

Pre-Keynesian (1936) Macroeconomics

In this short note, I will explain some very profound ideas espoused by individuals prior to 1936 and the publishing of the *General Theory of Employment, Interest, and Money* written by John Maynard Keynes. One of these pre-Keynesian people was Keynes himself in 1930. The revolution in macroeconomic theory was a revolution for Keynes as well. It changed him considerably. Since 1936, which marked a turning point in the history of macro, we have all fashioned our ideas about the macroeconomy from Keynes, to a greater or lesser degree. One cannot avoid his influence. This note does not try to be comprehensive but will be an excellent overview of important ideas that existed prior to 1936.

The story of macroeconomics begins with David Ricardo and his *Principles of Political Economy and Taxation* (1817). The goal of Ricardo was to clarify the distribution of national income between three groups of people – workers, capitalists, and landlords. Ricardo believed that landlords would become increasingly wealthy at the expense of the other two groups. How would this occur? The workers would be paid a wage that would be held in check by natural increases in population. Like Malthus, Ricardo felt people would continue to have babies and add to the population even when times were hard. This would keep wages low. The workers who worked on the farms would not be paid very much. Some people called this the [Iron Law of Wages](#). On the other hand, capitalists managed the workers on the farms and rented the land they used from the landlords. They would do this and would get a profit calculated as the value of the output of the farm minus wages minus rent to the landlord. This residual was called profit. However, Ricardo reasoned that competition between capitalists would reduce profits since the capitalists would have to pay increased rent for the use of the land. The profits would be reduced to a bare minimum and therefore rent to the landlords would rise to a maximum. The landlords would receive the most from the working of the land. It is an interesting theory and was taught to all economics students up until the late 19th century. I might add that people today believe that Ricardo is a good example of a complex theory that is not supported by the facts. That is, Ricardo was wrong about most everything he wrote (except for comparative advantage and derived demand). The important point to remember about Ricardo's theory is that it was a theory about the distribution of the national income and not how big the national income would be. There is no discussion of what determined the overall level of national income – only its distribution to the three groups.

The next important person we can mention is Marie-Esprit-Léon Walras who wrote the important book entitled *Éléments d'économie politique pure* (1874). This is 60 years after Ricardo. Walras was French and he was intensely mathematical in his approach to economics. He believed that it was possible to model the entire economy as a series of supply and demand relations, with an important addition, the overall budget constraint. This constraint meant that any excess supply in one market would result in an excess demand in another market. All excess supplies and excess demands must balance themselves, since one cannot demand more of one thing unless one has too much of another thing. The whole economy was a perfectly detached thing and any distortion in one area would be transmitted to an equal and opposite distortion in another area. Walras reasoned that the only way that one could have a true equilibrium in the macroeconomy was for every market to be in equilibrium. ***Indeed, if there are N markets in the economy and $N-1$ of these markets are in equilibrium, then by Walras' Law, the N th market must also be in equilibrium.*** How would these markets reach such a perfect equilibrium? Walras claimed that markets would grope their way to a set of equilibrium prices. At these prices every market would finally reach a state of equilibrium. If prices were allowed to move and were flexible to change, then they would naturally move to a perfect set of equilibrium levels and there would be no excess demands or supplies in the economy anywhere. This was a real theory. It was general equilibrium since it was a model of all the markets in the economy, including money markets and labor markets. Walras is one of the first real exposition of modern macroeconomics. Few writers have done so much for economics. Yet, there was something deeply wrong with his model. It could not explain why that economies would periodically go into recession and be sluggish to recover. His markets were supposed to grope their way to a general equilibrium where there are no excess supplies of goods or labor. How could one explain prolonged periods of unemployment and poor sales? Walras was the perfect classical economists, relying on flexible prices to guarantee full employment and no deficient demand.

Our next important person in macroeconomics was Knut Wicksell. He was a Swedish economist who wrote at the turn of the 19th century and early 20th century. Wicksell produced an important and influential book called *Geldzins und Güterpreise*, in 1898. This is usually translated as *Interest and Prices*. Its publication had an electric effect on people. Wicksell was important because he explained a linkage between interest rates and the price level. His theory has become known as the *Wicksellian cumulative process*. How did this process work? According to Wicksell, there were

