**Interpreting the Great Depression: Hayek versus Keynes. Prepared for the INET Conference, Cambridge University, 8-11 April 2010.**

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i.

This is not intended to be a purely historical paper. I am interested in the light the Keynesian and Hayekian interpretations of the Great Depression throw on the causes of the Great Recession of 2007-9 and in the policy relevance of the two positions to the management of today's globalizing economy. In my recent book, *Keynes-The Return of the Master*, I committed myself to the view that the present crisis was at root not a failure of character or competence but a failure of ideas, and quoted Keynes to the effect that 'the ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly supposed. Indeed, the world is ruled by little else'. So any enquiry into policy failures –assuming that these were at least partly responsible for the two crisis –inevitably turns into an enquiry into the ideas in the policy-makers' minds, which are in turn, at least partly, the product of the economic models in the economists' heads.

ii.

In the run-up to the Great Depression, it is easier to specify the model in Hayek's mind than in Keynes's. Hayek was a Walrasian. That is he believed that a market economy could be sufficiently specified as a set of simultaneous equations. Walras envisaged simultaneous market clearing through a process of 'tatonnement', or continuous groping , the modern metaphor for which would be a computer feeding the market with up to the minute information about all the prices and preferences in the system. Under the assumptions of complete markets and perfect competition, there would be a general equilibrium.

Although Walras's initial model excluded considerations of time, his later renditions were divided into two periods where capital goods produced in the first period only yielded output in the second. The extended model implicitly introduced the concept of inter-temporal equilibrium alongside market clearing at a single moment in time. Decisions to save were decisions to give up present consumption in order to secure greater consumption later. The rate of interest was the 'natural' rate of exchange between present and future goods. Changes in the rate of interest thus acted as signals to producers to switch between the production of consumption and what Hayek called intermediate goods. This became the bedrock of the 'Austrian theory' of capital and interest.

But it was only with Lindahl and Hayek in the late 1920s that the importance of time was explicitly addressed. In his seminal paper 'Intertemporal Price Equilibrium and Movements in the Value of money', first published in 1928, Hayek identified money as the 'loose joint' in the theory of inter-temporal adjustment. The theory of money should concern itself with the conditions under which money could be kept 'neutral'. The main conclusion he drew from this analysis was that a credit-money economy would only behave like a barter-exchange economy if banking policy prevented an expansion of credit. This required a fully gold-backed money supply. Failing this, there would be 'malinvestment', (investment in excess of voluntary saving), the only cure for which was depression.((The possibility of investment falling short of saving was ruled out by assumption.) Hayek's model was illustrated by the following illustration from his book *Price and Production*, 1931:

The situation [following an injection of money by the banking system] would be similar to that of a people on an isolated island, if, after having partially constructed an enormous machine was to provide them with all necessities, they found they had exhausted all the savings and available free capital before the new machine could turn out its product. They would then have no choice but to abandon temporarily the work on the new process and to devote all their labours to producing their daily food without any capital. (P and P, p.38)

Keynes's starting position in the late 1920s is harder to define, since his ideas were in flux. It is difficult to talk of a distinctive Keynes model, since he had not yet developed a theory of output. His two pre-Depression theoretical books can be read as explanations of the tendency for economies to experience deep price fluctuations., using the quantity theory of money as his analytic framework.

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In his *Tract on Monetary Reform* (1923) Keynes argued that changes in the quantity of money could induce expansions and contractions of output by creating uncertainty about the future course of prices. Businessmen made windfall profits in the inflationary upswing and windfall losses in the deflationary downswing. These cause them to expand or curtail production. Hence active monetary policy was needed to stabilize the domestic price level. Not surprisingly, Milton Friedman regarded the *Tract* as Keynes's best book. Hayek rejected Keynes's policy of price stabilization.

He thought that a stable price level could disguise inflationary tendencies when prices ought to be falling.(P &P,p.27) In his *Treatise on Money* (1931), written mainly in 1928-29, Keynes had moved on to explaining expansions and contractions of production in terms of an imbalance between the value of saving and the cost of investment, though these monetary entities were disaggregated versions of the quantity of money. Whereas for Hayek an increased desire to save led to increased investment in capital goods, for Keynes it brought about a contraction of the economy in the absence of a corresponding increase in the desire to invest. Hayek spotted the revolutionary implications of this claim: the assertion that there was no automatic mechanism to keep saving and investment equal 'might with equal justification be extended to the more general contention that there is no automatic mechanism in the economic system to adapt production to any other shift in demand'. ((Economica, Nov 1931, p.401). Nevertheless, Keynes still retained his faith in the ability of monetary policy to manipulate long-term interest rates sufficiently to offset any imbalance between the supply of saving and the demand for investment. Keeping saving and investment equal, though, would not necessarily be the same as keeping the price level constant.

iii.

