Economics in an hour

An interactive course

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## Lecture 1 What is an economy?

Economics studies the generation and allocation of commercial resources. A commercial resource is anything that a person can use or own. Suppose that there were only three people in existence, Smith, Jones, and Brown. Smith grows crops, Brown builds huts and bridges, and Jones hunts. Smith, Jones, and Brown exchange the fruits of their labor, and this arrangement is stable. This is an economy.

## Quiz

True or false? If Smith, Jones and Brown each created products, but they refused to trade with one another or in any way benefit from one another's labors, they would jointly constitute an economy.

Answer: False

Explanation: There is no economy where there is no trade.

True or false? If Smith, Jones, and Brown each created products and they traded those products with one another, doing so regularly enough to become interdependent, they would jointly constitute an economy.

Answer: True

Explanation: There is an economy wherever there is a pattern of trade.

## Lecture 2 Economies in Relation to Currency

An economy is therefore any plurality of people who provide goods and services for one another. Sometimes currency is involved; sometimes it is not.

Currency is money. Money is a certificate of wealth that is not itself of any value. Dollar bills have no value in and of themselves. Their value is purely conventional in nature. But dollar bills can be used to buy food and cars and other valuables.

## Quiz

Which of the following statements is true?

1. If ten different people all love each other but they do not exchange goods and services with one another, they constitute an economy.
2. If ten different people all hate each other but they exchange goods and services with one another, they constitute an economy.
3. In order for there to be a working economy, there must be currency of some kind.
4. All property is stolen from our children and there are therefore no genuinely functional economies.
5. All of the above.

Answer: b

Explanation: Wherever people exchange goods and services, there is an economy. All other factors are irrelevant.

## Lecture 3 Efficiency and the Division of Labor

If you try to do everything yourself, you will work very hard and your standard of living will be very low. Suppose that you had to build your own lodging, grow your own crops, hunt for your own game, build your own farming and hunting equipment, and so on. How well would you live? Not well. How long would you live? Not long.

In order to live well, labor must be efficient. That means that a small amount of work must yield a large amount of value. "Value" is anything that is desired. The term has no moral connotations. Lodging has value. Clothing has value. If you like to play the piano, then pianos have value, at least for you.

In order for a small amount of work to yield a large amount of value, there must be division of labor. In other words, different people must do different things. Smith must hunt. Brown must grow crops. Jones must build houses. Green must build farming and hunting utensils. And so on.

Then they must exchange the fruits of their labor. Smith gives beef to Jones, and in exchange Jones builds a house for Smith. Brown gives potatoes to Green, and in exchange Green builds farming equipment for Brown. And so on.

The greater the division of labor, the more efficient the economy. We will develop this point in the next lecture.

## Quiz

Which of the following statements is true?

1. If you tried to take care of all of your own needs, your life would be easy and enjoyable.
2. In order to work at maximal efficiency, people must never interact with one another.
3. A working economy requires a complete lack of autonomy on the part of all of its members.
4. An efficient economy involves different people performing different tasks and then exchanging goods and services with one another.

Answer: d

Explanation: where there is no division of labor, work is prohibitively inefficient. And when labor is appropriately divided, work-loads are light and quality of life of high.

## Lecture 4. Economics Defined (revisited).

We have considered two different economic arrangements. In one of them, people do not cooperate. In the other, they do cooperate.

We have seen that the first does not work very well. An 'economy of one' is not a very efficient economy. A world of total 'do-it-your-selfers' is a world of people who work hard, live badly, and die young.

We have seen that when people work together, their work tends to be relatively efficient and they can live relatively well.

The discipline of economics is not interested in economies of one. Economics is only interested in economies that involve cooperation between different people.

But there are many different kinds of cooperative arrangements, and they differ dramatically from one another. Some of them work very well; others work very poorly.

Economics tries to answer the question: Which such arrangements work well, and which ones don't? In other words, which such arrangements generate and allocate resources efficiently and which ones don’t?

Thus, economics is the discipline that identifies the circumstances under which resources are generated and allocated with maximal efficiency.

## Quiz

Which of the following statements is true?

1. Economists would favor traditional gender relations even if they led to economic inefficiency.
2. Economists would favor democratic political systems even if they led to economic inefficiency.
3. Economists would favor democratic political systems only if they led to economic efficiency.
4. Without the use of fossil fuels and heavy industry, there cannot exist an economy.
5. None of the above.

