History of Economic Theory

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Keynesian Revolution: Macroeconomics

In the next two hours, I intended to talk to you people about the revolution which the advent of Keynes engendered in the subject. This revolution resulted in a subspecies as it were of the subject which we came to refer to as macroeconomics. The word macroeconomics itself and the crediting of Keynes, as the founder of macroeconomics itself should probably be attributed to Paul Samuelson who wrote about it at some time. Be that as it may what is of interest to us is to note that macroeconomics as we know today came into existence with the writings of Keynes. In particular, his general theory which he wrote in 1936.

Now, what is important is to see that there is a switch of universals here. I am referring to universals here because that has been our preoccupation from the beginning of my lecturing you in this particular course. From the beginning I have been trying to tell you that the evolution of theory or call it transformation of theory has to do much with the way the subject has specified universals with reference to its theoretical preoccupations. For example, at the time of the Greeks, we recall that the universals concerned economics not as a subject with a very large scope, but only with a scope of the household.

Philosophers at that time were concerned with larger issues of metaphysical nature. As well as scientific nature in which their point of reference was fundamentally the universe. Economics was a small subset of all this at that time. So, the universals of economics were basically the universals of households at the time of the Greeks and that is how Aristotle was writing about it if you may recall. Subsequently, with the rise of Christianity more importantly with the rise of the church and the churches approach to knowledge and the churches approach to the control of knowledge there came about increasingly predomination of faith rather than enquiry and speculation as was the time, as it was in the time of the Greeks.

We also saw that by the time of saint Thomas Aquinas, there was a reemergence of focus on Greeks, but within the framework of theological concerns of the church. So, that the moral implications of the churches theological concerns became important in the way the universals of economics got defined under saint Thomas Aquinas and also under the rest of the scholastics. We saw for instance, that the concern was still with the household as it was with Aristotle. We also saw for instance that the concern involved a certain moral questioning on how profits are to be made and secondly whether (()) could be considered as a legitimate source of earning ones livelihood. These were concerns partly Pre-christian and Aristotelian and partly Christian too.

Whatever, the universals in economics at that time still restricted themselves to the household. It is after this that the scope of economics particularly the universals in economics widens. We saw for instance, that with the advent of commercial revolution in Europe with the rise of modern nation states. We found that the nation becomes the concern of economic thinking more importantly the strength and power of a nation vis a vie other nations becomes the concern of economic thinking. This was mercantilism, where the interest of the class of mercantilists or class of traders or merchant capital became identified with the interest of the nation.

So, we had the universals of mercantilism which involved much wider scope, which involved the nation state, which involved the country. This is was a first time economic thinking preoccupied itself with the nation, the country. Subsequent to the mercantilists, the welfare of the country became defined not in terms of its power vis a vie the other countries. The welfare of the nation got defined not in terms of its economic or political strength vis a vie other nations, but in terms of other considerations on how efficient the system was and how division of labor rising productivities specializations led to prosperity?

In other words, the focus shifted from the nation state to the economy at large to the industry, to agriculture, to services and so forth such that when there is a free intercourse across the economy when exchange happen freely in an unrestricted fashion. It was believed that there was welfare. Now, this was a shift in the universals certainly from the time of mercantilists. And the shift was no longer in relation to the nation or country or the state, but the shift thus was essentially in terms of efficiency. What led to greater prosperity was greater efficiency.

So, this concern with efficiency of the system was central to the concerns of Adam smith. So, the universals take a big switch at the time of Adam smith and subsequently, his followers notably J B Say, Leon Walras and so forth created a theoretical system which emphasized not just efficiency on, but on the morality of its achievement. Both of them developed strong theoretical ideas which showed how this efficiency was almost guaranteed. If you guaranteed freedom of economic enterprise and freedom of the individual to transact as an how he or she wished to transact.

We have seen yesterday for instance how these notions of efficiency led to two types of theoretical preoccupations. We saw how it could be either through partial equilibrium analysis or through a general equilibrium analysis. Both of them showing very clearly that theoretically, once freedom of enterprises guaranteed, also was guaranteed the efficient resolution of the economic problems through the market mechanism. So, in a sense this was a theory which justified Adam smith's claim. There are that freedom of enterprise, freedom, uninterfeared freedom of the market was central to prosperity.

