The method and scope of economics

Economics for Everyone, Block 1

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Lecture 1

Objectives for this block of classes

as listed in the course outline

1. A definition of the subject.
2. Economic methods and models.
3. The two "great" questions: how a society generates a surplus, how that surplus is distributed.

1. Positive versus Normative economics.
2. Some core concepts and pitfalls: marginal reasoning, scarcity, opportunity costs.
3. Comparative advantage and the gains from trade.

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A "silly" problem: Miles needs a cappuccino

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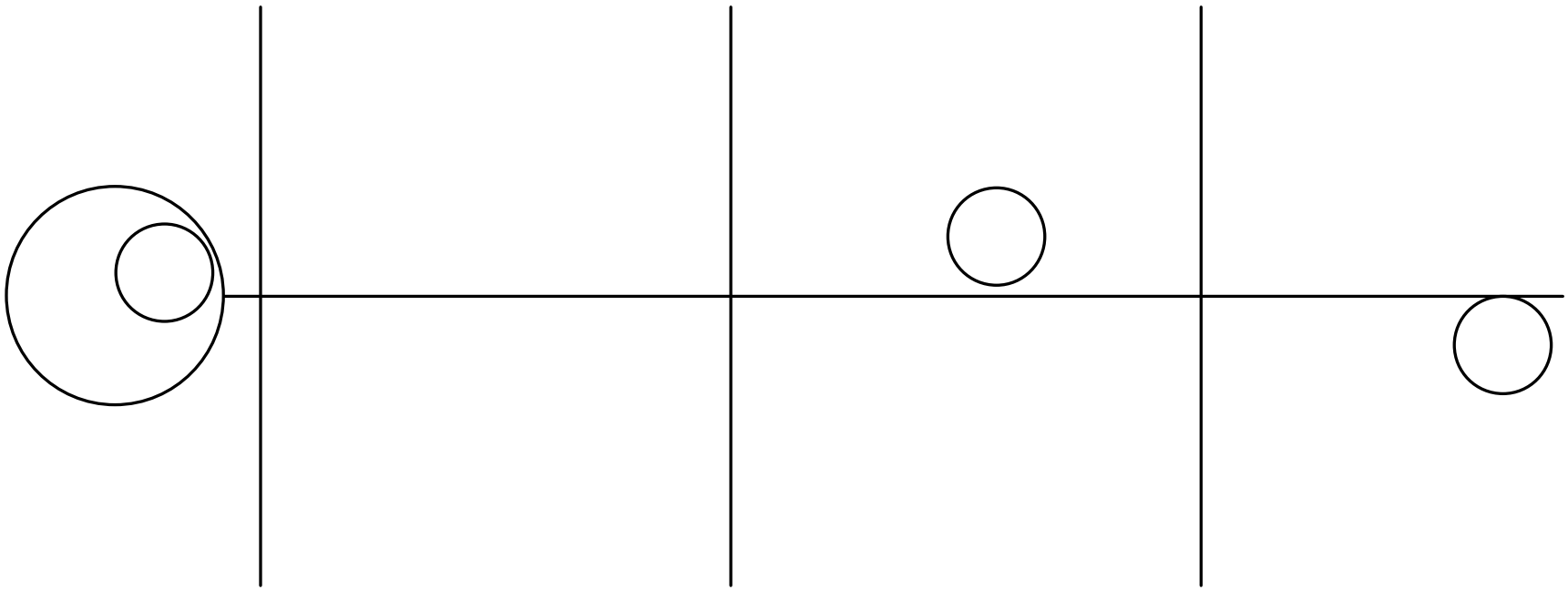
Figure 1: A map of nearby coffee shops



A "silly" problem: Miles needs a cappuccino

Table 1: Results from a price survey

Establishment	Price in dollars	Distance from my bus stop
Starbucks	$3.00	0 blocks away
Second Cup	$2.95	1 1/2 blocks away
Timothy's World Coffee	$2.90	2 1/2 blocks away

Source: data collected by the Author, autumn 2008

Not so "silly" problems

- What determines now much we earn for the hours of work we put in?
- What determines the benefits of an extra year of schooling?
- What determines the value we place on the air, water, and natural environment around us?
- Why do some in the world have so much, and others so little?
- What determines how many babies we should have?

