Economics Primer
Steven R. Van Hook, PhD

The World Economy in a Nutshell
What is Economics?

- The social science that deals with the production, distribution, and consumption of goods and services.
- Governs the allocation of scarce resources.
Two Important Terms …

- **Macroeconomics**: The study of the overall aspects and workings of a national economy, such as income and output.
  - How big is the pie?

- **Microeconomics** - The study of an economy's individuals and firms and how they make their decisions under various economic conditions.
  - How and who gets a piece of it?
Cows’ Guide to Economic Systems
You have two cows …

- **SOCIALISM** - you have two cows. The government takes them and puts them in a barn with everyone else's cows. The government gives you as much milk as you need.

- **COMMUNISM** - you have two cows. Your neighbors help you take care of them. You all share the milk.

- **CAPITALISM** - you have two cows. You sell one and buy a bull.

- **DICTATORSHIP** - you have two cows. The government takes both and shoots you.

- **SURREAL ANARCHY** - you have two giraffes. You choose to take harmonica lessons.
Three Wise Guys of Economics

- Adam Smith
- Karl Marx
- John Keynes
Adam Smith (1723-1790)

- “Father” of Classical Liberal Capitalism.
- “Individual ambition serves common good”
Adam Smith Says:

“ ld is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest. ... He intends only his own gain and he is in this led by an invisible hand to promote an end which was no part of his intention.”

An executive says ... 

“I’m not into competition ... I’m into eliminating the competition.”
Division of Labor

The Pencil Case Study of Milton Friedman
Karl Marx (1813-1883)

- The “Father of Communism” and the author of *Das Kapital*.

- “From each according to his abilities, to each according to his need.”
Marx says …

“The capitalist mode of production and accumulation, and therefore capitalist private property as well, have for their fundamental condition the annihilation of that private property which rests on the labor of the individual himself; in other words, the expropriation of the worker.”

An Editor says …

“Who is not a socialist at 20 has no heart; who is still a socialist at 40 has no brains.”
Marx v. Smith

Collectivism

“From each according to their ability; to each according to their need.”

Karl Marx 1813-1883

Individualism

“Individual ambition serves the common good.”

Adam Smith 1723-1790
John Nash (1928-)
“Nash’s Equilibrium” 27-page dissertation
Nobel Prize in Economics, 1994

A Beautiful Mind
By Sylvia Nasar
Universal Pictures 2001

"Adam Smith Was Wrong"
2:00
John Maynard Keynes (1883-1946)

- John Maynard Keynes, influential twentieth century British economist.
- Keynesian economics calls for adjusted levels of government spending to control economic cycles.
Keynes says …

- Making money is not an end in itself … What is wealth for?
- How much do we need for a good life?
- Needed for good life: (adjusted for 2012) $66,000 / €46,000 / £40,000
- The seven components of a good life:
  - Health, respect, security, personality, harmony with nature, friendship, leisure (Skidelsky & Skidelsky)
The Happiness Formula
According to British Researchers

$$\text{P} + 5\text{E} + 3\text{H}$$

- **P** = Personal Characteristics (outlook on life, adaptability and resilience)
- **E** = Existence (health, friendships and financial stability)
- **H** = Higher Order (self-esteem, expectations and ambitions)

- Women: Sunny weather, being with family, losing weight
- Men: Romance, sex, hobbies, sports victories

Reuters Report
Milton Friedman on Spending Money

- Spend your money on yourself
- Spend your money on other people
- Spend other people’s money on yourself
- Spend other people’s money on other people
Opportunity Costs

“The loss of the benefits that would have been received from the next best alternative whenever a choice is made. If you buy this, you can't buy that, even if that turns out to be a better deal.”

If you buy an Eminem CD, you can’t also buy an economics textbook.
It’s About Value

- Economic theory is about value, not money.
- “It’s not the money … it’s the stuff.” – The Jerk
- “Wealth is created when assets are moved from lower- to higher-valued uses.” – Luke Froeb
“In the history of the world, no one has ever washed a rented car.”

- Lawrence Summers, Economist & Former President, Harvard University

Future Harvard president Lawrence Summers in his 1975 Technique yearbook photo, and today.
The Price System

- The two-second foundation of classic economics:
  
  Supply and demand determine price.
Demand Curve
Supply Curve
Supply & Demand Equilibrium

[Graph showing supply and demand curves. The graph indicates that the right price makes supply and demand equal. At lower prices ($10.95 and $19.95), there is not enough supply. At higher prices ($29.95), there is not enough demand.]
New Diminished Supply
New Increased Demand
Equilibrium in the Long Run ...

- In the long run, the forces of supply and demand will create market equilibrium.
  – Adam Smith

- In the long run, we are all dead.
  – John Maynard Keynes
**IS-LM-BP Diagram**

**Y** National income and output  
**E** Exchange rate (domestic currency price of foreign currency)  
**i** Interest rate (real=nominal since prices are constant)  
**K** Exogenous capital inflow  
**IS** Goods market equilibrium (investment=savings)  
**G** Government spending  
**LM** Money market equilibrium (demand for money, L, equals supply)  
**M** Money supply  
**BP** Balance of payments (BOP) curve
Substitution

- One product may often be easily substituted for another: if the price of orange juice rises, a ready substitution is tomato juice, apple juice, vitamin C, etc.
- Readily substituted products may contribute to high elasticity of demand.
Elasticity of Demand

- **Elastic Product:** Small change in price leads to big change in demand (e.g., 10% increase in OJ decreases demand by 30%, as buyers use other substitutes).