Answer: c

Explanation: Economics is concerned with politics, including questions of political justice, only to the extent that they impact economic efficiency.

Corollary: economics often supplies otherwise empty propositions of ethics and politics with operational definitions that give empirical content to those propositions.

## Lecture 5 Currency

Goods and services can be exchange in one of two ways: directly or indirectly.

If I give you a boat in exchange for a car, you have directly exchanged a car for a boat.

If I give you money in exchange for a car and you then use that money to buy a boat, you have exchanged a car for a boat, but the exchange was indirect, since it involved the intermediary of money.

Money is anything that has little or no intrinsic value but that serves as a medium of exchange.

For the purposes of this course, the words ‘money’ and ‘currency’ are synonymous.

Historically, many things have functioned as money: bags of salt, pebbles, twigs, unstamped hunks of gold, and gold coins.

Even though some of these things, e.g. salt and twigs, may have some intrinsic value, they are not functioning as money unless their exchange-value exceeds their intrinsic value. The intrinsic value of a $100 bill is nil, as is that of a gold coin; but their exchange-values are high.

## Quiz

Which of the following statements is true?

1. Pebbles, bags of salt, etc. are functioning as money only if their exchange value equals their intrinsic value.
2. Pebbles, bags of salt, etc. are functioning as money only if their exchange value exceeds their intrinsic value.

Answer: b

Explanation: It is only if a thing’s intrinsic value is trivial compared to its value-in-exchange that it is functioning as money.

## Lecture 6 Barter vs. Monetary Exchanges

Direct exchanges are known as 'barter.' If I give you a boat for a car, you and I are bartering.

Bartering is fine in many contexts. But it has some limitations.

If Smith has a car and needs a boat and Jones has a boat and needs a car, it is unlikely that Smith's car will equal Jones' boat in value.

Also, if each of Smith and Jones has both shortages and surpluses, it is unlikely that what Jones has is what Smith needs or that what Smith has is what Jones needs, and it is doubly unlikely that what each has and is willing to give up is exactly what the other needs.

So barter either results in someone getting less for more or it requires that there are be an improbable 'double coincidence' of wants and needs between the parties involved. (This term is due to W.S. Jevons, who used it in his book Money as the Medium of Exchange.)

In general, what a given person has and needs is unlikely to align, either qualitatively or quantitatively, with another given person needs and has.

For this reason, it is impossible for economies of scale to develop without the use of currency. Suppose that Browns has a boat that Jones wants but that Jones does not have anything for which Brown would be willing to give up that boat. In that case, Jones can give Brown the corresponding amount of money in exchange for Brown’s boat, and Brown can use that money to acquire something that equals his boat in value. The money is simply a stand-in. It has no value in and of itself. But it has exchange-value, owing to the existence of a stable pattern of behavior involving people exchanging given quantities of that currency for given quantities of product or service.

## Quiz

Which of the following statements is true?

1. Inflation is not possible in a barter economy.
2. Inflation is possible in a barter economy.

Answer: a

Explanation: Inflation is when money is overvalued, and there is no money in a barter economy.

## Lecture 7 Surpluses necessary for scale

A surplus is when you have more of something than you need.

A shortage is when you don't have enough of something that you need.

In order for an economy to be efficient, it must have surpluses. Suppose that each person only has just enough food, just enough lumber, just enough lodging, just enough lamp-oil, etc. In this kind of economy, people wouldn't be able to trade with one another, since they couldn't part with anything without dying.

Now consider a different economy. In this economy, some people have extra food; other people don't have enough food, but they have extra medical supplies; some people have enough of both, but they don't have books or other things to keep them entertained; and so on. In this economy, it is possible for people to improve one another's lives by exchanging goods.

The first 'economy' is really only an economy in name only. Where margins are so thin that people have nothing to give, there is no trade and no real economy.

The second economy is a real economy. There are surpluses, so there can be trade.

In general, trade is possible when there are surpluses. Moreover, trade is possible to the extent that there are surpluses.

## Quiz

Which of the following statements is true?

1. Surpluses paralyze economic activity.
2. Surpluses are necessary for economic activity.
3. Both of the above.
4. Neither of the above.

Answer: b

Explanation: There are no economies without trade, and there is no trade without surpluses, since one only trades what one has a surplus of.

## Lecture 8 Different kinds of scale

An economy of scale is simply a large economy.

But there are different ways that an economy can be large.

