

Lecture 17

17. Introduction to Microeconomics

Choice, Scarcity, and Exchange

WHAT YOU WILL LEARN

By the time you finish this lecture, you should be able to:

1. Explain what the “economic problem” is.
2. Explain the notion of “opportunity cost.”
3. Determine what information we need to acquire and disseminate in order for a market economy based on private property to successfully function as a societal calculating mechanism for planning and organizing production and distribution.
4. Determine what information we need to acquire and disseminate in order for an alternative—for, say, a centrally-planned command bureaucratic economy—to successfully function as a societal calculating mechanism for planning and organizing production and distribution. to function?
5. Explain the magnitude of the extraordinary informational advantages offered by the market system as a societal calculating mechanism.
6. Link these informational advantages to the empirical success of market economics vis-a-vis alternatives.
7. Explain the questions we should ask in order to evaluate any societal social calculating mechanism for planning and organizing production and distribution.

RECAPITULATION

Last time we finished up our study of economic growth—both in the very long run and in the run since the coming of the Industrial Revolution around 1800 or so.

We have an 18-fold increase in global technology since 1800—a 72-fold increase since 8000 BC.

Of that, we can attribute maybe five-fold to the market economy—or, at least, that is what a look at the High Stalinist “natural experiment” of central planning in the twentieth century tells us.

Karl Marx, you see, thought that market economies were simply devices to mask and obscure the extraction of surplus value from the workers by the ruling class. Under ancient slavery, Marx said, it was clear how the rich got their wealth: they owned the poor as slaves, took what the slaves made, and beat or killed them if they resisted. Under medieval serfdom, Marx said, it was clear how the rich got their wealth: the knights kept the poor tied to the land they farmed, and demanded feudal tithes and corvee labor in return for “protecting” them against other knights.

Under market capitalism, Marx said, it looks as though everybody is equal, and that every contract and economic agreement is voluntary. But when some—the capitalists—are very rich and the workers are very poor, the bargains that they will strike will be as unequal and as oppressive

as ancient slavery and medieval feudalism. It is actually not equal at all. Equality under the law—equal rights to make bargains and contracts—is a cruel deception.

Much better, Marx said, to abolish private ownership of the means of production and market exchange. Much better, Marx said, to have everything administered fairly according to a common plan. Then you won't need an oppressive government to protect the property and rank of the rich from the poor, and so the state will "wither away." And the narrow horizons of bourgeois private-property definitions of "justice" will be crossed: we will no longer say that goods should be allocated according to fair and mutually-agreed on bargains, but rather instead:

society will inscribe on its banners: "From each according to their ability, to each according to their need!"

How well did this work?

How well did eliminating markets on the grounds that Marx was suspicious that they were merely obfuscating surplus extraction devices do?

We had a 20th century "natural experiment" involving nearly two billion people—most of them experimented on involuntarily. And so now we see.

How Much Does Market Organization Matter?

East-Block Country	GDP per Capita	Matched West-Block Country	GDP per Capita	Percentage Gap
N. Korea	\$700	S. Korea	\$7,660	91%
China	\$490	Taiwan	\$9,500	95%
Vietnam	\$170	Philippines	\$850	80%
Cambodia	\$150	Thailand	\$2,110	93%
Georgia	\$580	Turkey	\$2,970	80%
Russia	\$2,340	Finland	\$19,300	88%
Bulgaria	\$1,140	Greece	\$7,390	85%
Yugoslavia	\$3,240	Italy	\$19,840	84%
Hungary	\$3,350	Austria	\$23,510	86%
Czech Republic	\$2,710	Germany	\$23,560	88%
Poland	\$2,260	Sweden	\$24,740	91%
Cuba	\$460	Mexico	\$3,610	88%
Geometric Mean:	\$930		\$8,030	88%

The Communists abolished the market economy. They replaced it with a generalized version of the Rathenau-Ludendorff World War I Imperial German war command economy. They tried to take as much advantage as possible of economies of scale—to be sure that production was coordinated so that machines did not stand idle but were instead used on the widest possible scale. They devoted immense material resources to organizing

five-year plans for industrial development to try to rationalize production. They devoted immense resources to trying to root out corruption and "wrecking"—sending millions of people to labor camps or to their deaths or both for economic sabotage in order to raise productivity.