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Milton Friedman on "Positive" vs "Normative" economics

"The Methodology of Positive Economics"

Positive economics is in principle independent of any particular ethical position or normative judgments. As Keynes says, it deals with "what is," not with "what ought to be." Its task is to provide a system of generalizations that can be used to make correct predictions about the consequences of any change in circumstances. Its performance is to be judged by the precision, scope, and conformity with experience of the predictions it yields. In short, positive economics is, or can be, an "objective" science. Of course, the fact that economics deals with the interrelations of human beings, and that the investigator is himself part of the subject matter being investigated in a more intimate sense than in the physical sciences, raises special difficulties in achieving objectivity....[1]

[1] Milton Friedman (1953), "The Methodology of Positive Economics." In *Essays in Positive Economics*. Chicago: University of Chicago Press, page 4.

Economics is a science

How to evaluate a theory

- critique the logic
- evaluate the predictions

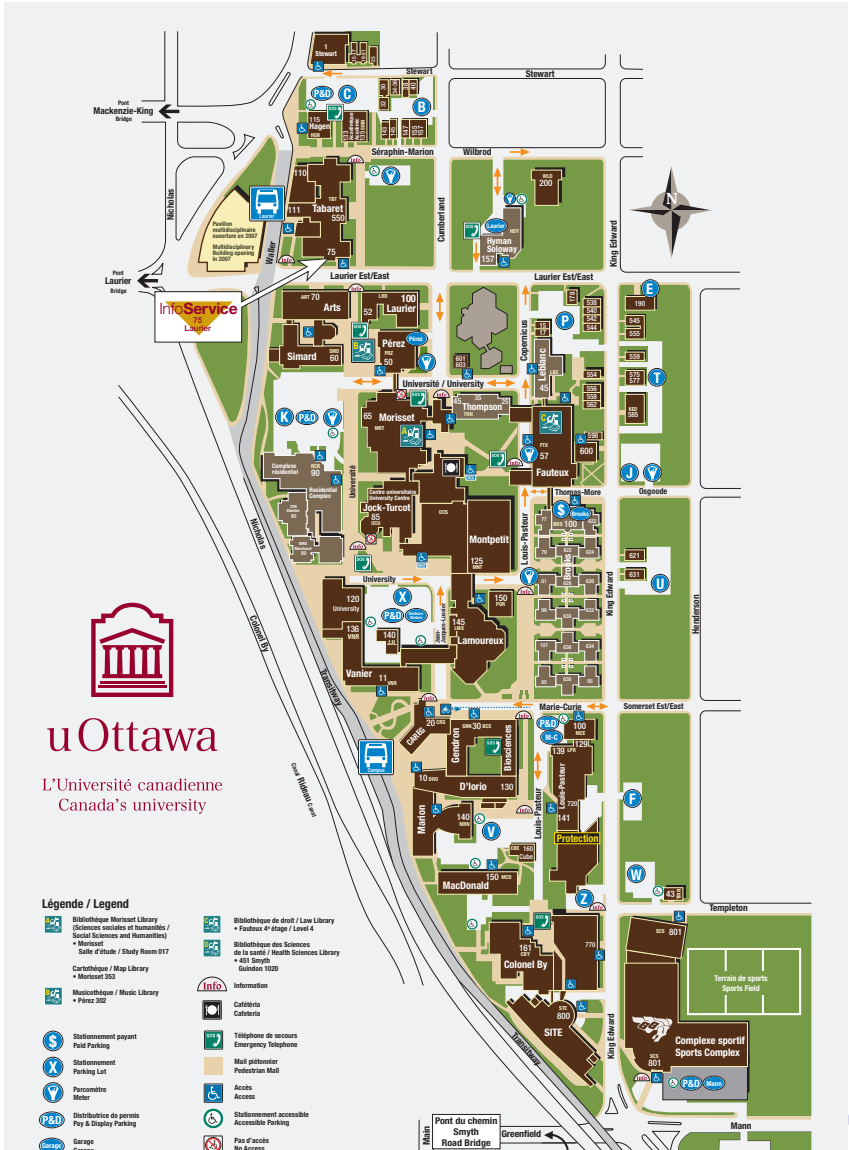
How not to evaluate a theory

- are the assumptions realistic?
- Friedman asserts: "the more significant the theory, the more unrealistic the assumptions"

We should judge a theoretical model not by the realism of its assumptions, but by the validity of its predictions

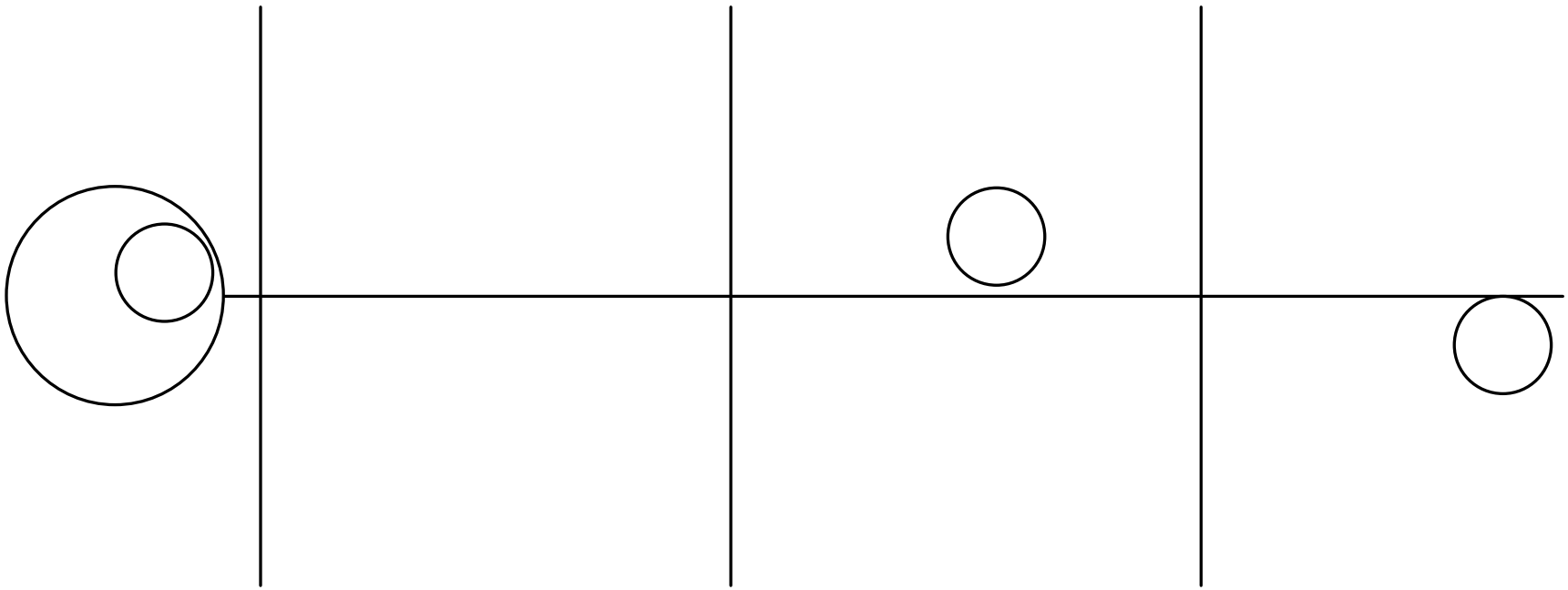
A "silly" problem: Miles needs a cappuccino