So this was the Smithian view point, Smithian universal which persisted right through up to the time of Neoclassicals Marshall and beyond. As I mentioned yesterday, the advent of Keynes change a lot of this. The universals went through a dramatic transformation and that is what we have here to see today. As I said Keynes is recognized as a founder of macroeconomics. In contrast with partial equilibrium analysis which is concerned with microeconomics.

So, the first paradigm switch which Keynes generated was with respect to the concern or the universals of the economist. The universals no longer concern themselves with how individual choice problems where resolved as indeed Marshall in economics was all about. But with aggregate situation of consumption, of investment, of saving, of balance of payment, the behavior of the government and so forth, all at the aggregative level. This shift of preoccupation to the aggregative level was the shift to macroeconomics in contrast with preoccupation with individual markets individual economic actors and so forth which was the preoccupation of microeconomics. So, the universals certainly take a big big shift.

The second major shift of Smith, I am sorry of Keynes was in moving away from the Smithian belief that laissez faire market mechanism, uninterfered with was the source of efficiency prosperity and therefore, welfare. Keynes introduced the notion that the market mechanism has its own hick ups. Sometimes much more than hick ups, sometimes serious problems and sometimes problems which are chronic. In other words market mechanism itself might need occasional or sometimes not very occasional, but on a more permanent basis nursemaids and these nursemaids where nothing other than the instruments of policy by the government.

This relationship between the government and the market is something which gets defined through economic theory for the first time in Keynesian economics. Keynes does not deny that markets are efficient, but he certainly would like to add that markets are certainly not efficient all the time. And that markets do get into problems and when they do, they need to be pulled out of the problem through government policy. So, he is thinking of a very proactive interventionist government as opposed to laissez faire. This is second big shift in the universals in economics.

So, what is the context? What is the historical context for this paradigmatic shift or the shift in the universals for the rise of Keynesian economics? Historically speaking, we can trace the events to two phenomena. One the rise and fall of gold standard and the rise of unemployment. The rise of gold standards can be in the second half of the 19th century, but the crisis and fall of gold standard occurred in the 1920s. And the problem of unemployment is something which was a critical feature of not just United Kingdom, but the whole of western universe during the 1930s. In order to see how these historical phenomena led to the rise of Keynes, we must go back to the question of automatic adjustments which was implicit in the economics of both Say and Leon Walras. It was believed that there were possibilities of short short run fluctuations in the market where there might be excess demand or excess supply or short run market failures due to stochastic factors. Principally on the side of demand, but could also occur on the side of supply.

However, it was important to note as we did yesterday that the existence of wage and price flexibility in the economy. Both of them refer to in real terms not in monetary terms, the existence of such wage and price flexibility would lead to adjustments. For example, in a very typically J B Say type of scenario; suppose, a market suddenly develops excess demand due to some change in tastes and fashions and this excess demand tends to create a market failure. In this particular market which means there is excess demand which pushes the prices up.

When the prices are pushed up in this particular market, two things happen the producers have an incentive to produce more. So, they seek resources from other markets to be employed in this market. So, labour and all other factors of production become dearer in the production of this commodity because there is excess demand now for labor and other resources to be used in this industry. So, there is increase in wages. This let us repeat, there is rise in price which is followed by rise in wages which leads to the in migration of resources including labour into this industry. And increasingly as the as the production expands in this industry the prices start dropping and more importantly wages and other factor rewards starts declining.

Still such time as equilibrium is restored the old prices are restored; the old wages and other factor rewards are restored. So, here is a stochastic factor which came in and created a disturbance, but the possibility of flexibility of wages and prices leads to a reestablishment of equilibrium. Now, this is important, this is the automatic adjustment mechanism which is oft referred to in reference to classical economics or even newer classical economics.

Now, another things that was discovered was that in the case of gold standard as well as in the case of unemployment which hampered in the 1930s, the automatic adjustment mechanism in real life was seen to be inoperative. In other words, if there were macroeconomic full employment equilibrium situations prevalent at some points in time. Shift in the parameters of the system which cost a shift in market clearing in some parts of the economy, resulted in disturbances which was not cleared, which were not cleared by automatic adjustment mechanism. Classical macroeconomics was found to be at fault and the question was what policy should be used?