And when all was said and done, they found that their economies were less than 20% as productive as those of the market economies on the other side of the Iron Curtain.

And that five-fold productivity gap almost surely understates the true gap. Communist economies copied a lot of technology from the market economies of the North Atlantic and gave back little. Market economies appeared superior not just in static productive efficiency but in dynamic invention, innovation, and technological progress as well.

And, of course, societies in which personal freedom was limited and millions lived or died by the whims of paranoid dictators were even less attractive in total than their relative economic performance alone would indicate. Market economies, with protections of private property and thus alternative centers of power to the government, have proved to be necessary even if not sufficient preconditions for personal liberty and for safety from arbitrary execution.

But let's take the five-fold edge in productive efficiency of market over command economies as our starting point. How are we to understand this enormous edge of market over command?

THE ECONOMIC PROBLEM

We do not have the power and the resources to make everything that we might want. That by itself does not create a problem. Where there is no scarcity—or where we don't care that there is scarcity—there is no problem, no “economic problem.” So we cannot make everything. Who cares if we have enough of what we want and don't value what we cannot make?

The answer is: “nobody.” Nobody would care. There would not be an economic problem.

The question of where the economic problem came from puzzled the early economists. Why, they asked, did air and water (remember: unlike in California, fresh water is incredibly plentiful all year around in the northwest European original heartland of economics), which were necessities for human life have no economic value on the market? Why did diamonds and gold—which nobody could eat, after all—have immense value?

Indeed, we can imagine societies in which there is no economic problem. If we were to move to the Anarres of Ursula K. LeGuin's Nobel Prize-winning science fiction novel *The Dispossessed: An Ambiguous Utopia*, we would find that on Anarres diamonds and gold had no value whatsoever either. Why not? Because on Anarres people had been trained from birth to reject all desires for more than a Spartan existence as “propertarian,” and thus illegitimate. (The Spartans did get there first: although it is interesting to note that I cannot recall a single example in the ancient literature of an attempt to bribe a Spartan commander that failed.) Whether and in what sense the inhabitants of Anarres are “free” or “happy” is left by Ursula K. LeGuin as an exercise for her readers.

John Maynard Keynes, in a talk he gave eighty years ago, thought that by now we would have solved the economic problem. That we would have more than enough of pretty much anything

The Economic Problem

- Stuff:
 - What...
 - How...
 - For whom...
- We can't make everything
- Where there is no scarcity—or where we don't care that there is scarcity—there is no economic problem
- Where there is, and where we care, there is an economic problem:
 - Ursula K. LeGuin: *Urras and Anarres*
 - Jan Wenner vs. Paul Allen



that we wanted, and that getting-and-spending and planning-and-economizing would be a relatively small part of our lives:

[I]n the long run... mankind is solving its economic problem.... [T]he standard of life in progressive countries one hundred years hence will be between four and eight times as high as it is to-day... Now it is true that the needs of human beings may seem to be insatiable. But they fall into two classes --those needs which are absolute in the sense that we feel them whatever the situation of our fellow human beings may be, and those which are relative in the sense that we feel them only if their satisfaction lifts us above, makes us feel superior to, our fellows. Needs of the second class... may indeed be insatiable.... But this is not so true of the absolute needs-a point may soon be reached, much sooner perhaps than we are all of us aware of, when these needs are satisfied in the sense that we prefer to devote our further energies to non-economic purposes.... [T]he economic problem may be solved, or be at least within sight of solution, within a hundred years. This means that the economic problem is not-if we look into the future-the permanent problem of the human race....