Figure 2: Another map of nearby coffee shops

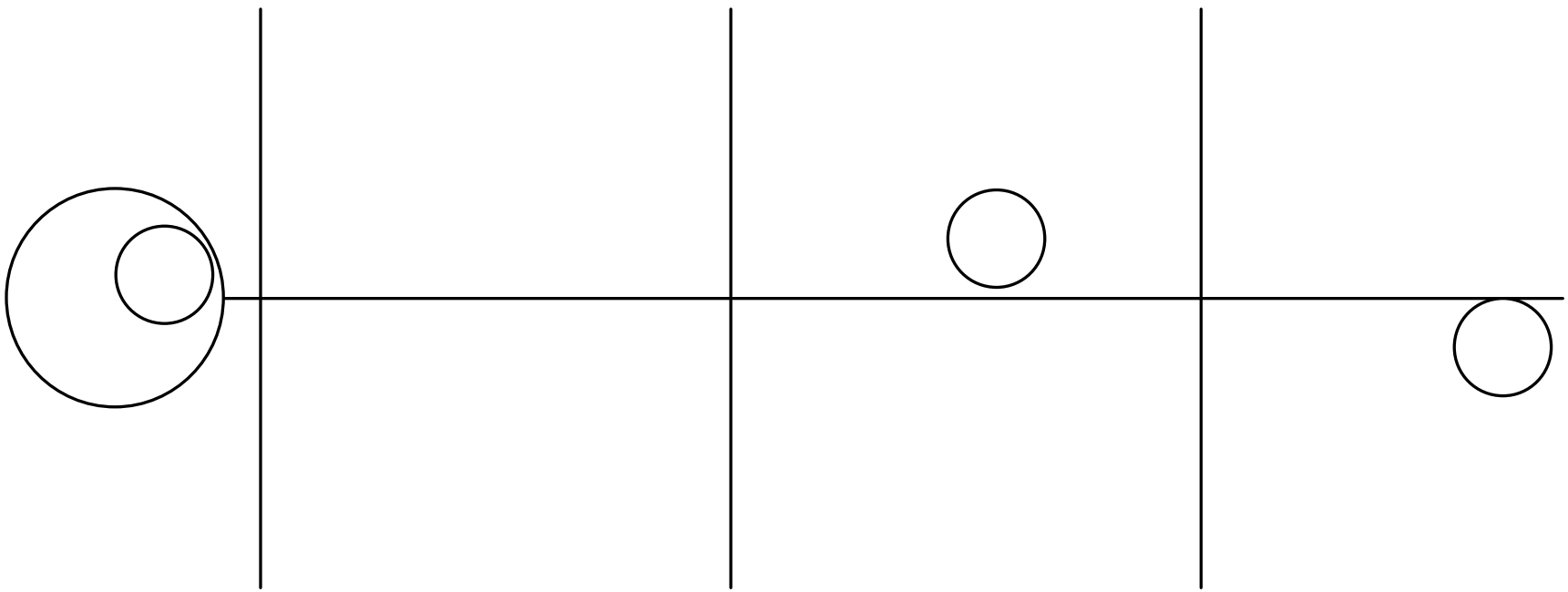


A "silly" problem: Miles needs a cappuccino

Figure 1: A map of nearby coffee shops



Making and testing a prediction



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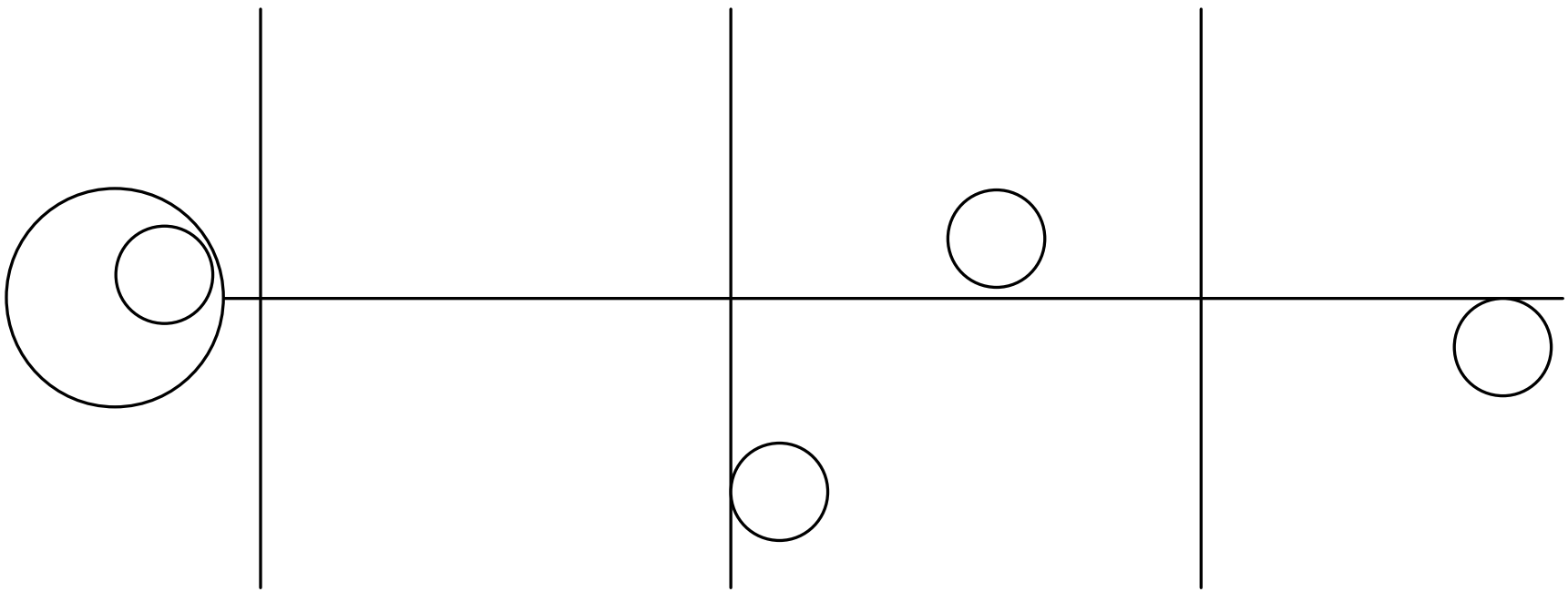

Malthus makes two assumptions

and uses an "equilibrium" condition

1. he observes that human populations double every 10 to 25 years when the environment provides for above subsistence amount of food
   - 2, 4, 8, 16, 32, 64,128, 256
   - his model is a model over the long run, measured in decades and generations
2. the production of food cannot increase at the same rate, in fact it probably increases at a diminishing rate

Something has to give, and that is done through a process that equilibrates population with the productivity of the land. The equilibrating process invloves changes in population.

Equilibrium in the Malthusian model

a long run model with population change

... the human race will be constantly endeavouring to increase beyond the means of subsistence. But as by that law of our nature which makes food necessary to the life of man, populations can never actually increase beyond the lowest nourishment capable of supporting it; a strong check on population, from the difficulty of acquiring food, must be constantly in operation. This difficulty must fall somewhere, and must necessarily be severely felt in some or other of the various forms of misery, or the fear of misery, by a large portion of mankind.[2]

[2] T. R. Malthus (1803), *An Essay on the Principle of Population. or, A View of its Past and Present Effects on Human Happiness; with an inquiry into our prospects respecting the future removal or mitigation of the evils which it occasions.* Selected and introduced by Donald Winch. Cambridge: Cambridge University Press, page 15.

Equilibrium in the Malthusian model

a long run model with population change

The ... checks to population are extremely various, and include every cause, whether arising from vice or misery, which in any degree contributes to shorten the natural duration of human life. Under this head therefore may be enumerated, all unwholesome occupations, severe labour and exposure to the seasons, extreme poverty, bad nursing of children, great towns, excesses of all kinds, the whole train of common diseases and epidemics, wars, pestilence, plague, and famine.[3]

[3] T. R. Malthus (1803), *An Essay on the Principle of Population. or, A View of its Past and Present Effects on Human Happiness; with an inquiry into our prospects respecting the future removal or mitigation of the evils which it occasions.* Selected and introduced by Donald Winch. Cambridge: Cambridge University Press, page 23.