It can be large in a purely quantitative sense. It can consist of large numbers of people, each of whom has tiny surpluses: an extra loaf of bread, a few minutes during the day when he doesn't have to working, maybe even a drawing that he can look at for aesthetic enjoyment.

If an economy of this kind consisted of one trillion people, it would technically be large. But it would not be a very good economy, and it is not what economists mean when they talk about an 'economy of scale.'

To see what they do mean, let us consider a different kind of economy.

This time imagine a society of one million people. Let us refer to this society as S.

Some people in S have a great deal of extra food and extra clothes. Others are struggling and at times may not even have enough to eat.

But even those who are barely getting by often have surpluses of one kind or another. For example, some of them may be very knowledgeable and may have information that will help other people grow crops or build houses; others have talents that could be sources of entertainment; and others have extra food but suffer from a paucity of entertainment or trade-related information.

Also, people in S are not locked into just one job. They can try their hand at different trades. They are allowed to switch jobs and they are also allowed to start their own businesses.

Consequently, S has a very fluid and dynamic labor market. When people with surpluses of one kind are suffering from shortages of some other kind, people in S who feel that they can address those shortages get to work. If people who have extra food find themselves needing winter coats, other people in S get to work and start making those coats and exchanging them for food.

This activity in its turn leads to more surpluses—and, as a result, to more shortages. People with winter coats can work in the winter, hunting and building houses. Those houses are exchanged but then need repairs. Because of all these new houses, S needs more contractors and plumbers than it currently has. So there is a shortage of such people. But this shortage is addressed: people learn these trades and ply them.

And the cycle continues.

## Quiz

Which of the following statements below is true?

1. An economy in which people are not allowed to change the nature of their work is likely to do a good job of addressing shortages.
2. An efficient economy is one in which people don't change the way they respond to problems, even though those methods don't work.
3. Economies of scale tend to result from efficiency, and efficiency tends to require a willingness to deal with problems in new ways.
4. None of the above.

Answer: c

Explanation: Efficiency involves adaptation.

## Lecture 9 Literacy as the basis of economies of scale

Writing was invented to keep records of supplies. Farmers who had extra grain used hash-marks to represent bushels of grain. If they had surpluses of other supplies, they used different symbols to represent them.

These records enabled those farmers to know what they needed to grow next season and also what they did not need to grow.

This increased efficiency, leading to more surpluses.

These different methods of record keeping converged into systems that were intelligible to large numbers of people.

These common systems of writing were then used to record transactions.

Initially, these systems of writing had but two uses: recording supplies and recording sales.

Once sales-transactions were recorded, writing could be used to write promissory notes. This began happening a few hundred years later.

In the meantime, systems of writing became generalized. At first, they were used to record quantities of grain. Then quantities of other supplies, such as shoes. And then quantities of quantities, such as numbers of collections of bushels of grain.

This last point is significant. One can understand the concept of three ducks or four apples without having any mathematical acumen. Indeed, one can grasp those concepts without being able to grasp number-concepts on their own terms: it is one thing to grasp a concept, such as *three ducks* or *three apples*,in which the number three is functioning adjectivally. It is a very different thing to grasp the number three *per se.* And it isn’t until one thinks in terms of *triples of triples* that one grasps the number three *per se*. If one thinks in terms of three ducks, or three boats, or three houses, one is still stuck in the realm of the observable; one hasn’t crossed the line that separates observation-based thought from abstract, distinctively mathematical thought. But one has crossed that line the moment one grasps the concept of three units of three; for it is then, and no sooner, that the number three becomes an object of consideration its own right, as opposed to a mere appendage to some other object. A non-mathematician can grasp the concept of five bushels of grain, but not of five groups of five bushels of grain. In general, a non-mathematician can grasp the concept of an n-tuple, but not of an n-tuple of n-tuples. Written records forced people to think in terms of n-tuples of n-tuples, thereby forcing them to cognitively isolate numbers and, on that basis, to engage in distinctively mathematical thought.

Relatedly, because writing is of its very nature abstract, it could not so much as exist without bringing mathematics into existence. A single hash-mark was used to represent one bushel; five hash-marks, five bushels; and so on.

It was immediately seen that one bushel plus one bushel equals two bushels. It was soon recognized that the same principles applied to other things: for example, that one house plus one house equals two houses. In other words, one of anything plus one of that same thing equals two of that thing. 1+1=2, in other words.

## Quiz

Question: Which of the following statements is true?