So, let us look at these two gold standard and unemployment in some detail to understand this policy impasse. We all know that goats gold standard was the basis of monetary system from the third quarter of 19th century across western Europe and united states. Countries defined their money supply as a function of the stocks of gold which they possessed. So, if a country had x tons of gold then it would value its money in terms of so many dollars or so many pounds, so many francs, per ounce of gold and then determine what the money supply was going to be.

So, the determinant of money supplied was gold rather mercantilist, is not it? because that is how the mercantilists were thinking, the Bolinas were thinking couple of centuries earlier, but now, this is a new situation this is gold standard 19th century. So, what happens? Gold standard was an attempt to ensure that there was balance not only in the balance of payments, but also within the country in terms of monetary and price stability. Let us consider an example, but in order to know this example we should know what is called purchasing power parity? Purchasing power parity is nothing, but the consequence of gold standard in international trade and balance of payments.

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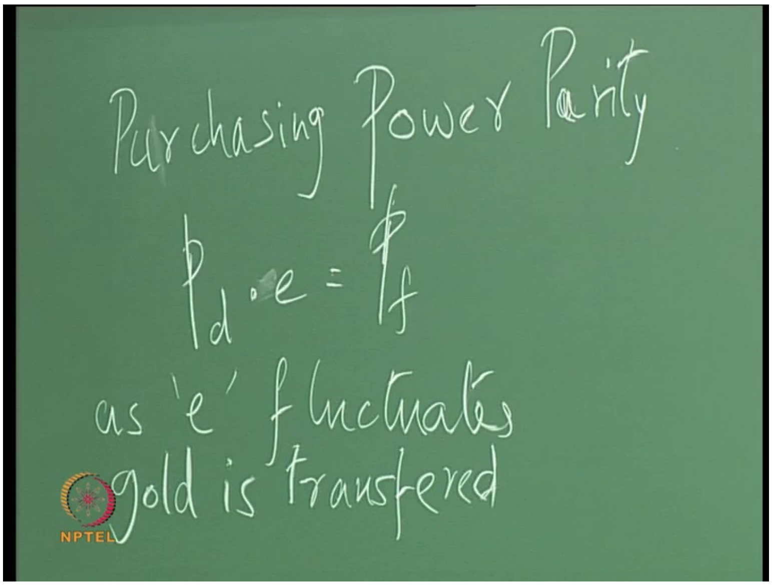

You can see that the equation is nothing other than this that the domestic prices times exchange rate will equal the foreign prices of commodities always. So, suppose there is a demand for the product of some country due to change in tastes let us say. Then the export sector of this country is encouraged immediately by this higher demand and this higher demand for its product is reflected in higher demand for the domestic currency which is needed to buy the goods of this country with. So, as there is demand for domestic currency it appreciates. So, e the exchange rate appreciates and the appreciation of exchange rate would then immediately mean that the foreign countries now, owe more to this country than this country owes to foreign countries, which means there is a transfer of gold from abroad to this country.

When there is a transfer of gold from abroad money supply in this country increases and as a result there is economic expansion. And more importantly gradually the prices of exports will rise and when they rise they lose their advantage in the market and foreign demand drops. Conversely, with the export of gold to this country money supply abroad drops. So, prices abroad drops and foreign products now become more competitive vis a vie these countries products in international trade. Their exports grow as opposed to the export of this country which are dropping in short. Purchasing power parity is the principle which ensure that under the gold standard fluctuations in exchange rate would enable balance of payment equilibrium. What is important here is to note that balance of payment equilibria were also seriously a part of the domestic equilibria because the rise and fall of particular sectors in the economy is also connected with the equilibrium in the domestic market.

So, in an open economy model, equilibrium in the balance of payments was invariably connected with equilibrium in the economy as a whole. Now, gold standard therefore had this very valuable adjustment mechanism in terms of exchange rate fluctuations and gold transfers across the country which enabled to restore equilibrium again. Along with purchasing power parity another implicit rule which was followed by all countries dealing with gold standard was a rule called interest rate parity. Because either gold could transfer from countries which were having a deficit in trade or you could think in terms of an opposite which is capital transfer. For instance, if I have a deficit in trade then I either export gold to buy foreign exchange or my trade deficit is covered by capital transfers from abroad which increases my purchasing power and therefore, starts pushing me towards equilibrium.