Will this be a benefit? If one believes at all in the real values of life, the prospect at least opens up the possibility of benefit.... The strenuous purposeful money-makers may carry all of us along with them into the lap of economic abundance. But it will be those people, who can keep alive, and cultivate into a fuller perfection, the art of life itself and do not sell themselves for the means of life, who will be able to enjoy the abundance when it comes.

Yet there is no country and no people, I think, who can look forward to the age of leisure and of abundance without a dread. For we have been trained too long to strive and not to enjoy....

There are changes in other spheres too which we must expect to come. When the accumulation of wealth is no longer of high social importance, there will be great changes in the code of morals. We shall be able to rid ourselves of many of the pseudo-moral principles which have hag-ridden us for two hundred years, by which we have exalted some of the most distasteful of human qualities into the position of the highest virtues. We shall be able to afford to dare to assess the money-motive at its true value. The love of money as a possession -as distinguished from the love of money as a means to the enjoyments and realities of life -will be recognised for what it is, a somewhat disgusting morbidity, one of those semicriminal, semi-pathological propensities which one hands over with a shudder to the specialists in mental disease. All kinds of social customs and economic practices, affecting the distribution of wealth and of economic rewards and penalties, which we now maintain at all costs, however distasteful and unjust they may be in themselves, because they are tremendously useful in promoting the accumulation of capital, we shall then be free, at last, to discard...

Although, he said, that utopia was not for his day or indeed for the next generation:

But beware! The time for all this is not yet. For at least another hundred years we must pretend to ourselves and to every one that fair is foul and foul is fair; for foul is useful and fair is not. Avarice and usury and precaution must be our gods for a little longer still. For only they can lead us out of the tunnel of economic necessity into daylight.

How does Keynes's prediction look today? Not well. We are vastly richer than people were in 1930. But the economic problem is still very much with us. You remember Jann Wenner, the founder of *Rolling Stone*?

I had a fascinating conversation recently with Jann Wenner, the founder of Rolling Stone. Here's a guy who's probably got three or four hundred million dollars--he's got a Gulfstream II and a house here and a house there, and you can't imagine what trappings he could want from the next level. But he's got this gleam in his eye because he's telling me about how he spent the weekend with Paul Allen. He said that Paul Allen didn't have a GII, he had two 757s. They flew over to, like, Nice, and then they got into Paul's helicopter, which took them to Paul's boat, which stays sort of off the coast of southern France. And I could tell that Jann was picturing himself at the next level--the multi-billionaire. And I was fascinated by that because, holy shit, if that's not enough for Jann, why do I think I'm going to be able to get off the conveyor belt?

I think that when we do get off of the conveyor belt, we simply don't notice it—we take what we have for granted, and focus our attention on what we do not have. There are four categories, after all: things not worth mentioning, necessities, conveniences, and luxuries. Over time necessities become things not worth mentioning—the idea that an American today would not have enough calories is as foreign to us as the idea that there might not be enough air was foreign to our ancestors five hundred years ago. Over time conveniences become necessities. Over time luxuries become conveniences. And over time we invent new luxuries to aspire to, and to work hard to attain.

Thus most of the time most of what we produce is both scarce and desired. After all, if it is not scarce why should any of us spend any of our limited work-time making more of it? And if it is not desired why would any of us spend any more of our limited work-time making more of it? Almost by definition, therefore, most of our work-time and most of our attention will be focused on commodities for which there is an “economic problem”: that some of us at least would like to have more of them, and yet there is not enough for everybody to have all that they want.

What Do We Care About?

- We care about choices between things we value
- “Opportunity cost”
 - What is the “opportunity cost” of attending Cal?
 - Cash cost plus foregone wages plus foregone valuable experience plus tied to Berkeley plus not a boring job...
 - What is the “opportunity cost” of drinking a cup of coffee?
 - You can't spend the time and money taking yoga lessons



The fact of scarcity almost immediately induces another fact: the fact of necessary choices. To take resources and use them to produce more of one scarce and valued commodity is necessarily not to use them to produce some other commodity—also scarce and also valued. Thus everything has a cost: the “opportunity cost” of what the resources used for it could have been used for had they been devoted to some alternative.

