Written Exam Economics Summer 2017

History of Economic Thought

From May 6 at 10 a.m. to May 13 at 10 a.m.
Indicative answers

1. **The Deer and the Beaver**

Explain Adam Smith's and David Ricardo's labour theory of value by sketching the Deer and Beaver example.

The labour theory of value states that the value of all goods is determined by the number of labour hours embodied in the goods. So, all relative prices are proportional to the embodied labour hours.

The Deer and Beaver fable – invented by Adam Smith and elaborated upon by David Ricardo – tells us that meat from beaver must be twice as expensive as meat from deer, because it takes twice as many hours to hunt down a beaver than a deer. Well, we use guns to hunt, how is that taken into account? A gun is a piece of capital and its construction can be decomposed into hours. When we further assume that the gun can last a certain number of firings we see that all inputs are hours of labour!

However, what happens when we realize that hunter must be trained? – a period of schooling cost money (as the trainee must be fed) and brings no revenue. The value of such a period must be dependent upon length of time and interest rates – and these figures cannot easily be converted into labour hours. Realizing this brought Ricardo to understand that the LTV holds only 93 %.

2. **Production and Distribution**

In his *Principles*, J.S. Mill says that

"Unlike the laws of Production, those of Distribution are partly of human institution: since the manner in which wealth is distributed in any given society, depends on the statutes or usages therein obtaining. But though governments or nations have the power of deciding what institutions shall exist, they cannot arbitrarily determine how those institutions shall work. The conditions on which the power they possess over the distribution of wealth is dependent, and the manner in which the distribution is affected by the various modes of conduct which society may think fit to adopt, are as much a subject for scientific inquiry as any of the physical laws of nature."

In his *Capital in the Twenty-First Century*, Thomas Piketty repeatedly shows diagrams like

CAPITAL IN THE TWENTY-FIRST CENTURY

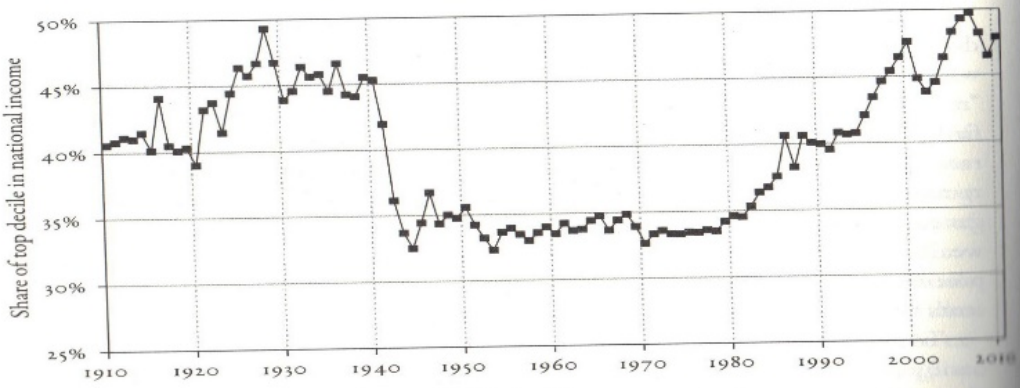


FIGURE I.1. Income inequality in the United States, 1910–2010

The top decile share in US national income dropped from 45–50 percent in the 1910s–1920s to less than 35 percent in the 1950s (this is the fall documented by Kuznets); it then rose from less than 35 percent in the 1970s to 45–50 percent in the 2000s–2010s. Sources and series: see piketty.pse.ens.fr/capital21c.

and calls for a tax on wealth. Therefore, per Mill, taxing wealth is possible and per Piketty, it should be brought into effect. When debating the income distribution in his *Economics of Welfare*, Pigou appears to agree; however, he adds a cautious note:

"Any cause which increases the absolute share of real income in the hands of the poor, provides that it does not lead to a contraction in the size of national dividend from any point of view, will, in general increase economic welfare"

Do you think that Pigou's caution or other obstacles should prevent us from taxing wealth (more)?

Obviously, an answer to this question can take several routes!

