somehow cannot.
• They say there really are no such things—no “general gluts” at all
• Instead, what appear to be “general gluts” are something else:
  – They have three wrong theories:
    • Great vacation
    • Great forgetting
    • Great confusion about what your salary is worth
  – A fourth: “great immobilization”, “structural unemployment”
    • The unemployed not “choosing” to be unemployed, but it is a mistake to help them...
The Right Theory of the Great Recession

• A fall-off, a collapse in total economy-wide spending
  – That leads to a collapse in employment, and further falls in spending, that lead to further falls in employment

• This was cutting-edge economics—back in 1829, that is
Jean-Baptiste Say vs. Thomas Robert Malthus
Say 1803: No Such Thing as a “General Glut”

• Whoever offers a commodity for sale, desires to obtain a commodity in exchange for it, and is therefore a buyer by the mere fact of his being a seller. The sellers and the buyers, for all commodities taken together, must, by the metaphysical necessity of the case, be an exact equipoise to each other; and if there be more sellers than buyers of one thing, there must be more buyers than sellers for another...
Say: Structural Unemployment, Not “General Glut”

- The move of workers from slack-demand to high-demand industries may take a long time
- But it will happen
- Boosting demand will simply create inflation in high-demand industries
- And retard the movement of labor out of slack demand industries
Malthus: Do You Believe Your Theory or Your Lying Eyes?

- we hear of glutted markets, falling prices, and cotton goods selling at Kamschatka lower than the costs of production.... [l]t is a tenet of the new doctrine... that if one trade be overstocked... some other trade is understocked. But where, I would ask, is there any considerable trade that is confessedly understocked, and where high profits have been long pleading in vain for additional capital?...
Say’s 1829 Recantation: I Believe My Eyes

- The Bank [of England]... Cease[d] to discount.... Provincial banks... obliged to follow the same course... commerce found itself deprived at a stroke of the advances on which it had counted.... As the bills that businessmen had discounted came to maturity, they were obliged to meet them... to use up all the resources at his disposal. They sold goods for half what they had cost. Business assets could not be sold at any price. As every type of merchandise had sunk below its costs of production, a multitude of workers were without work... Bankruptcies... Bankers.. could no longer find guarantees to cover their issues...
John Stuart Mill: Excess Supply of Goods Is Excess Demand for Money

- What they called a general superabundance was... of all commodities relatively to money... Persons... from a general expectation of being called upon to meet sudden demands, liked better to possess money.... Money... was in request... other commodities... in... disrepute. In extreme cases, money is collected in masses, and hoarded... the result is, that all commodities fall in price, or become unsaleable... No... impropriety in saying that there is a superabundance of all or most commodities...
A Simple Three-Sector Economy
Ladies and Gentlemen, to Your i>Clickers...

• Who is your favorite actor in the Harry Potter movie series?
  – A. David Radcliffe
  – B. Rupert Grint
  – C. Emma Watson
  – D. John Stuart Mill
  – E. Mary Wollstonecraft
A Simple Three-Sector Economy
More Yoga, Less Coffee
Barista Employment Shrinks, Yoga Employment Grows
Demand for Cash

$$$$
Barista Employment Shrinks, Nothing Grows

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And Then as Barista Spending Shrinks, All Employment Shrinks
Ladies and Gentlemen, to Your i>Clickers...

• Who were the classical economists who originally denied the possibility of a “general glut,” who argued that such things did exist, and who resolved the debate, respectively?
  – A. Thomas Malthus, Jean-Baptiste Say, and David Radcliffe
  – B. Rupert Glint, John Stuart Mill, and Thomas Malthus
  – C. Jean-Baptiste Say, Thomas Malthus, and John Stuart Mill
  – D. Jean-Baptiste Say, Mary Wollstonecraft, and John Stuart Mill
  – E. John Stuart Mill, Thomas Malthus, and Jean-Baptiste Say
Excess Demands That Can Disrupt the Circular Flow

• Three kinds:
  – Demand for liquid cash money
  – Demand for bonds—i.e., for places to store your wealth because you don’t want to spend it now, you want to save it and spend it in the future
  – Demand for high-quality assets: places where you can be sure that your money won’t melt away

• We had the first in 1982, the second in 2001, and we have the third type today
How Low Will the Economy Go?