You all are spending four—well, perhaps 4 1/2, given the university's reaction to the state fiscal crisis and the difficulty in getting into what courses you want when you need to take them—years here at Berkeley. What is the “opportunity cost” of attending Cal? The \$10K a year in tuition and fees is a small part of it. The big part of it is the money you are not making at the full-time

job you would be likely to have were you not at Berkeley. When there is scarcity, there are always choices to be made. And to choose one path is to forego others—maybe not for you so much as for other people, who cannot use for their own purposes the resources you consume.

SCARCITY AND CHOICE IN A MARKET ECONOMY

So now let's see how a market economy handles scarcity and choice. And let us do so by doing what economists often do—by setting up a simple, toy economy in which the factors we want to analyze are crystal clear.

Dharma and Greg

Remember the 1990s sitcom “Dharma and Greg”? Dharma is loose and mellow and California. Greg is uptight. Let us say that Greg is very good at making coffee: in a shift he can make, say, 10 absolutely perfect cups of coffee—double half-caf lattes made half skinny and half with half-and-half. Greg, however, is inept at yoga. He can teach or do one lesson max in a shift, with the book at his elbow, trying to get things right.

Dharma, by contrast, burns the beans and spills the milk and forgets to fill the espresso pods. She can only make two cups of coffee a shift. But at yoga she is a champ: able to teach or do five lessons in a shift.

Autarky

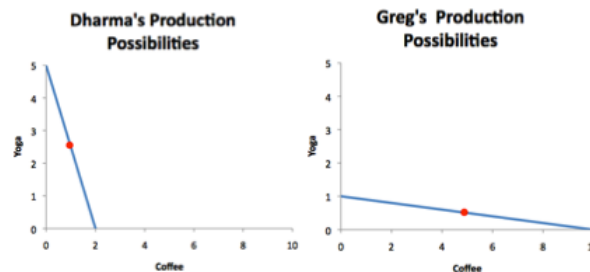
If Dharma and Greg were each on their own, their respective lifestyles would not be so lavish. Greg could spend all of his time brewing coffee—making ten cups a shift—or all of his time doing yoga—completing one lesson per shift. Or he could be somewhere in the middle. Let us follow Aristotle, say that the best choice is moderation in all things, and say that Greg splits his time: he spends half his time making cups of coffee and half his time trying to do yoga, and in a shift he completes five cups of coffee (which he drinks), and about half a yoga session.

Scarcity and Choice in a Multi-Person Economy

- Dharma and Greg
 - Greg is good at making coffee—can make, say, 10 cups a day
 - But inept at yoga—one lesson a day max
 - Dharma is good at doing (and teaching) yoga—can teach 5 lessons a day
 - But can only make two cups of coffee

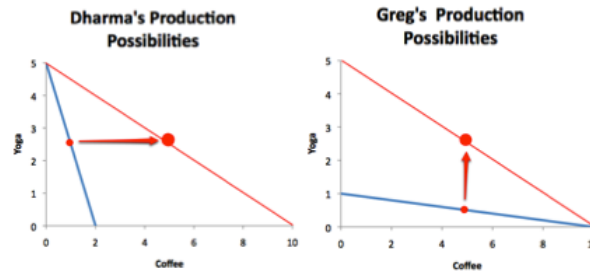


Greg and Dharma in Autarky



Similarly, Dharma on her own could spend all of her time brewing coffee—making two cups a shift—or all of her time doing yoga—completing five lessons per shift. Or she could be somewhere in the middle. Let us follow Aristotle, say that the best choice is moderation in all things, and say that Dharma splits her time: spends half time making cups of coffee and half time doing yoga, and in a shift completes one cup of coffee (which she drinks), and about 2 ½ yoga sessions.

A Market with cu2 Yoga Lessons!