One could argue that however fine and wise the quote from Mill may sound, it is not necessarily true that the distribution of personal income is a political matter only – as Pigou pointed out, high taxes on (marginal) income may harm the incentives. There could easily be a trade-off. However, Piketty demonstrates that – at least in some countries – the rich are getting very much richer; here some would tell the r > g story and maybe add the competing "super manager" story.

Therefore, in case the responding student agrees with Mill and argues that incentives are of secondary importance – one may even add that inequality may harm wealth as society then becomes a battleground – and goes for a Piketty wealth tax. Alternatively, one could argue that even though a wealth tax in principle would be priority number one, it cannot be implemented (why?) so, high marginal income tax rates should be introduced or maintained.

An equally fine line of argument is that Mill is right, however inequality – perhaps to a certain limit – is only reflecting fairness and that Piketty is only demonstration that accumulation of capital is something the entire population must do!

What we need is arguments that are logically consistent! Are you arguing along lines of fairness, of considerations relating to peace in society or growth? Do you show some respect for trade-offs and for the political feasible?

3. Why unemployment in the General Theory?

In his General Theory, Keynes is proposing a model where unemployment equilibria is a possibility. What are the critical assumptions leading to equilibria with unemployment?

Do we have a mechanism of automatic stabilization? Not according to Keynes! The standard neoclassical argument was that unemployment is caused by too high wages and that flexibility is needed to reestablish full employment. According to Keynes, there may well be various kinds of inflexibility, however, even in a state of perfect flexibility, full employment is not guaranteed as falling wages may lead to expectations of further falls. Keynes wanted to eliminate all arguments related to "wrong" prices and wages creating unemployment. According to Keynes, expectations – in the labour as well as the goods market – were the critical factor. Keynes' message is that interventions on the demand side of the economy is needed.

Keynes' version is possible, so are models with completely fixed wages, or with slowly adjusting wages.
It is good start, however not quite adequate, just to tell "what Keynes believed" – we must have reflections upon empirical and political relevance.

Answers may include reflections on the fact that many post-Keynes versions of the model would be assuming slow adjustments in wages when unemployment occurs.

4. The real rate of interest

Consider the real rate of interest as defined and discussed by Böhm-Bawerk and Fisher. What determines that magnitude; and will it be positive or negative?

Many nominal, short-term interest rates are now negative, so when deducting inflation rates, we end up with an even more negative figure. Discuss the relationship between this figure and the real rate of interest that you have just defined.

When i.e. Böhm-Bawerk and Fisher discussed whether interest rates would be negative or positive, they argued based on fundamental factors like patience /impatience and productivity. As we know from Sandmo, B-B strongly believed that the interest rate would be positive – psychological arguments like "the fundamental impatience and the over-optimism of mankind" would lead to a positive interest rate. We will need something to postpone consumption. Fisher was not so sure; when you stress the importance of securing the future consumption flow and at the same time, productivity is low, the real interest rate may be negative.

These arguments are cast in a real context – inflation does not enter in any way.

These days, many interest rates – certainly short-term interest rates – are low, even negative. When nominal figures are deflated, we end up with real interest rates that often will be (more) negative.

Now, has this anything to do with B-B's and Fisher's considerations?

Either, one can argue that in modern, static times, real interest rates have indeed become negative, as Fisher predicted could eventually happen. Or, one could say that the deflated interest rates are the results of the macro economy in turmoil and of aggressively expansionary monetary policy. The system is not in equilibrium – one may think in terms of Wicksell – as the deflated rates are below the fundamental equilibrium rates.

The trap here is that the term "real rate of interest" has two meanings.

5. **Possible differences between imperfect and monopolistic competition.**

One argues that Joan Robinson's imperfect competition and Edward Chamberlin's monopolistic competition are more or less the same idea. It is true that both based their arguments on the demand curve being downward sloping. However, can you find differences?

Some responding students may real parts of the original papers, while other students rely on Sandmo and the slides.

Many considerations:

Robinson showed some interest in the downward sloping supply curve issue; could there be an equilibrium with increasing returns to scale? So, imperfect competition is a restoration and modernization of Marshall. That is hardly in Chamberlain!