Now, capital transfers are also therefore, equilibrating forces in balance of payment. Capital transfers are therefore possible if interest rates permits such transfers. Capital transfer from abroad will happen into this country if domestic interest rates for instance are higher than foreign interest rates. But then as capital starts moving into these country domestic interest rates will start falling and will go on falling till such time as a interest rates across the world become equal and further capital transfers become impossible. In other words once again, just as exchange rate fluctuations was a crucial adjustment mechanism. Interest rates fluctuations also leads to adjustments in the capital transfers across the world.

So, there were two important rules which were parts of gold standard. One was purchasing power parity, another was interest rate parity and both were very crucial in enabling gold standard to perform as an equilibrium system across the world. Now, in historical terms almost till the end of 19th century or in fact till after the end of 19th century there was really no substantive problem with gold standard. It seem to work quite well, in fact it seem to white work quite well with Britain as the world leader in both trade and therefore, in money supply and finance. Gold standard seem to work quite efficiently till the Ist world war. Now, another things that war does one of the things that war does is to force governments to spend money.

They have to spend money on arms, equipment and other requirements of the fighting forces. And not to mention recruitment of fighting forces which involves higher wage bill and salary bill to the government in expansion of the army and auxiliary support units. In short, war always means enormous government spending. It is impossible to think of any government which can tax the population adequately to meet this enormous expenditure. It would be economically unwise, for the simple reason that sudden hike in taxes to meet war time expenditure would punish a large part of the population. Post tax incomes might drop so dramatically that the economy might go through a contractionary movement which is not good.

So, economically a sudden hike in taxes may not be advisable, but more importantly a sudden hike in taxes would not be advisable politically. The economy is already facing a war people are facing war time crisis and on top of it if the economy is pushed into a contraction higher taxes, the government might simply be voted out. That is the political risk involved. So, for political and economic reasons a sudden hike in government expenditure cannot be met with the sudden hike in taxation. No way. So, an expenditure hike by the government stays and if the war goes on as a dead in the case of the Ist world war for 4 or 5 years. It is an accumulation of government deficits year after year after year.

Perhaps on an increasing scale as it did in the case of the Ist world war and Britain. So, that the government was pushed into spending enormous amounts of money, but the time the war ended money supply in Great Britain was substantially higher than money supply prior to the war. Now, how does the government increase money supply? It brings money. So, the government simply expanded money supply to finance the war, to finance the deficit due to the war, during the Ist world war. But, then what happens to gold standard, the British pound was clearly specified in terms of so many pounds has money supply precisely because the gold stock with Britain was fixed and limited.

So, if the gold stock was fixed at the pre war levels and if money supply expands due to meet the war time contingencies. It now means that the actual money supply was much higher than the money supply permitted under gold standard. In short, the British pound becomes overvalued in gold terms. This is what happened by 1920 in Britain. So, immediately there was a problem of crisis in balance of payments, exchange rates and so forth because the British pound was simply overvalued. There were too many pound notes around that were not permitted by the stock of gold in Britain.

So, the British government set about a policy of revising its approach, it set about a policy of restoring gold standard. Now, one of the persons who opposed this was John Maynard Keynes. Keynes was of the opinion that such restoration was not possible, it was bound to fail because he said adjustment to post war conditions required large scale adjustments in the demand, in investment levels, saving levels and money supply. In Britain, it is not question of a simply restoring gold standard which turned out to be true. However, the factors, the attempts at gold standard restoration failed. The monetary system of Britain collapsed and the monetary system across the world collapsed. So, the 1930s was a period of international monetary chaos.

Countries were devaluing and counter devaluing on almost on war time basis to protect their currencies, to protect their economies. So, that by the end of the 1930s, there was a critical need felt across the world that there was more sense, more rationality, more reason needed across the world than what existed in the 1930s international monetary scenario. So, the crisis over gold standard was one thing that brought Keynes in thought into prominence and note this the crisis over gold standard happened simply because of a huge stochastic factor which was government spending during the Ist world war. And more importantly there was no way in which any automatic adjustment mechanism could solve the shock created to British economy by this huge stochastic factor.