The Market Economy

Now let us set up a market system to serve as a societal calculation mechanism for planning and organizing production and distribution. A guy walks out and tells Dharma and Greg: “You own the products of your work, but if you want to and if you both agree you can each trade the products of your work to the other at a price I will write down.” And he sets up a big whiteboard on an easel and writes:

$$1 \text{ y} = \text{cu}2$$

One yoga lesson trades for two cups of coffee.

Now what happens. Dharma thinks: “Hmmm. Suppose I spend all my shift time doing or teaching yoga. I could teach Greg yoga half time, and do yoga myself half time. That still gives me my 2 ½ yoga sessions, and Greg will pay my five cups of coffee for teaching him yoga lessons. That makes me a lot better off—or at least a lot more caffeinated.”

Similarly, Greg thinks: “Hmmm. Suppose I spend all my shift time making cups of coffee. I could trade half my coffee to Dharma, and consume the other half. That still gives me my 5 cups of coffee. And with Dharma teaching me I will get through about 2 ½ yoga lessons for each shift that I work. That makes me a lot better off—or at least a lot more likely to attain inner peace.”

What the Market System Gets Us

- Win-win
 - Dharma benefits as long as the price of yoga lessons > cu0.40
 - Greg benefits as long as the price of yoga lessons < cu10
- Wealth Maximization
 - Any price between cu0.40 and cu10 produces an “wealth-maximizing production outcome
 - Any price between cu0.40 and cu10 produces an efficient allocative outcome
 - Any price outside the range shuts the market—and specialization—down
- Distribution:
 - A price of cu10 gives all the surplus to Dharma
 - A price of cu0.40 gives all the surplus to Greg
 - A price of cu2 makes them equally well off
 - Or does it?



Thus, they both think, the market system is a win-win arrangement. Dharma benefits as long as the price of yoga lessons $> cu0.40$. Greg benefits as long as the price of yoga lessons $< cu10$. At any price between $cu0.40$ and $cu10$ there is an incentive for each to specialize their production in what he or she does best—we will have a wealth-maximizing outcome.

There are issues of distribution.

If the guy with the whiteboard writes down a price of $cu10$ for each yoga lesson that gives all the surplus to Dharma: Greg does not benefit from the opening of the marketplace. Similarly, a price of $cu0.40$ for each yoga lesson gives all the surplus to Greg. A price of $cu2$ makes them equally well off—each multiplies the consumption of the commodity they are inept at producing by five while leaving their consumption of the commodity they are good at making unchanged. Each of their production is worth 10 cups of coffee. Or does it leave them equally well off? Maybe Dharma can teach yoga but doesn't like to, while Greg finds the highest expression of his species-being in the making of cups of coffee and winds up much happier.

Information

The thing to notice is how easy all this was. You need a guy with a whiteboard to announce that what you make is your own until you agree to trade it away. You need, somewhere in the background, a police officer who can throw Dharma in jail if she simply steals cups of coffee. You needed the guy to write $1\text{ yl} = cu2$ on the whiteboard. (Or did you? More on that later, in the next lecture.) But that was it. You did not need to program a computer to decide on the optimal allocation of labor—Dharma took a look at her latte-making skills and figured out she should specialize in teaching yoga, and Greg tried unsuccessfully to get his heels to the floor while doing the downward-facing dog and decide to specialize in making coffee, and they did this all by themselves. You did not need to send around PDC—Production and Distribution Coordination agents—to make sure that people were following the plan, for their own self-interest ensured that they would follow their respective plans. And you did not need to have a bunch of clerks in a warehouse keeping track of whether people had overfulfilled their plan allotments and figuring out which commodities should go into whose ration sacks for distribution: they figured out themselves what they wanted to trade for.

Let me say that again: in order to coordinate production and distribution in an economy with N commodities via the market, you have to:

1. Find a whiteboard

In Order to Coordinate...