Giving up perfect competition is a way of moving closer to "modern reality"; firms not adjusting prices continuously. Imperfect competition (sticky prices) are partly to blame for unemployment. Robinson the critical economist.

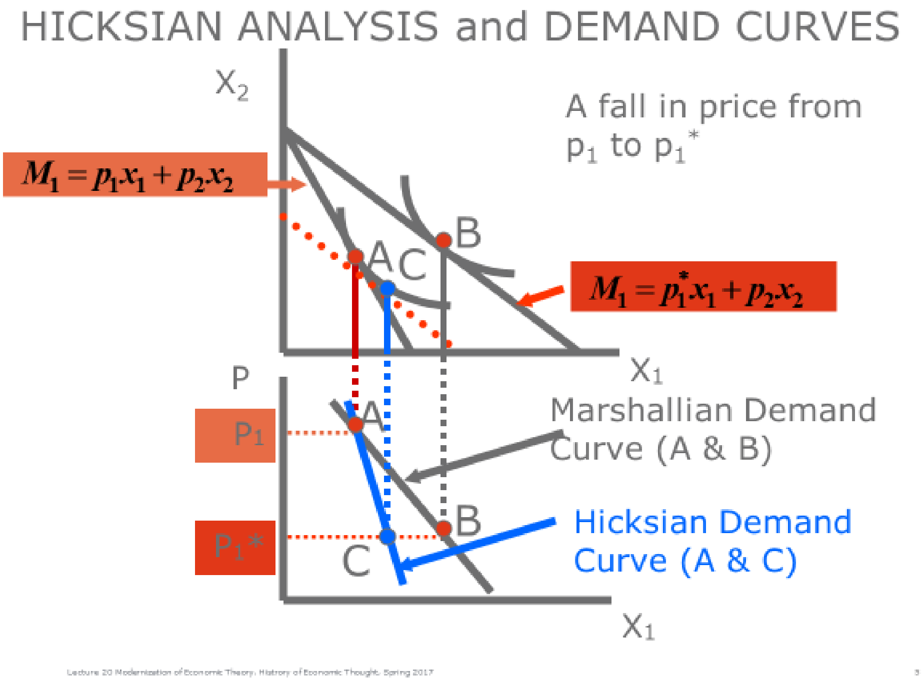
Robinson's book seen as a modern text book on price or micro theory – was used as such – while Chamberlain was an empirically inspired discussion of contemporary American business life. Robinson made some graphical illustration that could be seen as a continuation of Marshall.

Monopolistic competition with advertising and competition not related to price settings are what "modern firms" do; not about repairing upon any previous writer.

6. **Income and substitution effects**

Explain income and substitution effects by drawing and explaining a diagram. Discuss possible differences between Alfred Marshall's and John Hicks approaches to these phenomena.

Either, on could refer to Sandmo's figure on p. 395, or den figure from slide 20:



When the price of x_1 goes down, two things happen. X_1 is getting cheaper and the consumer will adjust his or her demand, so that more is consumed of that commodity, we move from A to B. However, the consumer is also getting richer in the sense that the budget line moves to a higher position. From this we see that the movement from A to B is based on two decisions. One is the adjustment towards the now cheaper good (the substitution effect) and the other is the reaction to the increased real income (the income effect). Marshall called the move from A to B for substitution, while ignoring the income effect (He referred to the partial equilibrium method, where repercussions from the market in x_1 were small enough to be neglected). Hicks armed with the insights from the Slutsky equation saw that substitution proper would bring us from A to C, while the income effect would bring us from C to B. Notice here that the income effect – if large enough – could increase the demand for x_2 as well.

7. Ricardo as the founding father of trade theory

Ricardo is hailed as the true founding father of the theory of international trade; this year we are celebrating the 200th anniversary of his The Principles of Political Economy and Taxation. Much of his fame is related to Ch. 7 "On Foreign Trade" – the text of that chapter is short and is enclosed here. The text is downloaded from http://www.econlib.org/library/Ricardo/ricP2a.html
The text seems to be identical with the one in the 3rd edition of Principles, ref. The Work and Correspondence of David Ricardo, vol. 1 edited by Piero Sraffa, Cambridge University Press, 1951.