In short, adjustment mechanism failed. So, the automatic adjustment mechanism was no longer automatic the market had lost the ability to swallow this huge bill digested and then to come back to normal. No, it did not. The second case of failure of automatic adjustment mechanism was in the case of unemployment. Now, unemployment was not just the feature of the 1930s. Unemployment was also the feature of the 1920s, mid 1920s when the crisis over gold standard and the crisis over balance of payment, the crisis over international exchanges, international capital transfers, all of these were leading to shrinking of the British economy unemployment.

The question at this time was how would the British government respond to this unemployment? Would the British government lead to a crash employment generation programme to bring employment levels to the old level? Or could the British government think of something else? The idea which offered itself most attractively was the idea of big public spending leading to rapid growth of unemployment; I am sorry employment in Britain. Now, this was immediately shut down by the advocates of policy in the British government. The view which was taken was a view which was called the treasury view which went like this. If the government went on to create mass employment programs, these programs would need funding.

And the funding would necessarily involve the government drawing money from the economy either through public borrowing or some such similar instrument. But if the government borrowed money from the public in the economy to fund its expenditure program, its public employment program. This money would no longer be available to private sector in the economy. This money would no longer will be available to private sector to invest in. So, investment in private sector would shrink. In short, expansion of government spending would lead simultaneously to shrinking of private sector investment. This would in turn mean that the government policy was counterproductive.

The policy until expansion of expending, expansion of employment, some kind of multiplier effect which would result in the growth of aggregate demand. However, all this could be negated by the simple fact that the money which the government drew from the public for its investment policy or program would be that much money which was not available to the private sector for investment. And therefore, expansion of government spending might be met with the contraction of private spending. In recent times, in the economics that is come into vogues since 1960s. This phenomenon is called crowding out.

It is argued that the policy of big government spending to create expansion of employment in the economy would simply crowd out private investment and lead to shrinkage of private investment. In short, if the government expands its spending and increases employment the private sector looses funds for its investments. So, private investments shrinks and private employment shrinks. So, the net effect might be zero, but at least the net effect could be that the expected results of employment increase may not happen through government spending because private contraction counters this. So, this crowding out was also known as the treasury view which was the view of the government establishment the treasury department in Britain which was strongly opposed to big time growth in public spending on employment to meet unemployment.

So, here is an impasse. What would the government do then? The treasury view says that you cannot send money because it leads to crowding out. At the same time unemployment is of critical dimensions. So, what would the government do? This is certainly a policy impasse. This was another reason why Keynes in economics was thrown up into prominents. So, let sum up the reasons which gave rise to Keynesian economics. The rise, but more importantly the fall of gold standard in the 1920s and the consequent crash of international finances and international monetary system was one factor which lead to the rise Keynesian economics.

The other factor was the failure of government policy instruments towards unemployment or simply the failure of government thinking in evolving a genuine valid policy towards unemployment simply because the treasury view thought that the government really could do nothing. The economy simply had to wait and recover on its own whatever the political and economic consequences. So, the economics of the Keynes which emphasized very strongly on spending in the economy and the role of the spending in generating equilibrium, in generating growth of employment, in redeeming the economy from unemployment became more and more crucial. It is time now to look at the premises with which Keynes was working his system.

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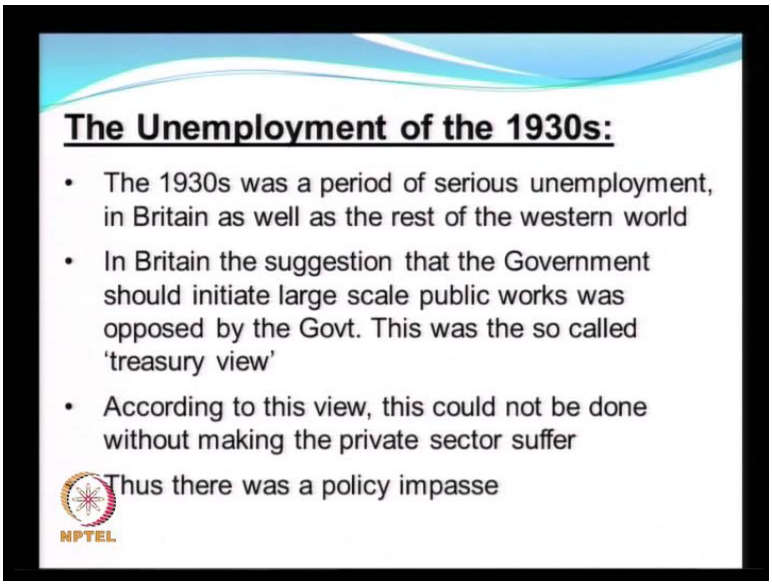