- **Inelastic Product:** Large change in price leads to small change in demand (e.g., 30% increase in insulin costs decreases demand by only 5%, since there is no buyer substitute).
Elasticity Formula

\[
\frac{\% \text{ of change in demand}}{\% \text{ of change in price}} > 1 \text{ is Elastic}
\]

\[
\frac{\% \text{ of change in demand}}{\% \text{ of change in price}} = 1 \text{ is Unitary}
\]

\[
\frac{\% \text{ of change in demand}}{\% \text{ of change in price}} < 1 \text{ is Inelastic}
\]

- Percentages are universal regardless of currency and quantity measures
Elasticity of Supply

- **Cars are an elastic product:** supply from a 50% of capacity production line can be quickly expanded to 100% with a small jump in price.

- **Picasso paintings are inelastic:** no matter how large a jump in price, the supply of new products is zero.
Quiz: Good idea to change price?

Q: Does raising cigarette price decrease smoking?
A: Not much, since cigarettes are an inelastic product.

Q: Does raising concert ticket prices increase revenues?
A: Not always, since concerts are an elastic product with other entertainment substitutes.

Q: Does raising gas prices increase revenues?
A: Gas prices are inelastic in the short-run; but elastic in the long run as people buy more fuel efficient cars or use alternative travel.
Economy of Scale

- **Economy of Scale:** Reducing the average production cost by efficiently making more products at a lower per-item cost.

- **Marginal Cost:** The cost associated with one additional unit of production.
What is GDP? What is GNP?

- **GDP**: “The total value of all goods and services produced by the economy in the past year.”

- **GNP**: “A country's GDP plus international components including income from operations abroad.”
<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>European Union</td>
<td>$16.5 Trillion</td>
</tr>
<tr>
<td>2.</td>
<td>USA</td>
<td>$14.8 Trillion</td>
</tr>
<tr>
<td>3.</td>
<td>China</td>
<td>$5.4 Trillion (PPP)</td>
</tr>
<tr>
<td>4.</td>
<td>Japan</td>
<td>$5.3 Trillion</td>
</tr>
<tr>
<td>5.</td>
<td>Germany</td>
<td>$3.3 Trillion</td>
</tr>
<tr>
<td>6.</td>
<td>France</td>
<td>$2.7 Trillion</td>
</tr>
<tr>
<td>7.</td>
<td>UK</td>
<td>$2.2 Trillion</td>
</tr>
<tr>
<td>8.</td>
<td>Italy</td>
<td>$2.1 Trillion</td>
</tr>
<tr>
<td>9.</td>
<td>Brazil</td>
<td>$1.9 Trillion (PPP)</td>
</tr>
<tr>
<td>10.</td>
<td>Canada</td>
<td>$1.6 Trillion</td>
</tr>
<tr>
<td>11.</td>
<td>Russia</td>
<td>$1.5 Trillion (PPP)</td>
</tr>
<tr>
<td>12.</td>
<td>India</td>
<td>$1.4 Trillion (PPP)</td>
</tr>
</tbody>
</table>

California  | $1.9 Trillion
Mexico       | $996 Billion (PPP)
Los Angeles Area | $792 Billion
Data from Goldman Sachs [http://www2.goldmansachs.com/ideas/global-economic-outlook/expanding-middle.pdf]
What is Purchasing Power Parity?

- PPP looks at what money can actually buy in each country through the purchase of a basket of goods and services, including everything from housing, to haircuts, to food, to movie tickets – which gives us a “real world” exchange rate.
## Teacher’s Salary Adjusted for PPP

<table>
<thead>
<tr>
<th>Country (City)</th>
<th>Nominal</th>
<th>“Real”</th>
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<tbody>
<tr>
<td>Japan (Tokyo)</td>
<td>$47,900</td>
<td>$30,486</td>
</tr>
<tr>
<td>USA (LA)</td>
<td>$43,100</td>
<td>$43,100</td>
</tr>
<tr>
<td>Germany (Frankfurt)</td>
<td>$36,600</td>
<td>$42,783</td>
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<tr>
<td>Australia (Sydney)</td>
<td>$27,300</td>
<td>$34,347</td>
</tr>
<tr>
<td>Spain (Madrid)</td>
<td>$18,400</td>
<td>$29,533</td>
</tr>
<tr>
<td>China (Shanghai)</td>
<td>$2,900</td>
<td>$2,994</td>
</tr>
<tr>
<td>India (Mumbai)</td>
<td>$1,700</td>
<td>$4,055</td>
</tr>
<tr>
<td>Indonesia (Jakarta)</td>
<td>$900</td>
<td>$1,537</td>
</tr>
</tbody>
</table>
Comparative Advantage

**Comparative advantage:** The ability of a person, company, or country to produce a good or service at a lower cost (more efficiently) relative to other goods and services.
Ricardo’s Law of Comparative Advantage

(1772-1823)

You & I spend equal time writing papers and baking pies

<table>
<thead>
<tr>
<th></th>
<th>Papers</th>
<th>Pumpkin Pies</th>
<th>PPP Production</th>
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</thead>
<tbody>
<tr>
<td>You</td>
<td>10</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>Me</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>18 Total PPPs</td>
</tr>
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</table>

You spend your time writing papers / I spend my time baking pies

<table>
<thead>
<tr>
<th></th>
<th>Papers</th>
<th>Pumpkin Pies</th>
<th>PPP Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>You</td>
<td>20</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>Me</td>
<td>0</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>24 Total PPPs</td>
</tr>
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</table>
The Seven Biggest Economic Lies

Robert Reich

2:45
Zorg’s monologue about creative destruction is from “The Parable of the Broken Window” written by French economist Frederic Bastiat in 1850.

The full essay is called “Ce qu’on voit et ce qu’on ne voit pas” (“That Which Is Seen and That Which Is Not Seen”).

http://www.imdb.com/title/tt011916/trivia?ref_=tt_trv_trv