Is this positive economics, or is it normative economics?

What does it mean to say a resource is "scarce"?

an example from David Ricardo

On the first settling of a country, in which there is an abundance of rich and fertile land, a very small proportion of which is required to be cultivated for the support of the actual population, or indeed can be cultivated with the capital which the population can command, there will be no rent; for no one would pay for the use of the land, when there was an abundant quantity not yet appropriated, and, therefore, at the disposal of whosoever might choose to cultivate it. On the common principles of supply and demand, no rent could be paid for such land, for the reason stated why nothing is given for the use of air and water, or for any other of the gifts of nature which exist in boundless quantity.[4]

[4] David Ricardo (1817). *On the Principles of Political Economy and Taxation.* Volume I of The Works and Correspondence of David Ricardo. Piero Sraffa (editor). Cambridge: Cambridge University Press. Page 69.

What does it mean to say a resource is "scarce"?

an example from David Ricardo

- When population is relatively small land has no economic value, no price, it is free like the air we breath. It is, in other words, not scarce.
- At some point our demands upon the natural resources around us increase to the point that they exceed the available supply, and at that point—and only at that point—we have an economic issue.
- Scarcity implies that we face trade-offs in allocating what is available to all the uses it could be put.
- Many people have defined the subject of economics as the study of how to allocate scarce resources among the competing demands placed upon them.

What does it mean to say a resource is "scarce"?

an example from David Ricardo

If a resource is said to be "scarce" all we mean is that the quantity of it available is not sufficient to satisfy all the demands put on it. At some population level land becomes scarce in Malthus's model.

Scarcity, opportunity costs, trade-offs

the definition of "opportunity costs"

- When we reach the point of scarcity our actions entail a type of cost because of the trade-offs that must be made, the use of the resource for one purpose implies that it cannot be used for other purposes.
- In making a particular use we forgo other possibilities. For this reason we refer to these costs as "opportunity costs."
- They are the value we attach to the next best alternative use of the resource, the value of the opportunity foregone.

Scarcity, opportunity costs, trade-offs

the definition of "opportunity costs"

- in the context of scarcity we have an economic problem:
  - how to allocate resources in a way that maximizes the social good.
- Or another way of putting it: how to maximize the surplus in society, and how to allocate that surplus across the members of society.
  - The first is a question of production, or growth, and the second is a question of distribution.

Scarcity, opportunity costs, trade-offs

the definition of "microeconomics"

- Microeconomic reasoning concerns questions of allocation, and it leads to the realization that the maximization of something—the total production less the total costs of production (which is what we mean by "surplus")—requires marginal reasoning; maximization occurs when the marginal benefits of an action just equal the marginal costs.
- Consider Miles's "silly" problem: The most obvious example of a resource that has an opportunity cost is our time, and that is what is driving the pattern of cappuccino prices.

Two types of assumptions

1. technical assumptions

1. There is only one good
   - call it "corn"
   - surplus is easy to measure
   - no need to worry about prices
2. There are two resources
   - land and labour
   - land owners earn a "rent", workers earn a "wage"
   - rents and wage are paid in corn
3. There are four types of land
   - characterized by a diminishing productivity that does not change over time

Two types of assumptions

2. behavioural assumptions

- Technical assumptions alone do not tell us how much land will be cultivated, how much corn will be produced, how large the population will be, nor how the corn is distributed among the classes of the population
- a behavioural assumption is needed
  - borrow from Malthus
  - there is a clearly defined subsistence level of corn
  - above this level population increases, below this level it decreases