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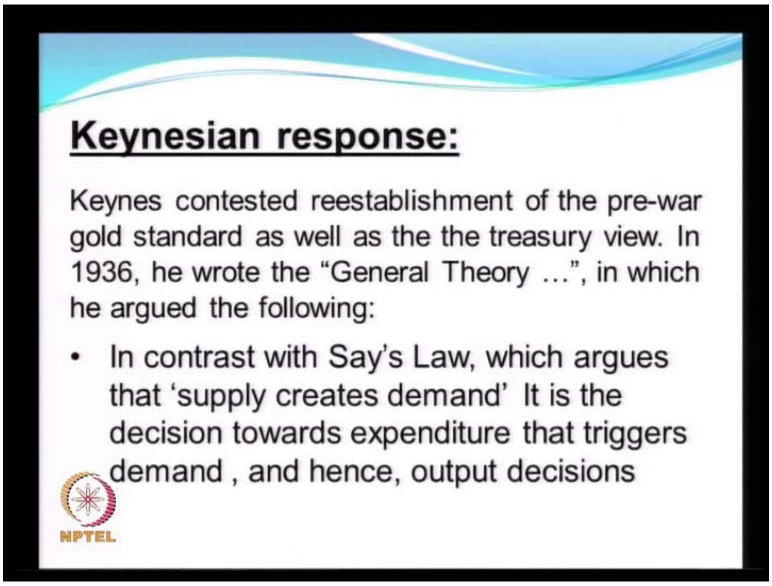

Keynes was talking about the feasibility of Say's law. The two things which Keynes was ideologically centrally impressed with were these. One that laissez faire was a permanent solution to the problem of fluctuations in the economy. That market and its adjustment mechanisms were sufficient enough to restore economy into equilibrium if there was stochastic forces which hit the economy and pushed it to disequilibrium. Keynes believed that the market mechanisms did not have the strength and capability to with stand such stochastic forces, one.

Second, Keynes also had a different thing to say about the Say's law. Now, most people who were critics of Say's law up to that time were people who were talking about the feasibility of automatic adjustment. They were talking about the feasibility of thinking about long term full employment equilibrium and so forth. Whereas Keynes, not talking about these things. Keynes says the heart of Say's law amounts to the statement supply creates demand. Now, when Keynes said this it had a historically important role to perform because even as I was a student in economics and subsequently as other students were being taught after the time and I became a teacher. It became a standard practice to refer to Say's law in the same way the supply creates demand. Although, Say was not saying this. It was Keynes's interpretation of Say's law which made such as statement possible.

So, whatever supply did not create demand according to Keynes. It is people's decision towards expenditure. How much should I spend now? Am I spending enough? Can I spend more? Would I like to spend more? In short, people's expenditure decisions were crucial in determining the level of aggregate demand in the system, according to Keynes. So, Keynes distinguished between two types of demand he thought of notional demand when he was thinking in terms of a say type of situation where supply creates demand, where the economy automatically adjusts itself. But in all other situations, Keynes was talking about the level of not notional demand, but about effective demand.

Effective demand is that amount of demand which is permitted by the limits on expenditure. If people spent more effective demand rose, if people spent less effective demand shrank. And people spending powers were influenced by what they earned. So, this was the foundation of Keynesian economics namely. It is not supply which creates demand, but which is the expenditure decisions which create demand and the coming into existence of effective demand leads to production and expansion of supply. So, supply responds to the levels of effective demand in the economy and that is about it. It is the other way round in contrast with conventional interpretation of Say's law. Next Keynes was also concerned with wage price flexibility.

