Second Lecture
Utility and Capital: Neoclassical Parables

What is capital?
- Form and contents
- The utility theory of value
- The labour theory of value
- The power theory of value

The hallmarks of neoclassical theory
- Closed system
- Rational utility maximization
- Initial endowments
- Production function
- Independence of supply and demand
- Equilibrium: price, quantity, distribution

Utility
- Philosophical Radicals
- Universal “emotion metrics”
- “The Greatest Happiness for the Greatest Numbers”
- The neoclassical dilution: measuring the immeasurable

Equilibrium and disequilibrium
- Can we ever know?

Supply and demand
- Independence
- Whose “wants” are these?
- Consumer theory and the rise of big business
- Oligopolistic interdependence
- Pierro Sraffa and the Law of Return

Demand
- Horizontal summation
- Sonnesheim-Mantel-Debru and the fictitious consumer

Supply
- Samuelson’s two sovereigns: consumers and technology
- Rockefeller and the production function
- Senior’s “abstinence” and Marshall’s “waiting”
- Clark’s production function

Capital
- Measuring capital
- Present value
- The Cambridge Controversy
- Sraffa’s Re-switching
- Parables and faiths
- Thinking in terms “they cannot define” and answering “unaskable questions”
Greatest happiness of the greatest number
“Nature has placed mankind under the governance of two sovereign masters, pain, and pleasure…. They govern us in all we do, in all we say, in all we think.”

“Quantity of pleasure being equal, pushpin is as good as poetry”

“The greatest happiness of the greatest number is the foundation of morals and legislation.”


Dilution
“A unit of pleasure or pain is difficult even to conceive; but it is the amount of these feelings which is continually promoting us to buying and selling, borrowing and lending, laboring and resting, producing and consuming; and it is from the quantitative effects of the feelings that we must estimate their comparative amounts.”


Measurability: forever impossible
“Utility is taken to be correlative to Desire or Want. It has been already argued that desires cannot be measured directly, but only indirectly, by the outward phenomena to which they give rise: and that in those cases with which economics is chiefly concerned the measure is found in the price which a person is willing to pay for the fulfillment or satisfaction of his desire. . . .”

“It cannot be too much insisted that to measure directly, or per se, either desires or the satisfaction which results from their fulfillment is impossible, if not inconceivable. If we could, we should have two accounts to make up, one for desires, and the other of realized satisfactions…. The two direct measurements then might differ. But as neither of them is possible, we fall back on the measurement which economics supplies, of the motive or moving force to action: and we make it serve, with all its faults, both for the desires which prompt the activities and for the satisfactions that result from them.”


Circularity: cause or effect?
“Utility is a metaphysical concept of impregnable circularity; utility is the quality in commodities that makes individuals want to buy them, and the fact that individuals want to buy commodities shows that they have utility.”

**“Because” and “Despite” in the Oil Market**

- “Oil prices rise as OPEC output cut nears”

- “World: Commodities - Oil prices fall despite OPEC output cut”
  EIU Viewswire New York: Mar 31, 2004. p. n/a

- “Oil prices slide in anticipation of rise in output”

- “Oil prices soar despite rise in output”

- “Oil prices fall on rising US stockpile”

- “Crude markets unphased by OPEC; oil prices rise despite stock build”

- “OPEC agreement means oil prices likely to increase”

- “Oil prices fall despite OPEC agreement”

- “Oil prices soar on OPEC pact to cut output”

- “Oil price falls despite cut in output”

- “Oil prices fall again in response to Bush’s hope for Mideast accord and signs of ample supplies”

- “Oil price rises despite ample supply”

- “Oil prices rise amid reports Iraq jets attacked operations at Iran terminal”

- “World oil prices fall despite Iran-Iraq war”
Non Residential Investment in the United States:
Prices and Quantities

* 'Relative Price' is computed by dividing the price index for non-residential investment by the price index for GDP.
SOURCE: U.S. Bureau of Economic Analysis, NIPA table 1.5.3 and 1.5.4.
Non Residential Investment in the United States: Prices and Quantities

Relative Price (2000=100)

Quantity (2000=100)

1957
1929
S
D
2003

Non Residential Investment in the United States: Prices and Quantities

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"Equilibria" without SMD

[Diagram showing supply and demand curves with multiple equilibria points.]

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The Production Function

\[ Q = F (\text{Labour, Land, Capital}) \]

1. Labour, land and capital are separate factors of production; they are observable and measurable, so we can say, for instance, that we have 20 units of labour, 30 of land and 50 of capital.

2. These factors enter a “production function,” which is essentially a technical blueprint specifying how these factors interact and how much they end up producing.

3. Each of these factors has its own intrinsic productivity – in other words, each is responsible for a definite proportion of the output.

4. And finally, under conditions of competition, the incomes of these factors – the wages, rent and profit – are equal to their marginal contributions.

Discounting

\[ K = \frac{\Pi}{r} \]

$10 mn \leftarrow \frac{\$1 mn}{0.1}$

$20 mn \leftarrow \frac{\$2 mn}{0.1}$

$5 mn \leftarrow \frac{\$1 mn}{0.2}$

Causality?

Income (\(\Pi\)) \leftarrow output \leftarrow production \leftarrow factor inputs (K)
Food for thought

Paul Samuelson:
“If all this causes headaches for those nostalgic for the old time parables of neoclassical writings, we must remind ourselves that scholars are not born to live an easy existence. We must respect and appraise the facts of life.”

C.E. Ferguson:
“Placing reliance upon neoclassical economic theory is a matter of faith. I personally have the faith; but at present the best I can do to convince others is to invoke the weight of Samuelson’s authority.”

Geoffrey Harcourt:
“As a betting man, I know on whom I’d put my money; but then as a God-man, I have never expected virtue to triumph this side of the grave.”

Joan Robinson:
“No doubt Professor Ferguson’s restatement of “capital” theory will be used to train new generations of students to erect elegant-seeming arguments in terms which they cannot define and will confirm econometricians in the search for answers to unaskable questions. Criticism can have no effect. As he himself says, it is a matter of faith”