

History of Economic Thought

Final Exam

January 3, 2014

Indicative answers.

I. The Labour Theory of Value (brief answers)

The Labour Theory of Value is explained as

“The value of a commodity or the quantity of any other commodity for which it will exchange, depends on the relative quantity of labour, which is necessary for its production, and not on greater or less compensation that is paid for that labour.” (Ricardo, 1817)

So, one is able to calculate the input of labour (counted as hours) in any commodity and by that determine the value of that commodity. From the Ricardo’s “beaver and deer example”, one learns that beaver is twice as expensive as deer, as it takes twice as many hours to hunt down and kill a beaver than a deer.

However, if you are using equipment (guns) to hunt, how do you take that into account when calculating prices of your prey? Simply by adding to the hours spent on hunting the time used to make the gun, taking into account the number of rounds the gun is capable of being fired. Example! It takes two hours to hunt and kill a beaver and one hour to do the same with a deer. Add to this the making of guns, imagine it takes 100 hours to make a gun and that a gun can be fired 50 times. If it on average takes 2 shots to kill a beaver and one shot kill a deer, we have obtain:

Price of a beaver: 2 hours hunting + 4 hours gun making

Price of a deer: 1 hour hunting + 2 hours gun making.

The “93% problem” arises from use of capital; and by capital, the classical economists meant investment in time. Imagine that a hunter has to be trained for one year to perform his job and that the employer will have to feed and pay the hunter-trainee in that period – a period in which the trainee is not able to produce any output. How is this cost of education to be added to the value of future output (animals shot)? Can that be done unambiguously? No! However, Ricardo tells us that this is a minor problem and that the Labour Theory of Value still holds not less than 93%! This is the beginning of a long struggle to account for the use of capital in production, and the outcome was that the theory had to be abandoned.

II. The interest rate (brief answer)

A natural point of departure is the theory proposed by Eugen von Böhm-Bawerk. He argues that it is in the human nature to consume as much as possible now, and not later, and what then will persuade us to wait? A positive interest rate! Böhm-Bawerk has his famous three psychology-based reasons for the interest rate to be positive:

1. We are optimistic and believe that more resources will be available in future periods

2. We underestimate our future needs (also psychology)
3. Much production takes time – trees to grow, wine to mature, complicated factories to be built and put to use. Time measures capital intensity.

Only a positive interest rate can persuade us to wait. The discount rate:

is the relative price of one good – or a bundle of goods – one period from now measured in terms of one unit of good(s) this period.

Not so simple, according to Irving Fisher:

Is Böhm-Bawark right? Possibly, but not necessarily “Impatience may be and sometime is negative” It is likely, but not certain that the interest rate will be positive.

Answers may mention that in the intertemporal Walras general equilibrium model, one has no unique interest rate but many intertemporal relative prices, i.e.

The price for butter in period 5 may be higher or lower than the price for butter in the first period – that will depend on demand and supply. In this, very general model, it is not obvious that prices for one specific commodity will rise or fall over time, so one cannot know anything about the sign of the (butter-) interest rate!

These models have no money and no inflation so they explain a real interest rate; the interest rate explained simply is the marginal productivity of capital.

In models with money and inflation, the deflated nominal interest rate – called the real rate of interest – may be positive or negative. Answers may reflect upon this.

If i is the nominal interest rate, p^e the expected rate of inflation, we can forecast the expected real rate, r^e as

If we expect a low nominal interest rate and a high inflation rate, we expect a low / negative real rate of interest; r^e may easily be negative. Should r^e be lower than the marginal productivity of capital, the model is not in equilibrium and we end up with inflationary booms as explained by Wicksell and – in other words – by Fisher.

III. Cardinal and ordinal utility.

Accepting cardinal utility means that one believes that utility can be measured and compared between individuals. That is what Edgeworth and Pigou think – the latter without any hesitation and in clear language. Edgeworth's wording is difficult, but Samuelson's "translation" is discussed in Sandmo's Ch. on Edgeworth. For these economists, utility was something very concrete! Good answers can include references to Jeremy Bentham – British philosopher, often referred to by Sandmo – who argued strongly for cardinal utility.

Pareto is clearly of the opinion that interpersonal comparisons are impossible; a good answer will elaborate upon this and explain that Pareto optimality – important for all welfare economics – rules out any redistribution of income if anyone is hurt! However, this does not mean that one cannot do anything, only that taking from one and giving to another lacks scientific foundations.

Pigou is interesting, writing as he did after Pareto. "It is evident that any transference of income from a relatively rich man to a relatively poor man..... must increase the aggregated sum of satisfaction." What to think? First, his reference to "The old law of "diminishing [marginal] utility" is clearly irrelevant; that in no way counters Pareto's argument for ordinal utility. Several explanations for Pigou's position may be offered. In class, I argued for a common-sense interpretation. When people are starving, support though public intervention is the only decent, Christian, humane etc. thing to do. It only shows the limitations of Pareto's concept when applied to taxation and welfare. Good answers should reflect upon this in one way or another. Students' personal opinion is not so relevant – they must understand the issue.

The indifference curves. With cardinal utility, moving to a higher curve means that utility has been increased by a well-defined amount. Curve 1 is 5, curve 2 is 9 etc. Being at a higher indifference curve under ordinal utility means that you prefer that to be positioned on a lower curve. Pareto constructed his theory of utility by assuming preferences (the indifference curves); while economists working with the assumption of cardinal utility based derived their indifference curves from a utility function.