With these different theoretical backgrounds, how did Hayek and Keynes explain the Great Depression? Both may lay claims to have predicted it, not in the sense of predicting when it would happen, but in detecting fault-lines in the pre-Depression economy which made a collapse likely sooner or later. Hayek argued in the spring of 1929 that a serious setback to trade was inevitable, since the 'easy money' policy initiated by the US Federal Reserve Board in July 1927 had prolonged the boom for two years after it should have ended. The collapse would be due to overinvestment in securities and real estate, financed by credit creation. (Hayek's prediction ca n be found in Mises,Human Action: A Treatise on Economics, 3rd ed,1966, pp.161-2). Keynes, looking at the same situation in the autumn of 1928, thought that the danger lay in the 'dear money' policy initiated by the Fed in 1928 in an effort to choke off the asset boom. Savings, Keynes argued, were plentiful, there was no evidence of inflation. The danger was the opposite to the one diagnosed by Hayek. 'If too prolonged an attempt is made to check the speculative position by dear money, it may well be that the dear money, by checking new investment, will bring about a general business depression'. (CW,xiii, 4 October 1928). For Hayek the depression was threatened by 'investment running ahead of saving'; for Keynes by 'saving running ahead of investment'. Looseness by both men in the definitions of 'saving' and 'investment' tended to obscure their message.

These Hayekian and Keynesian forecasts turned into explanations of the slump once it had happened. In a lecture in Cambridge in 1931 Hayek, newly brought to the LSE by Lionel Robbins, expounded the theory of his book, *Prices and Production*. The slump was due to a crisis of over-investment –overinvestment in relation to the amount of consumption people wanted to forego –financed by credit-creation by the banking system. The slump was merely the process of eliminating the unsustainable investments, those not financed by genuine savings. Government pumping more money into the economy would merely prolong the agony. The quickest cure would be for people to save more, to bring about a recovery in private investment. Richard Kahn records that this lecture was received in total silence by Hayek's Cambridge audience. To break the ice, Kahn asked: ‘Is it your view that if I went out tomorrow and bought a new overcoat, that would increase unemployment?’. ‘Yes’, Hayek replied, turning to a blackboard full of triangles, ‘but it would take a very long mathematical argument to explain why’. Lionel Robbins, at that time a fellow Hayekian at the LSE, argued that the slump was not the disease which needed cure, but the cure for the previous disease of over-expansion of credit. The wasting away of the patient was simply the removal of layers of blubber caused by years of riotous living. (This is his explanation in *The Great Depression*, 1934).

Once the slump had started, Keynes conceded that the stability of the price index in 1927-8 had concealed a ‘profit inflation’. He now argued that speculation in real estate and stocks had masked a more general tendency to underinvestment in relation to corporate savings. Reserve accumulation by US companies before 1929 for plant which did not need replacement was on ‘so huge a scale’ that it was ‘alone probably sufficient to cause a slump’.(CW,vii,p.100). Once financial markets had collapsed, what he called ‘psychological’ poverty set in and people stopped spending.(CW,vi,176-7).

The Achilles heel in Hayek’s position was that his remedy of Nature’s cure was politically unacceptable. But it was also analytically incoherent, as Piero Sraffa pointed out, in a devastating review of *Price and Production* in 1932. Sraffa singled out for attack Hayek’s claim that a structure of production built on credit was less stable than one built on voluntary saving. Credit creation, he argued, produced an increased flow of voluntary saving on the part of those who received credit facilities. So there would never be a shortage of voluntary saving. Thus Hayek’s account of the genesis of the slump collapses. Admittedly, Sraffa's argument is incomplete, since, like Keynes at the time, he assumed full employment, and thought of credit creation as redistributing income from wage earners to entrepreneurs. But this was Hayek's line, too. Sraffa was accepting Hayek's assumption, and making a nonsense of it.(P Sraffa,'Dr Hayek on Money and Capital', EJ March 1932.)

The mess both Hayek and Keynes (and more generally economists of that time ) had got themselves into can be seen in Keynes's suggestion that his and Hayek's theory occupied different domains, Hayek's being a theory of dynamic equilibrium, marked by fluctuations in the 'natural' rate of interest, while his was a disequilibrium theory dealing with the case where the market rate departs from the 'natural' rate. (CW,xiii,252-4) The Austrian theory, as explained here by Keynes, is the precursor of the 'real business cycle' theory which has recently been much in vogue. Keynes, as we know, extricated himself from these muddy waters by replacing the 'natural rate of interest' with the theory of effective demand and a unique full-employment equilibrium with the possibility of 'under-employment equilibrium'.

