Module 4

Lecture 29

Topics

4.3 Keynes and the Cambridge School

4.3.1The critique of the IS-LM representation of Keynes

- The version of Keynes presented in the last lecture (i.e. the IS-LM model) is taken from Hick's famous article Mr. Keynes and the Classics – the suggested interpretation. Keynes in his writing was trying to explain prolonged unemployment as a failure of the market. In doing so he devised a model (not in explicit formulation) which diverged from the classical model in two fundamental ways – first, unlike the classical system there was no dichotomy between the money and real system, and second, Say's law was discarded. Classical theory was assuming away the problem of aggregate demand by using the Say's Law. In Keynesian analysis, the money rate of interest equating demand and supply of money is the key variable.

- The way Hicksian interpretation was formulated suggests that the unemployment arises in the Keynesian system because during the recession the rate of interest hits the floor making it impossible for the market to clear. Hence, one logical implication of this formulation is that general unemployment is linked with some kind of price stickiness (this could be of wage, prices or rate of interest). This forms the basis of New-Keynesian macroeconomics which we will review in the next few lectures. But this interpretation also makes the Keynesian analysis essentially a short run analysis.

- In this lecture we will discuss the view of the economists belonging to the Cambridge School who were students and colleagues of Keynes in Cambridge. They were critical of the Hicksian formulation of Keynes and extended Keynesian analysis by focusing on the uncertainty and instability of the capitalist system.

- The Hicksian analysis essentially reduces the Keynesian analysis to a short run analysis as in the long run price stickiness is expected to disappear. Cambridge school critiques this view as a reductionist approach which overlooks the main insight of Keynes. We start by asking the question: did Keynes think his analysis to be a short run one?

- Keynes in his Tract and Treatise on Money wished to analyze and prescribe policies for the short run as *in the long run we are all dead*. However, in the Treatise on Money Keynes talked about long period shocks and their effect on output and employment.

- In his landmark work General Theory, the implicit guilt feeling was completely gone and he started emphasizing on the short period as he established the importance of analyzing short period in its own right. This position was further reinforced by the work of his favorite student and now colleague Richard Kahn, whose King's College fellowship dissertation "The economics of the short period" established the importance of analyzing the short period.

- In the classical theory, price was determined by the quantity theory of money (QTM) and supply and demand being created by supply. Hence, demand and supply were not two independent systems. But Keynes discarded both QTM and Say's Law and that is why he needed a supply curve to pin down the general price level. He used the Marshallian short run supply curve which is upward sloping. Some of his close colleagues – Roy Harrod, Kahn, Austin and Joan Robinson, Gerald Shove and PieroSraffa – started developing the theory of imperfect competition. But this did not have much influence on the Keynesian theory as the degree of competition was not of central concern for Keynes.

- The colleagues of Keynes in Cambridge never approved of the IS-LM formulation of the Keynesian theory. Kahn and Robinson were particularly hostile against it. They maintained that the essence of the Keynesian system lied in the fact that how the uncertainty embedded in the capitalist system led to economic crisis even if individuals are taking sensible micro decisions. They argued that the IS-LM model failed to capture the essence of the Keynesian theory reducing it to a mechanical set of equations.

- However, many close allies of Keynes adopted the IS-LM model in essence for explaining Keynes. IS-LM model for them seems to capture the basic insight of the Keynesian theory even though it has its own limitations. One such limitation is that the IS and LM may not be taken independent of each other. Some parameters underlying one relation also affect parameters underlying the other. This leads to Keynes shifting equilibrium model and finally to the modern analysis of path dependence. This dynamic setting is missing in the IS-LM which only looks at the comparative static analysis of the policies.

- Even though a group of Keynesians dispute it, most of the close colleagues of Keynes regarded Keynes' model as a short period one. Keynes was mostly concerned with the employment creating effects of investment expenditure (which is a short run phenomenon) ignoring its capacity creating effects (which is a long run phenomenon). In war time Keynes' ideas helped the British economy go through without major inflationary pressure. This was made possible by Keynes' inflationary gap analysis.

4.4 Keynesian Economics Growth and Distribution Contribution of Some Major Cambridge Economists

4.4.1 Kaldor and Robinson

- After the World War II, many close associates of Keynes looked at the long run instability problem of the capitalist system. Stimulated by Harrod's seminal writing on growth, Kahn, Joan Robinson and Sraffa started extending the general theory to the long period. Nicholas Kaldor and Luigi Pasinetti joined the band afterwards.