- ...in an economy with N commodities via the market, you have to...
 - 1. Find a whiteboard
 - 2. Write down N prices
 - 3. *Laissez-faire*
 - 4. Maybe you don't have to write down the prices



2. Write down “the stuff you make is yours until and unless you trade it away at the market price” on the whiteboard
3. Write down N market prices—one for each commodity—on the whiteboard
4. *Laissez-faire*—let people do what they thought best
5. And maybe you don’t have to write down the prices

By contrast, if we had a centrally-planned command-bureaucratic economy, we would have have to:

1. Figure out what everybody should do.
2. Tell everybody what to do
3. Figure out what everybody should consume
4. Tell everybody what they are going to consume
5. Check up on everybody to make sure that everybody is producing what they are supposed to be producing—and working hard at it
6. Check up on everybody to make sure that everybody is consuming what they are supposed to be consuming.

With a toy economy with only two people in it—Dharma and Greg—these information differences are trivial, unimportant. But the real U.S. economy has 140 million workers and more than 100,000 different commodities. And the real global economy has 2 billion workers outside the home and some 150,000 different commodities, even not counting the fact that commodities play different social roles in different places.

It is this economizing on information that is, I think, at the heart of the five-fold difference in efficiency between planned and market economies. A huge chunk of time and energy in planned economies is spent moving information that is already well-known at the periphery of the society to the center. And a huge chunk of information that needs to be collected in order for central planners to make good decisions is not collected—and then bad decisions are made.

In Order to Coordinate...

- ...in an economy with N commodities via a bureaucratic command-and-control hierarchy, you have to...
 - 1. Tell everybody what to do
 - 2. Tell everybody what they are going to consume
 - 3. Check up to make sure everybody is doing what they are supposed to be doing



How Important Are These Informational Differences?

- With two people—Dharma and Greg—these information differences may not seem that important
- But with 140 million workers and with 100,000 different commodities?
- What if it is more productive to do pieces of the division of labor via bureaucratic command-and-control?
 - Then the market provides incentives to create such islands within itself—that is what big businesses are



The system of private property and market exchange has two enormous advantages over central planning. First, private property pushes decision-making out to the periphery of society, where the “owners” of commodities already have the best information as to what the commodities should be used for. Second, market exchange provides people with the right incentives—an incentive to work diligently, and not to consume wastefully. By contrast a command economy has to spend an enormous amount of labor trying to make sure that people are not shirking on the job or wasting on the consumption side.

But what if these advantages in information of a market economy are not, in some particular situation, larger than the advantages of centralized planned coordination. What if it is more productive to do some pieces of the division of labor via bureaucratic command-and-control? Then the market provides incentives to create such islands within itself—that is what big businesses are. Toyota needs a front axle and a back axle for each car it hopes to sell, and it plans production so that front- and back-axle production are in synch: it doesn’t go out and buy front and back axles in a market. Where it is productive to create islands of command-and-control central planning, it will almost surely be profitable to create such islands. The market economy thus creates incentives for people to bypass it wherever they think it is likely to do a sub-optimal job.

And, of course, that we live in a market economy does not mean that everything has to be done via the market. We have a government. We can use it. The late Paul Samuelson used to like to say that it was much better to characterize our economy as a mixed economy rather than a market one.

EVALUATING SOCIETAL CALCULATING MECHANISMS

In general, the market economy ranks rather highly along all the dimensions one might use to evaluate societal systems for planning and organizing production and distribution.

