1 Definition of Economics

**Definition:** The *scientific* study of the *choices* made by individuals and societies in regard to the *alternative uses* of *scarce resources* which are employed to satisfy *wants*.

- Choice: can vs. do; how many choices do people have? A rich person versus a poor person.
- alternative uses: what else can we use something for?
- Scarcity of resources: In a static sense, the world's resources are fixed. Not so in a dynamic sense.
- What if resources were not scarce at all? or people had no desires and wants
• How societies decide to *allocate* these scarce resources is what economists study. The principles behind the decision making process.

• market economies vs. planned economies

• actions have consequences: More guns or butter? pay off national debt or international debt?
2 What is Macroeconomics?

- Microeconomics focuses on individual decision makers, like firms, persons, households, goods; each too small to affect national/aggregate outcomes.

- Questions like: why is Pepsi priced almost the same as Coke? why are prices of DVD players coming down?

- Macroeconomics is the study of the aggregate outcomes. Adding up individual outcomes?

- Why was the US labor market so tight in the late 90s? why are interest rates so low these days? why is Africa so poor?

- Birds eye view of whole economy at one go.
3 Why study macroeconomics?

• – because it is there!

  – the topics that macroeconomics studies affects our daily lives: unemployment (25% during the great depression), inflation (hyperinflations or even 15% inflation in the 80s), growth (we are 25 times better off than our grandparents generation)

  – knowledge of the macroeconomy will help one in making sound business decisions at the micro level.

  – macro and politics are closely wed: tax cuts or no tax cuts? spending on Medicare? read my lips: no new taxes
4 How do economists think about issues?

• *Scientific* study.

• Economists try to maintain objectivity (not always successfully) even though they study politically charged issues.

• It’s *not* a question of belief: do tax cuts create more jobs? will outsourcing hurt America?

• But there is a tension: human beings may/can not be all that objective; subjectivity, biases (first impressions matter, looks matter), people forget (prices), anger,...a theory for every Tom, Miguel, or Mao?
• Not a problem for the natural sciences: what is true for one block of ice is true of them all

• Economists create a strawperson, a fictitious character who behaves within certain reasonable bounds: rational (*Homo economicus*); a person who is *consistent* in her actions and takes those actions that make her happier than other competing actions.

• Economists **believe** that *Homo sapiens* $\equiv$ *Homo economicus*. 
5 The scientific method

• The scientific method:

  – start with a question: why do apples fall down and not go up? often questions are more important than answers

  – write down a model to study that question. Why does Pizza Pit charge $20 for two large cheese pizzas? answer to that can, in principle, depend on a million things

  * not all these are equally important explanations

  * not all factors can be measured

  * we have some sense of what are the most directly important factors
• model: a reasonably parsimonious description of the buyers of pizza, sellers of pizza, and the pizza market they interact in.

• test predictions; let data decide
• Not include too many things

\[ Q^d = D(P, Y) \]
\[ Q^S = S(P, P_m) \]

– demand for pizzas by pizza buyers depend on the price

– one reason they would care about price is their ability to buy it or their income

– similarly, pizza suppliers surely see the price at which they can sell their product when deciding how many pizzas to make

– it also matters to them what the price of flour and other materials like olive oil, \( P_m \), is.
What about the pizza market? equilibrating forces. Bringing the two opposing sides, supply and demand, into balance. \( Q^S = Q^d \)

- Model has exogenous and endogenous variables: those it tries to explain (endo) and those it takes as given (exo).

\[
Q^d = D(P, Y) = 60 - 10P + 2Y
\]

\[
Q^S = S(P, P_m) = 10 + 20P - 2P_m
\]

- \( Q^S = Q^d \) \(\Rightarrow\)

\[
P^* = \frac{50 + 2Y + 2P_m}{30}
\]

\[
Q^d = \frac{130}{3} + \frac{4}{3}Y - \frac{2P_m}{3}
\]

\[
Q^S = \frac{130}{3} + \frac{4}{3}Y - \frac{2P_m}{3}
\]
• Change $Y$ or $P_m$ at a time.

• Identification problems: a change in price could be due to shift in the supply or shift in the demand or both.

• Why all this math? we want to get precise answers.

• Does Pizza Pit really go through all this math to figure out what price to set? of course not.

• Positive versus Normative economics: value judgment.