As Nature's cure failed to produce recovery, Hayekians deserted to the Keynesian camp. Robbins's recantation was the most poignant: He conceded that, whatever the validity of Hayek's explanation of the origins of the slump in terms of overinvestment, its 'sequelae…were completely swamped by vast deflationary forces; The 'cure' was 'as unsuitable as denying blankets and stimulants to a drunk who has fallen into an icy pond, on the ground that his original trouble was overheating'.(Robbins, *Autobiography of an Economist*, p.154)

In the aftermath of the Depression, Hayek himself came to abandon his earlier Walrasian framework, never accepting its perfection at the hands of Arrow-Debreu and Robert Lucas. He no longer had cogent arguments to put up against either Keynesian theory or Keynesian policy. What kept him out of the Keynesian camp was a fear of inflation, and a hatred of central planning. Whereas Walrasian 'tattonement' had suggested the image of a central computer equipped with full information about prices and preference, Soviet central planning conjured up for him a nightmare system of total control, which imposed on society the arbitrary decisions of the central planner. His theory of inescapably dispersed knowledge was designed to prove the theoretical, but not practical, impossibility of central planning. In other words, he rejected the equilibrium method, in both its free market and central planning guises, but had nothing very solid to put in their place. Economic freedom was best, even though the results were far from perfect.

iv.

I want to conclude this paper by looking at the Hayek-Keynes debate in the context of the history of economic thought.

The debate between them on the causes of the Great Depression have resurfaced in the efforts to explain the Great Recession of 2008-9. Essentially the debate turns on the picture, or model, of the economy in the minds of the protagonists. For those who believe that the market economy is optimally self-regulating, a collapse of the kind we have just experienced can only be due to externally inflicted wounds. This is the setting for the 'money glut' explanation. The argument is that loose monetary and fiscal policy enabled Americans to live beyond their means. In particular, Alan Greenspan, chairman of the Federal Reserve Board in the critical years leading up to 2005, is said to have kept money too cheap for too long, thus allowing an asset bubble to get pumped up till it burst. The alternative ‘saving glut’ thesis is derived from the Keynesian view that slumps are caused by ‘saving running ahead of investment’. The origins of the crisis lie in a pile up of saving in East Asia insufficiently offset by new investment in the USA. Asset inflation which enabled debt-fuelled consumption is common to both stories, but whereas the first sees overinvestment (or malinvestment in Hayekian language) as the culprit, the second puts the blame on excess (Chinese) saving not sufficiently offset by ‘real’ investment. In Martin Wolf’s words, the problem was more an ‘investment dearth’ in the west than a ‘saving glut’ in the east. Whereas the first story stresses the mismanagement of monetary and fiscal policy, the second emphasises the inherent volatility of investment. It divides those who believe that a market economy is cyclically relatively stable in the absence of monetary ‘shocks’ from those who believe it is cyclically relatively unstable in the absence of publicly-supported investment. The assertion of the latter, of course, was the main point in the Keynesian revolution.

The debate on policy turns on the outcomes one’s models suggest. That is why ‘realism of assumptions’ is to me a key requirement of effective model building.. Models which assume reliable and complete information about future events are hard-pressed to explain the recent financial collapse. This is not so with Keynes. Keynes made a crucial distinction between risk and uncertainty. Risk is when probabilities can be known (measured); uncertainty exists when they cannot be known (or measured). His original insight was that the classical theory of the self-regulating market rested on the ‘tacit’ epistemological claim that market participants have reliable information about future events. Grant this, and the full employment assumption follows; deny it and it collapses. Keynes’s economy, on the other hand, is one in which our knowledge of the future is ‘usually very slight and often negligible’ and expectations are frequently subject to disappointment. (CW,vii,194,293-4) This renders investment ‘a peculiarly unsuitable subject for the methods of the classical economic theory’. (CW,xiv,113) Models which assume that we have calculable probabilities are irrelevant to the actual working of economies.

Keynes’s view that uncertainty about the future is the root cause of financial crisis may be contrasted with today’s conventional view that the recent banking collapse was caused by the ‘mispricing of risk’. Behind this lies the notion that risks can be correctly priced , but that markets were impeded from discovering these correct prices by information or incentive failures. The key to the prevention of further crises is therefore better ‘risk managment’ by the banks and by the regulators: more transparency, better risk models, and above all better incentives to evaluate correctly the risks being run. There is no questioning of the view that investments can, in principle, be correctly priced, and expectations will, on average, be fulfilled. The argument seems to be between those who say risks are always correctly priced on average –the efficient market theorists - and those who concede that exogenous shocks, imperfect information and/ or the wrong incentives can cause market prices to deviate from the correct prices given by ‘fundamentals’.

For policy, economic models matter. Our challenge is to develop a model of the modern macro-economy which takes uncertainty seriously.