Please read the text and reflect upon these questions:

a. Value and Enjoyment.

In the first sentence of your text, Ricardo says that *"foreign trade will not increase the value in a country, however it will increase the amount of commodities, and therefore the sum of enjoyments"*. Discuss the distinction between value and enjoyment; if "enjoyment" is increased why doesn't some measure of "value" go up?

Ricardo's statement is a logical consequence of his value theory! Value is determined by the Labour Theory of Value (LTV). When it takes -say – two hours to produce a bottle of wine in England then we have determined the price of wine in that country! Opening for import of wine from – say – Portugal where a bottle of wine can be produced by one hour of labour, does not alter the English price! That may be so according to his LTV, but obviously, it cannot be true – a fact that he admits by telling us that the amount of commodities increases and so does "enjoyment" (utility). However, why utility go up without increasing value to consumers? We have clash between common sense and theory – and the guilty part is the LTV. Utility plays no part in determining value when prices are determined from the cost or supply side.

b. International and Domestic Trade.

Ricardo writes: *"The same rule which regulates the relative value of commodities in one country, does not regulate the relative value of commodities exchanged between two or more countries."* Further, read his remarks on the differences between trade from Yorkshire to London and trade between countries.

Why should that be so, is it true? What is behind Ricardo's arguments here?

Ricardo has subtle understanding of trade within a country; it pays to send agricultural products from the country-side to London and merchandise the other way. Fine and well! However, why are principles and rules different when international borders are crossed? Again, the reason is that the LTV is jeopardized when different countries have different technologies (fewer or more hours are used in other countries.). This cannot be true! Firstly, one may find examples where technologies (hours needed for production) would be different in various parts of the same country (merchandize produced in London and Edinburgh) and secondly, importing technologically superior good from one country to another must do the same to prices as goods send from one part of the country to another. The LTV cannot explain prices!

c. Absolute and Relative Advantages.

In your enclosure, Ricard says that

"Under a system of perfectly free commerce each country naturally devotes its capital and labour to such employments as are most beneficial to each. It is this principle which determines that wine shall be made in France and Portugal, that corn shall be grown in America and Poland, and that hardware and other goods shall be manufactured in England"

The first sentence is a statement of relative advantages – this is what made Ricardo's fame! However, the second sentence is more difficult! Is one able to deduct that a country which is inferior in all lines of production cannot produce anything? May he be contradicting himself?

Now, compare Ricardo's position to that of Adam Smith and James Mill.

In The Wealth of Nations (IV.ii.12) Adam Smith writes

"What is prudent in the conduct of every private family, can scarce be folly in that of a kingdom. If a foreign country can supply us with a commodity cheaper than we ourselves can make it, better buy it from them with some part of the produce of our own industry, employed in a way in which we have soma advantage. The general industry of a country, being always in proportion to the capital which employs it, will not thereby be diminished, no more than that of the above-mentioned artificers; but only left to find out the way in which it can be employed with the greatest advantage. It is certainly not employed to the greatest advantage, when it is directed towards an object which it can buy cheaper than it can make."

First, we have an absolute clear statement of the benefits of international trade – nothing about principles in domestic and international trade being different. We also learn that the production processes will adjust when trade is going on – the value and utility go up. Do we have absolute or relative advantages? Not quite clear as the production processes change – but all in all, a more sophisticated understanding than in Ricardo.

James Mill writes something similar in his Elements from 1808 (p. 273):

"When a country can either import a commodity or produce it at home, it compares the cost of producing it at home with the cost of procuring from abroad; if the latter cost is less than the first, it imports."

Again, true and at least not contradicting the existence of comparative advantages.

Now, when you compare these statements by Smith and James Mill with the quote from Ricardo, is it obvious that Ricardo understood that trade was based on relative advantages, while the two earlier economists did not understand that?

One may have different opinions on this. However, it is hard to argue that Smith and Mill had a less sophisticated understanding than Ricardo did.