- They started from two fundamental problem of growth proposed by Harrod. First, the divergence between warranted rate of growth (g_w) and actual rate of growth. The warranted rate of growth is the rate that comes from the sustainable rate of accumulation. But if the actual rate is any different from the warranted rate, the actual will steadily diverge from the warranted rate. Second, identifying the forces that could bring g_w and g_n together. The natural rate of growth (g_n) is the rate of growth determined by the supply potential of the country which in turn is a function of the macro labor supply function. Harrod assumed that natural and warranted growth rates are independent and there is no reason why they should be equal.

- Cambridge economists who took up the task of extending *General Theory* in the long run tried to solve these two problems. Remember that their solutions were based on the Keynesian approach and were very different from the Neo-classical approach proposed by Solow who solved the problem by assuming neo-classical production function. Among the post-Keynesians, we discuss Joan Robinson and Kahn on the one hand and Kaldor on the other, as they adopted two very different approaches.

- Kaldor called his approach Keynesian because he found it in the *Treatise of Money*. Kaldor argued that in the long run an economy would grow at the full employment g_n. If that is not happening because the economy were not saving enough so that the accumulation corresponding to g_n could not be achieved, the gap between planned investment and saving would change the distribution of income. This will happen because prices change more rapidly than wages and saving propensity of the capitalists are higher than the workers. Hence, unlike the IS-LM approach the equilibrating factor is not the rate of interest but the income distribution.

- Kahn and Robinson developed their arguments in two stages. First they examined the properties of Golden Ages which were similar to the steady state in the Neo-Classical growth models. These states were not to be realized in reality but developed as the benchmark cases. They identified several properties of Golden Age under different conditions. Some of them showed desirable properties while some of them showed undesirable ones. One of such undesirable states was termed *Bastard Golden Age* as it showed sustained unemployment of labor.

- Kaldor used steady state analysis in explaining the stylized facts – regularities in data that required explanation. During 1950s Kaldor wrote “Alternative Theories of Distribution” which was a hybrid between Keynesian and the Classical. One major breakthrough he made was in characterizing the technological progress. He refused to accept the Neo-classical characterization where technological progress would mean shift of the production function and how this was distinguished from capital deepening or along the curve movements. Kaldor argued that new accumulation would also imply technological progress as it would carry with it the new ways of production.

- Kaldor thought that the problems of steady state growth arose from the lack of consistency between growth of the availability of primary products and the growth of the absorptive capacity of the industrial sectors. He thought that a multi sector model was needed to deal with the complementarities of factors present in the real world.

- Another very important contributor in this area was PierroSraffa whose contribution was separately discussed in a later chapter. Next, we look at some of the important post Keynesian's contribution.

4.4.2 Luigi Pasinetti

- Luigi Pasinetti was one of the main and early proponents of post-Keynesian theories. He mainly contributed to five major areas, viz. Ricardo and classical political economy, capital theory, income distribution and growth theory, structural dynamics and vertical integration, and pure labor theory of value.

- Here we discuss his contribution in the income distribution theory which has direct implication for Kaldor's and Keynesian theories. He started by critiquing Kaldor's approach that two saving rates exist: one for capitalists and one for workers. He showed that the equilibrium rate of profit is totally determined by the capitalists' rate of savings and the rate of growth of the system. He showed that $P/K=n/s_c$. This is also known as the *Pasinetti Theorem* or the *New Cambridge Equation*.

- This solution allowed the post-Keynesian School to resolve a number of theoretical problems. i) it resolved the Harrod-Domar dilemma by specifying an aggregate saving ratio which is determined by rate of growth of population, capital output ratio and capitalists propensity to save. (ii) His theory determined the income distribution and the long term rates of profit. (iii) His theory also provided a theory of wage determination consistent with the classical and neo-Ricardian models. (iv)It provided insight in the process of capital accumulation.

- Because of Kaldor and Pasinetti's contribution, post-Keynesian distribution theory occupied a central position in macroeconomics during 1970s-1980s. New advances in this line also looked at the various interesting possibilities including the impact of interest rate differential for different classes, theories related to life cycle hypothesis, and the long term properties of the distribution of wealth and of the income share of different classes.