First, a system should produce a plan, an allocation, that is attainable. China’s central planning system during the Great Leap Forward produced a plan that was not attainable, and more than fifty million people died of starvation as a result. Many more would have died had not PLA Marshall Peng Dehuai stood up at the Lu Mountain plenary meeting of the Chinese Communist Party and said that this must

be stopped. That was not good for his career in Maoist China—he had very strong incentives indeed not to do so. But he did nevertheless, thinking his righteous duty as a servant of the people was more important than his career, his lifestyle, his liberty, or indeed eventually his life. All honor to PLA Marshall Peng Dehuai, whose actions may have saved the lives of as many people as the

Questions to Ask of Any Societal Calculating Mechanism

- Is it attainable?
 - i.e., China during the Great Leap Forward not attainable
- Will the right people be making the right things?
- Will anybody say “I don’t want that, I want this instead”?
- Will it be *fair*?
 - The cu0.40 price allocation might be Pareto-optimal
 - Dharma teaches yoga
 - Dharma consumes 2.5 yoga and 1 cup of coffee—and at a price of cu0.4 doesn’t want to teach any more or less for any more or less coffee
 - Greg consumes 2.5 yoga and 9 cups of coffee—if he doesn’t like yoga that much, he might not want to take any more yoga lessons even at a price of cu0.4
 - But it doesn’t seem *fair*, does it?
- That is what we will look at next time...



actions of Adolf Hitler killed. But we cannot rely on there being a large number of brave self-sacrificing servants of the people to keep the system on the rails.

A market system does well, most of the time, in setting out an attainable plan.

Second, will the right people be making the right things? As we saw, the market does well on that: Greg and Dharma are both deployed in the labor force in places where they will be most productive.

Third, will anybody say “I don’t want that, I want this instead”? Well, in a market economy if people wanted to trade some of what they are consuming away for something else, they could do so. The fact that they haven’t strongly suggests that they don’t. There is the question of whether some people will wind up having much more than others. And that leads us to the fourth dimension:

Fourth, will the consumption allocation be fair?

That, however, is not something the market is set up to provide. Attainability, productive efficiency, and allocative efficiency—yes. Fairness? Much more doubtful.

But was Mao’s China or Stalin’s Soviet Union fairer? Is Castro’s Cuba or Kim John II’s North Korea fairer?

SUMMARY

We have an 18-fold increase in global technology since 1800—a 72-fold increase since 8000 BC. Of that, we can attribute maybe five-fold to the market economy. How are we to understand this enormous edge of market over command?

A market is superior at handling scarcity. And there will always be scarcity. We are constructed so that as technology advances necessities become things not worth mentioning, conveniences become necessities, luxuries become conveniences, and we invent new luxuries to aspire to, and to work hard to attain. Thus most of the time most of what we produce is both scarce and desired. That entails the fact of necessary choices, of “opportunity costs.” And that is something a market economy is very good at handling.

A market system partly overcomes scarcity by inducing a win-win specialization of production into an efficient pattern. And it partially overcomes scarcity by allowing people to choose the consumption goods they would most like to see. However, the main benefit of a market economy thing is that it doesn’t require much work at the center for it to run.

It is this economizing on information that is, I think, at the heart of the five-fold difference in efficiency between planned and market economies. A huge chunk of time and energy in planned economies is spent moving information that is already well-known at the periphery of the society

to the center. And a huge chunk of information that needs to be collected in order for central planners to make good decisions is not collected—and then bad decisions are made.

The system of private property and market exchange has two enormous advantages: private property pushes decision-making out to the periphery where owners have the best information, and market exchange provides people with an incentive to work diligently and not to consume wastefully. What if it is more productive to do some pieces of the division of labor via bureaucratic command-and-control? Then the market provides incentives to create such islands within itself—that is what big businesses are. And, of course, that we live in a market economy does not mean that everything has to be done via the market. We have a government. We can use it.

In general, the market economy ranks rather highly along all the dimensions one might use to evaluate societal systems for planning and organizing production and distribution except for fairness: that is not something the market is set up to provide. Attainability, productive efficiency, and allocative efficiency—yes. Fairness? Much more doubtful.

TEST YOUR KNOWLEDGE

1. What is the “economic problem”?
2. What is “opportunity cost”?
3. What information do we need to disseminate in order for a market economy to function?
4. What information do we need to acquire and process in order for a centrally-planned bureaucratic economy to function?
5. What are the questions we should ask of any societal social calculating mechanism?