A graphical depiction of the model

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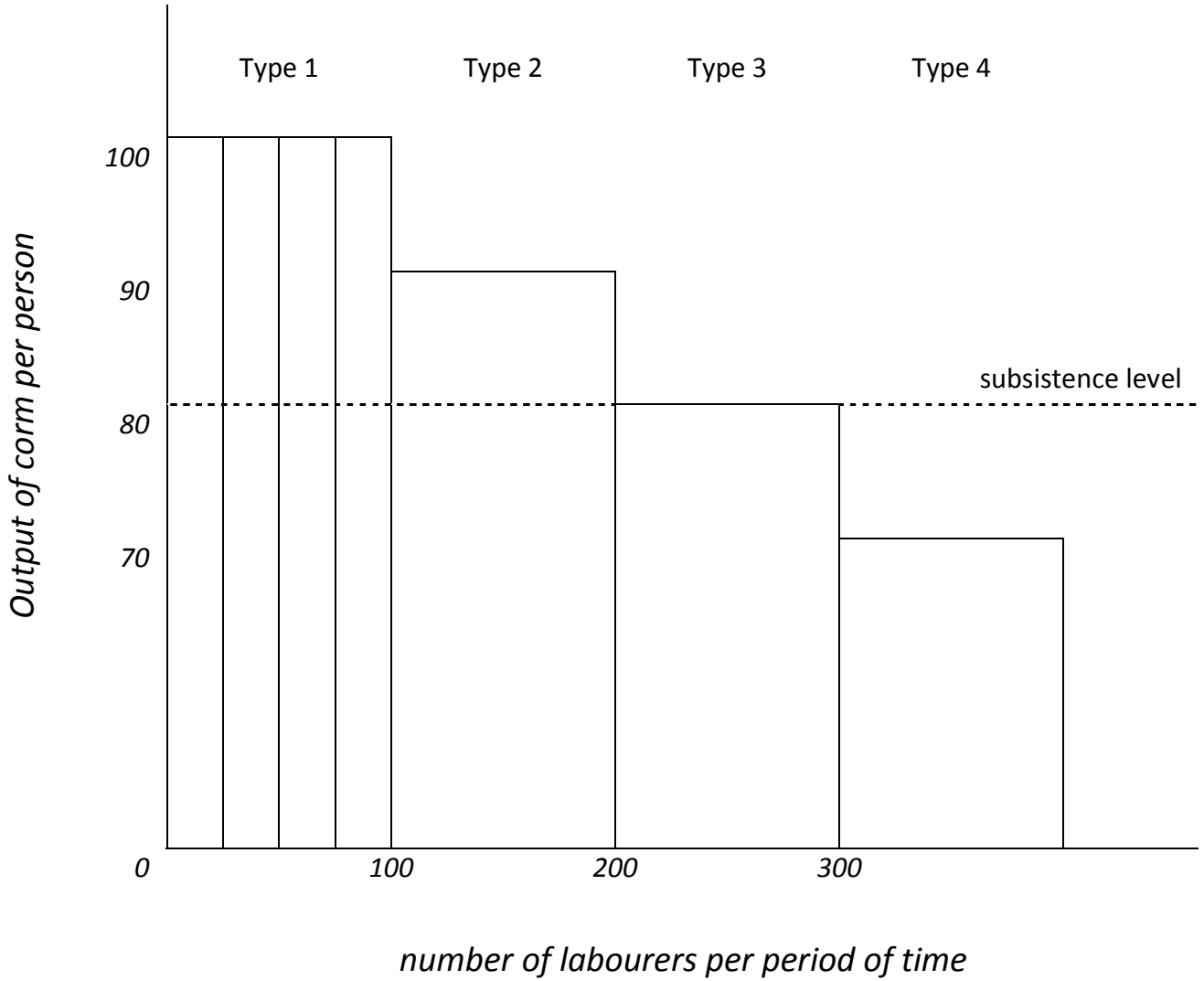
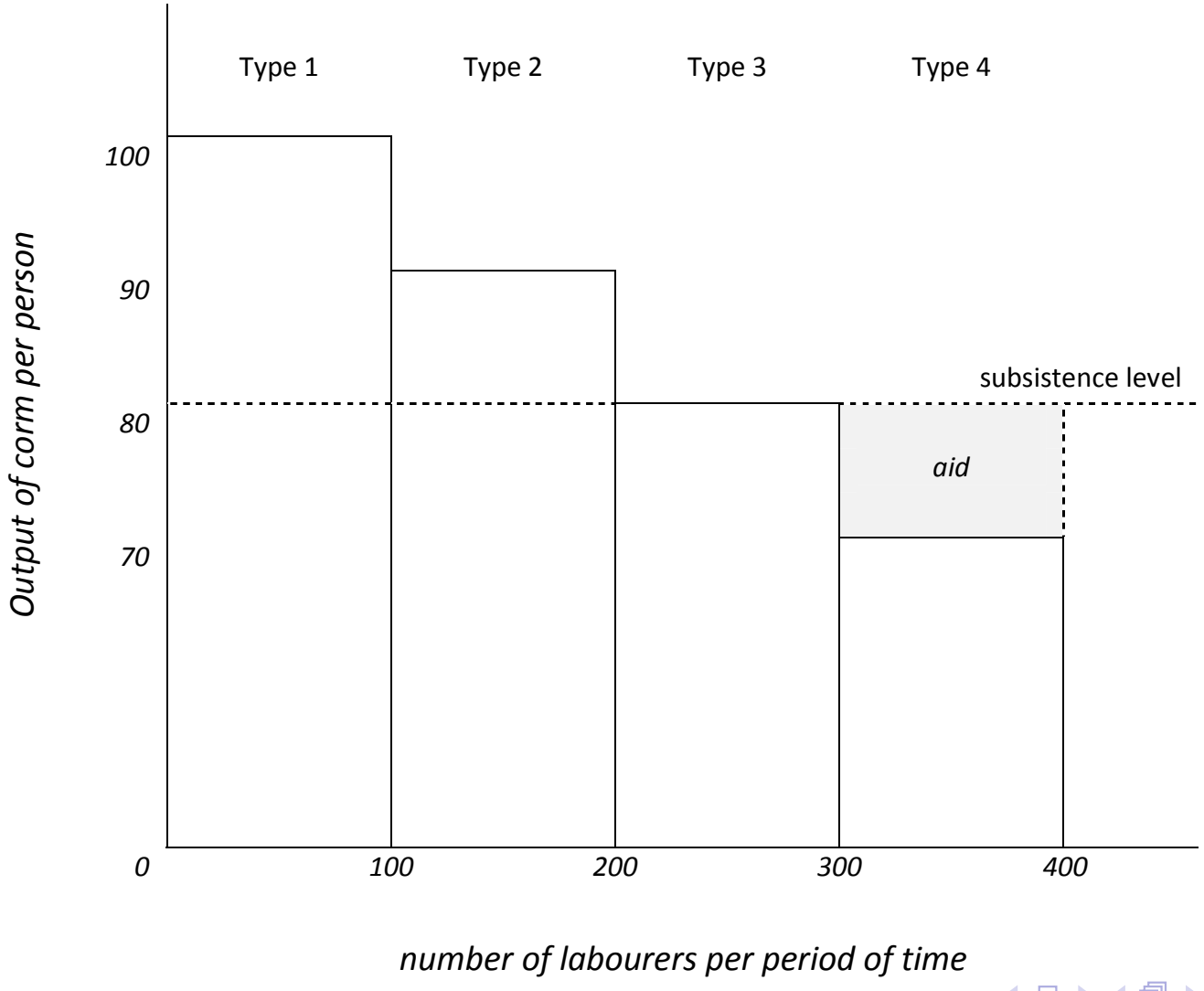


What is the impact of "foreign aid"?



A definition of the subject

what is economics?


A. Author.
Handbook of Everything.
Some Press, 1990.


S. Someone.
On this and that.
Journal on This and That. 2(1):50–100, 2000.