- One major contribution of Pasinetti was to look at the problem of technical progress differently from the neo-classical treatment. In the ne-classical treatment, technological progress is like a shock that shifts the production function. We have already seen Kaldor's objection to this approach as he argued that using more capital (i.e. movement along the production function) also implies technical development. Pasinetti on the other hand, adopted a vertical integration approach where the dynamics of technological development can be understood. He divided the whole economic system in many vertically integrated sub systems. It allowed him to look at the dynamics of the systems and overlook the interactions of an input-output system. It also focused on the dynamics of the system proposed in the *Wealth of Nations.*

4.4.3 Michael Kalecki

- Kalecki was one of the most important thinkers of the twentieth century who was contemporary of Keynes and proposed a theory of business cycle which, even though was based on an approach different from Keynes, produced results similar to the Keneysian economics.

- In a series of paper published in Polish between 1932 and 1935 Kalecki presented his ideas about business cycle which are quite similar to what Keynes wrote around 1936. This forms the basis of the claims that it's Kalecki and not Keynes who pioneered the analysis of aggregate demand problem. Kalecki's key ideas include the importance of investment behavior in determining aggregate demand which in turn plays a role in determining the level of economic activities.
- At the time the General Theory was published Kalecki was in Sweden. When he realized the importance of Keynes' idea for his own research, he travelled to England and made contact with Keynes, Joan Robinson and others.

- After the war, he was appointed deputy director of a section of the economics department of the United Nations secretariat. In response to McCarthysim sweeping the U.S. in the 1950s he resigned from the U.N. and went back to Poland. For the rest of his life he stayed there and played important role in the centralized planning in Poland.

- In his analysis, Kalecki made distinction between developed capitalist, socialist and developing countries. In his view, capitalist economies are demand constrained, while socialist ones are resource constrained. On the other hand, developing countries face shortage in capital equipment.

- In his writing on capitalist economies, he identified investment as the main factor causing volatility in the system. He maintained that consumption is determined by income while investment is more of autonomous nature. In a closed economy ex-post savings are equal to the investment. But he saw investment causing savings. Firms make investment plans for some future time periods and savings have to adjust to that so that national income identity is maintained.

- Now, profits are the main source of savings. In the classical savings function (where all profits are saved and wages are spent on consumption. Hence, *ex post* profits are equal to investments. At the aggregate level Kalecki saw the causation running from investment expenditure to profit. He reasoned that investments come from internal or external funds. External funds are costly to acquire. Hence, investments mainly come from internal funds which mostly comprise profit. The cost of borrowing external funds is captured by the rate of interest. Hence, if the firms want to invest more than their profit, they have to borrow money from the financial institutions. The market of loans equilibrates through the movements in the rate of interest. From a firm's perspective, the return to capital is the rate of profit while the cost of borrowing fund is the rate of interest. In neo-classical economics, these two are equal in the long run. Kalecki argued that they are not necessarily equal. The rate of interest is more stable than the rate of profit. Hence, whenever there is a positive shock to the rate of profit making it diverging from the rate of interest, there will be a surge in investment.

- Hence, the main determinant of fluctuation, according to Kalecki is the change in the rate of profit. But why does the rate of profit change? It changes if the bulk of profit changes more than the stock of capital changes. He identified two reasons for this to happen: either because of fluctuation in the level of output or increase in the degree of monopoly power of the firms.

- He diverged from the standard neo-classical assumption of perfect asserting that in reality most of the firms are oligopolistic with some market power. Hence, they charge a price by adding a mark-up above the marginal cost. The mark-up depends on the degree of monopoly power which in turn depends on several factors such as the number of rivals, the cost of entry into an industry, degree of collusion among the existing players etc.

- The degree of concentration determines prices which in turn affects the real wage. According to Kalecki the aggregate demand problem comes from the fact that worker's too less to save which in turn can be converted to investment. Hence, his main policy prescription was to turn the income distribution in favor of the workers. His main policy prescription was demand management through tax-subsidy policy. He viewed that without government intervention it is impossible to maintain full employment in a capitalist economy. But prolonged government intervention can change the economy from capitalist to socialist which in turn can generate political resistance against tax-subsidy policies.

- Besides analyzing the problem of capitalist, Kalecki also devoted much of his work for setting the priorities in a centralized economy such as Poland. Most of the East European planning strategies placed much emphasis on heavy industrialization which led to curtailment of current consumption. Kalecki always favored keeping a balance between current consumption and investment funded by forced savings. This often brought him into conflict with the Polish planning commission.

- The importance of Kalecki lies in the fact that he approached the problem of aggregate demand in a way similar to Keynes and also suggested solutions such as tax-subsidy based policies. But more importantly he brought the issue of class by bringing the critical importance of income distribution. Moreover, he (along with other Cambridge economists) made a significant step by discarding the perfect competition assumption and started developing macro theories based on imperfect competition models.