1. Good records help people use their time and energy more efficiently.
2. Good records make it hard for people to use their time and energy efficiently.
3. Neither of the above.

Answer: a

Explanation: Ignorance is inefficient, and records minimize ignorance.

## Lecture 10 Sales Records and Promissory Notes

These different methods of record keeping converged into systems that were intelligible to large numbers of people.

These common systems of writing were then used to record transactions.

At this point, they had two uses: recording supplies and recording sales.

Once sales-transactions were recorded, writing could be used to write promissory notes (IOU's). This began happening a few hundred years later.

## Quiz

True or false? Written records make it easier to keep track of who owes what to whom?

Answer: True

Explanation: None needed

True or false? Other things being equal, an economy functions more smoothly when it is known exactly who owes to what to whom?

Answer: True

Explanation: When it is known who owes what to whom, people don’t give their due and aren’t given their due, leading, for reasons now to be discussed, to a loss of confidence in the market and to a consequent unwillingness to invest in it.

## Lecture 11 Debt-instruments

Writing therefore made it easier for people to loan assets to others. If there are no written records of loans, debtors are likely to lie about what they owe and people will therefore unlikely to make loans. Not so if there are written records.

Consequently, people who needed capital (e.g. horses, food, clothes, tools, labor) but did not at present have anything to exchange for it could get loans.

Since people seek loans when they know of economic opportunities that they wish to capitalize on, this led to improvements in efficiency. People who knew of a new crop that people would want but that only they knew how to grow were able to do so, even if they did not at present have anything to give in exchange for the necessary supplies.

Capital is any asset that is used to generate anything of economic value.

## Quiz

Which of the following statements is true?

1. If no loans were made, there would be no debt and the economy would therefore function at peak efficiency.
2. Loans can stimulate economic development when they are made to people whose activities generate value.
3. All of the above
4. None of the above.

Answer: b

Explanation: Without loans, people with viable business ideas would have to spend that much more time accumulating start-up capital and that much less time creating their businesses.

Which of the following statements is true?

1. "Capital" refers only to currency.
2. "Capital" refers to assets that serve no economic purpose.
3. "Capital" refers to assets that are intended to serve an economic purpose.
4. "Capital" refers to machinery but not to livestock or land.
5. None of the above.

Answer: c

Explanation: None needed, as this is a definitional truth.

## Lecture 12 Mathematics as by-product of economies of scale

In the meantime, systems of became generalized. First it was to record quantities of grain. Then quantities of other supplies, such as shoes.

Also, because writing is of its very nature abstract, it could not so much as exist without bringing mathematics into existence. A single hash-mark was used to represent one bushel; five hash-marks, five bushels; and so on.

It was immediately seen that one bushel plus one bushel equals two bushels. It was soon recognized that the same principles applied to other things: for example, that one house plus one house equals two houses. In other words, one of anything plus one of that same thing equals two of that thing. 1+1=2, in other words.

## Quiz

Which of the following statements is true?

1. Because written symbols are so abstract, the existence of writing has had injurious effect on mathematical thought.
2. Because written symbols are so abstract, the existence of writing has had a positive effect on mathematical thought.

Answer: b

Explanation: mathematical thought concerns operations that tend to have no observable counterparts and it therefore involves the ability to use non-iconic symbols.

## Lecture 13 Interest and Investment

When people make loans, they do so for a price. That price is known as interest.

If I loan you $10 now, I do so only because I believe that in the future you will pay me back more than $10. That extra amount is the interest on the loan.

The same is true if I loan you my car. I do that only because you promise that you will let me stay at your vacation house next summer. That too is interest.

Investment is when assets are loaned to people who are expected to generate wealth and who for that reason are expected to return those loans plus interest.

## Quiz

Which of the following statements is true?

1. If I loan you money and do not charge interest, both of us benefit economically.
2. If I loan you money and do not charge interest, only you benefit economically, since I cannot possibly end up ahead in that situation.
3. Both of the above.
4. None of the above.

Answer. b. Explanation. If I loan money and do not charge interest, I lose the ability to use that money until you repay it and am not compensated for that loss.

## Lecture 14 Finance vs. Economics

Finance studies the circumstances under which enterprises are worth investing in and how to raise the funds needed to make the necessary investments. In other words, finance answer the following two questions: When should loans be made? And how can get the money needed to make those loans?

Economics answers the question: What kinds of social systems are most likely to make it possible for there to be anything worth investing in in the first place?