• We need a model
• The income-expenditure framework
• Assume: downward-sticky wages and prices
• Recall: \( E = C + I + G + NX \)
  – \( E \): total expenditure, total economy-wide spending
  – \( C \): consumption spending by households
  – \( I \): investment spending, spending by businesses to add to their productive capacity
  – \( G \): government purchases
  – \( NX \): net exports, exports minus imports, the balancing item—it does employment in America no good at all if American consumers spend like mad but spend all they have on imports
Building Our Model

• $E = C + I + G + NX$, more complicated than we need
• $O = I + G + NX$; $O$ “other spending”; $E = C + O$
• Consumption function:
  – Remember, one important thing we need to model is that when people get fired and lose their incomes they stop (or they at least slow down) their spending
  – $C = c_0 + c_y \times Y$; $Y$ – income, production
    • Today: $c_0 = $3.5 trillion/year
    • Today: $c_y = 0.5$
Ladies and Gentlemen, to your i>Clickers...

• Why then these symbols $c_0$ and $c_y$? Why not simply “$3.5T/yr$” and “0.5”?
  – A. If we economists use more and more complicated math than necessary, the political scientists will be scared of us and won’t apply for the jobs we want for our students.
  – B. If we economists use more and more complicated math than necessary, the political scientists will be scared of us and won’t question our conclusions in books and seminars.
  – C. We economists paid attention in math when younger: it has to be good for something!
  – If we had “$3.5T/yr$” and “0.5” we would have to redo the entire analysis from scratch everytime either of those numbers changed. If we keep $c_0$ and $c_y$ then we can keep reusing our old analysis over and over again, simply plugging in the current values at the end. That’s what algebra is good for: it enables you to do not just one calculation but entire families of calculations all at once and easily—and then whenever you need one member of that family you have it on the shelf to pick up and use.
Building Our Model II

- $E = O + C$
- $C = c_0 + c_y \times Y$
- $E = O + c_0 + c_y \times Y$
- What if $E < Y$? Then $Y$ will be shrinking...
- What if $E > Y$? Then $Y$ will be growing...
- Only if $E = Y$ will $Y$ be stable...
- So if we are looking for points of stability—for situations in which $Y$ is not changing rapidly...
- We can assert $Y = E$ and substitute it in
- $Y = O + c_0 + c_y \times Y$
Solving Our Model II

- $Y = O + c_0 + c_y \times Y$
- $Y - c_y \times Y = O + c_0 + c_y \times Y - c_y \times Y$
- $Y - c_y \times Y = O + c_0 + c_y \times Y - c_y \times Y$
- $Y \times (1 - c_y) = O + c_0$
- $Y \times (1 - c_y)/(1 - c_y) = (O + c_0)/(1 - c_y)$
- $Y \times (1 - c_y)/(1 - c_y) = (O + c_0)/(1 - c_y)$
- $Y = (O + c_0)/(1 - c_y)$
- And we are done: that is all that we need!
The Solution to Our Model

• $Y = (O + c_0)/(1 - c_y)$
  – Take the flow of “other spending”: net exports $NX$ plus business investment $I$ plus government purchases $G$
  – Add to that the amount of consumption spending that depends on “confidence” and like factors $c_0$
  – Divide by $1 - c_y$
  – You are done. That’s the level of spending—and incomes, and production—at which the economy is going to settle.
How Well Does This Work?

• Quite well
• Trained high-paid professionals do this...
• In the current recession
  – $Y = (O + c_0)/(1 – c_y)$
  – $c_y = 0.5$, $\Delta O = -$500B/yr
  – $\Delta Y = \Delta O/(1 – c_y)$
  – $\Delta Y = -$1T/yr
Test Your Knowledge

• Which early nineteenth-century classical economist—Malthus, Mill, or Say—changed his position on the possibility of “general gluts” over his life, and how did he change it?
• Why did that classical economist change his mind?
• What does break Say’s Law—why isn’t it the case that excess supply of some currently-produced goods and services always is offset by excess demand for some others?
• What kinds of financial excess demand produce “general gluts”—produce economic downturns and high unemployment rates?
• Why is it allowable for us to conclude that E, total expenditure, total economy-wide spending, is equal to Y, income and output?
• What is our equation for figuring out how much production and incomes Y will fall if there is a fall in either I, G, NX, or the “confidence” component of consumption spending c₀?