two types of interest rates in an economy. The first interest rate was called the *natural rate* and was the rate of interest which would not cause inflation or deflation. The second rate was called the *market rate* (or bank rate) of interest. Now if banks set the market rate of interest too low (below the natural rate) borrowers would rush to get loans and buy things. This borrowing and buying would be excessive and would drive prices higher since the natural rate is exactly where full employment is satisfied and aggregate demand is equal to aggregate supply. If the market rate remained below the natural rate there would be a tendency for prices to rise and then we would have inflation. Of course, it is possible to have deflation (or falling prices) also. This would occur if the bank rate is set above the natural rate. The natural rate is of course unseen. We do not have data on the natural rate of interest. Wicksell believed that the natural rate of interest would equate lending and borrowing at a level which would ensure no inflation and perfectly cleared markets. Wicksell had a wonderful theory, but it could not explain how the natural rate would be established. Keynes would later clarify much of this by explaining interest as the price that must be paid to hold liquidity, rather than Wicksell's classical idea that interest is the price that equates the loanable funds market. Keynes was certainly influenced by Wicksell's writings; but we have to conclude that 1936 Keynesian ideas on interest rates remain somewhat different from 1898 Wicksellian ideas on interest rates. Wicksell was still very much a classical economist. He was relatively unconcerned with depressions, unemployment, and the level of national output being produced. After the 1930s no macroeconomists could ignore these variables.

The next macroeconomist of note was a contemporary of Keynes. His name was Frederick Hayek and he was an Austrian. His work was called *Monetary Theory and the Trade Cycle* and was published in 1929. Hayek moved to England in 1931 and became the most famous competitor to John Maynard Keynes in business cycle theory. He engaged Keynes in a series of debates on macro-theory, but ultimately he lost the overall debate, although each side had become increasingly disinterested in the other side's ideas. The theory which Hayek proposed was one that blamed cyclical fluctuations on the adverse changes in money upsetting the rate of interest. Hayek followed Wicksell in believing in a natural rate. However, he took Wicksell further by explaining how that an artificially lower market interest rate (one below the natural rate) would generate too much investment from borrowers, especially in producer goods that were long-lived. This was understood to be mal-investment. Thus, all of the industries that served as inputs to the investment goods industry would feel an expansion from this "false" lowering of the rate of interest.

Employment would shift to these industries. Retooling and creation of productive capacity in particular types of investment goods industries would occur. The mal-investment would therefore upset both the trajectory and composition of the economy. It would be a false trajectory and composition since it was based on a false reading of the interest rate. The normal market signals one would expect from the interest rate would be calling for more and more investment of a particular type, even though this rate of interest was completely unrelated to people's saving for tomorrow. Business leaders looking at rates would expand investment beyond the level of the natural economy. For a while they would be fooled. This would eventually cause a collapse in investment when it is realized that such previous investments were "mal-investment" based on fake levels of the market interest rate. The whole economy would need to readjust back to a natural state and this would lead to a painful process known as the business cycle (or trade cycle in the vernacular of the 1930s). Thus, surges and contractions in the money supply would lead to a lowering and raising of interest rates above and below the natural rate, respectively. Mal-investment and mal-expansions of the industries feeding such mistaken investments would change accordingly. Only when the economy adjusted back would the cycle of false expansions and readjustment become clear. Hayek was somewhat different from classical economists since he placed great emphasis on highly unnatural and artificial movements in the quantity of money, usually by interfering central banks. His emphasis on the monetary basis of the business cycle was completely different than the classical ideas of the neutrality of money. One had to ask – is money really that important to the functioning of the economic system? Later we will find that Hayek's ideas were much better refined and extended by Milton Friedman. As we said before, Hayek was revolutionary in his reinterpretation of Wicksell, but ultimately, he failed in winning over the academic community.

The last of our pre-1936 macroeconomists is John Maynard Keynes, himself. In 1930 he wrote a *Treatise on Money* in which he sought to explain how that output and the price level were determined. Keynes was trying at this time to meld microeconomic ideas on prices to macroeconomic concepts like the equation of exchange. The equation of exchange with its income velocity of money ($MV=PY$) was well accepted and had been carefully discussed by the American economist Irving Fisher of Yale. Keynes was trying to create his theory of prices and output while retaining the equation of exchange as an important part of that theory. But, he knew that microeconomic theory emphasized marginal costs and profits in explaining changes in output and

prices. Keynes used profits, saving, and investment as the central elements in his theory. He observed that $\text{Profits} + \text{Saving} = \text{Investment}$ in a simple model. He re-wrote this as

$$\text{Profits} = \text{Investment} - \text{Saving}$$

Although not saying things so explicitly, Keynes was tying together this equation to standard microeconomic theory. He knew that increased demand for products would raise prices and cause profits to rise. Thus, when interest rates fell, this would raise investment and lower saving causing increases in demand and hence higher prices and larger profits. Thus, with larger profits firms would expand production and employment. Over time new firms would enter and again investment and saving relations would change. This theory that Keynes espoused in the 1930s was heavily criticized by people such as Alvin Hansen at Harvard. For one thing, profits are business saving, and in that context, Keynes was merely rearranging terms from a more general relation that $\text{saving} = \text{investment}$. Something that is always true. Keynes knew this as well and he later abandoned the fundamental macroeconomic equation he had derived for something better. This was the theory he put together in 1936 when he wrote the *General Theory of Employment, Interest, and Money*.