Economists ask questions like the following: If we tax imports, will that create wealth? If lower taxes on farmers, will that create wealth? If create for-profit prisons, will that make society wealthier?

Financiers don't ask these questions. Financiers don't get to work until there is extra capital to throw around. If that capital doesn't exist, there are no financiers. Once it does exist, they only direct towards existing concerns. If Jones comes to a financier Brown and asks for money, saying that he has a great business idea, and Smith also goes to Brown asking for money, also saying that he has a great business idea, Brown decides between Smith and Jones. He looks at their respective plans, credit histories, and the like.

If Brown is a highly cerebral financier, he may produce generalizations about what kinds of businesses are likely to yield what kinds of returns.

What Brown does not do is ask how society would have to be different in order to create investment opportunities. As a financier, Brown only cares about what is, not what could be.

The economist's job is to figure out how to tinker with society to create opportunities for the likes of Smith, Jones, and Brown.

## Quiz

What does a financier do?

1. Figure out how to make society more just.
2. Create goods and services without worrying about how to finance these activities.
3. Pick enterprises that he believes to be worth investing in and then loan them the money they need to operate.
4. None of the above.

Answer: c

Explanation: None needed, as it is a definitional truth.

## Final Exam

Instructions: This is your final exam. You must pass with a 80% or higher to pass the class. You are only allowed one attempt. You must pass Economics 1 to take Economics 2. Good luck!

Question 1

Which of the following statements is true?

1. People work more efficiently if they try to do everything themselves.
2. People should be forcibly restrained from working too hard since independent work is inefficient and psychologically unhealthy.
3. People should not be allowed to change jobs or modes of employment since it leads to confusion and poverty.
4. A rigid and inflexible labor market is not likely to be as efficient as a flexible and adaptive labor market.

Answer: d

Explanation: Rigid economies don’t work.

Question 2

Which of the following statements is true?

1. The existence of written records discourages investment.
2. The existence of written records tends to make labor more efficient.
3. Both of the above.
4. Neither of the above.

Answer: b

Explanation: Efficiency requires knowledge, which tends to require records.

Question 3

Which of the following statements is true?

1. The existence of written records discourages investment.
2. The existence of written records tends to make labor more efficient.
3. Both of the above.
4. None of the above.

Answer:

Explanation:

Question 4

Which of the following statements is true?

1. A financier is someone who borrows money from others in order to manufacture equipment or other tangibles.
2. A financier is someone who loans capital to others in order to help launch or sustain economic enterprises.
3. Both of the above.
4. None of the above.

Answer: b

Explanation: Financiers invest, meaning that they give money to launch or run businesses.

Question 5

True or false? The disciplines of finance and economics are identical.

1. True
2. False

Answer: b

Explanation: Economics studies the creation and distribution of wealth; finance studies how to identify and capitalize investment-grade businesses.

Question 6

Which of the following statements is true?

1. In an efficient economy, nothing is created that isn't immediately consumed.
2. In an efficient economy, surpluses are created but not used to eliminate shortages.
3. An efficient economy, surpluses are created and then used to eliminate shortages.
4. All of the above
5. None of the above

Answer: c

Explanation: An efficient economy creates more than it needs but promptly reinvests excesses, instead of letting idle.

Question 7

True or false? As a general rule, rigid labor markets lead to innovation and prosperity

1. True
2. False

Answer: b

Explanation: Rigid labor markets are the kiss of macroeconomic death.

Discussion: Sometimes rigid labor markets are a consequence of too much government, and sometimes they are consequence of too little government. So the relevant question is ‘how much freedom is there?’, not ‘how much freedom from *government* is there?’

Question 8

Which of the following statements is true?

1. Investment is identical with gambling.
2. Investment involves giving people access to capital for which they are not at present able to pay.
3. Both of the above.
4. Neither of the above.

Answer: b

Explanation: Definitional truth, no explanation necessary.

Question 8

Which of the following statements is true?

1. The best way to deal the evils of inflation is to return to a barter-economy.
2. There cannot be inflation in a barter-economy, but inflation is generally a small price to pay for the benefits of currency.
3. Neither of the above.

Answer: b

Explanation: There would be no inflation in a barter economy, but life would be grim.

Question 9

True or false? A high degree of division of labor correlates with economic efficiency and a low degree with economic inefficiency.

1. True
2. False

Answer: a

Explanation: More division of labor equals more efficiency equals more scale.