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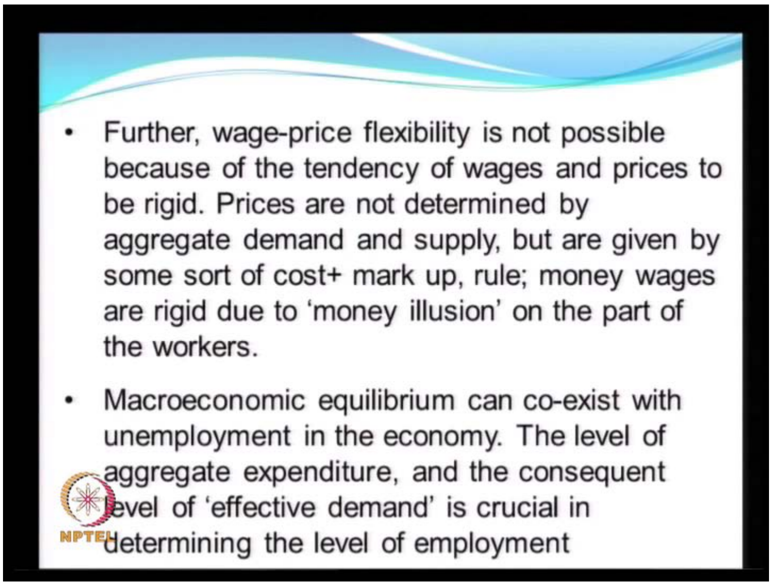

As we may recall wage price flexibility was a very heart of the adjustment mechanism in pre Keynesian economics whether neoclassical or classical macro economics. Now, Keynes argued that such wage price flexibility might not exist at all. There were two principle reasons why he argued this. First he said prices were not determined by some equilibrium between demand and supply aggregate demand and aggregate supply in the economy as was believed by classical and neoclassical economics. Keynes said the basis of price determination was purely the supply side cost to production was key factor and all producers added a mark up to cost of production which was actually the prices at which their products were sold.

In short, prices were not determined by equilibrium between demand and supply. Prices were not an instrument for the clearing of the markets as classical and neoclassical economists believed. No, prices were much more subjective in Keynesian system. It is the supply side which virtually fixed the price. All the producers in the economy estimated the cost of production added a little mark up to it and that was the market price. This is a completely different approach; this means that price flexibility was simply ruled out because whatever excess demand or excess supply the cost of production plus mark up process had nothing to do with these fluctuations. So, prices were rigid in the Keynesian system, equally wages were rigid especially money wages.

According to Keynes the workers suffered from what he called money illusion. Money illusion was a belief that any fall in money wages is harmful to me even if my real wages does not fall. We know for instance that money wage real wages are money wages divided by the prices. In short, they are the real component of wages and we also know that neoclassical and classical theory tell us about real wages being the determinant of labor supply and demand. Keynes said even if that were to be the case a fall in money wages is assumed by workers to mean the same as a fall in real wages. They do not interpret, they do not calculate, they do not deflate money wage reductions with price fall in order to understand some real wage estimates. No, workers mind works much more simply according to Keynes any fall in money wages is automatically assumed to be a loss of welfare by the workers and they do not want to work.

So, here is what Keynes called a money illusion in the labour market. Workers are influenced only by money wages and not implicit real wages in the system. Any drop in money wages immediately leads to non-cooperation from workers. The unions are very strong; they oppose any reduction in money wages. So, wages are rigid. So, here is such situation in the economy where wages are rigid and prices are rigid. And so, what happens to wage price flexibility as an adjustment mechanism? Such a mechanism simply does not exist according to Keynes, this is a second thing.

Third the very idea of equilibrium was reinterpreted by Keynes. Upto Keynes macroeconomic equilibrium was thought to be tantamount to full employment equilibrium. The economy would go through the adjustment process till full employment equilibrium is reached. So, the only valid equilibrium is full employment equilibrium, but Keynes says, people might plan expenditure which might be different from actual expenditure. In turn, this might mean the planned supply and demand might vary from actual supply and demand in the market.

Actual supply and demand in the market might occur either with full employment or with under employment. In short, at any point in time whatever is produced is sold is bought. So, it is a truism that there is a macroeconomic equilibrium in the economy, but it does not follow that this macroeconomic equilibrium is a full employment equilibrium. It might well be and under employment equilibrium.

So, Keynes transformed the idea of macroeconomic equilibrium to include not just full employment, but a number of under employment scenario. These three aspects of Keynesian thinking resulted in an new paradigm which later came to be known as Keynesian economics, more importantly as macroeconomics. We will see the rest after the break.