

## BERTIL GOTTHARD OHLIN

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*Bertil Gotthard Ohlin was born on 23rd April 1899 in Klippan, the village in the East of Sweden, in the middle-class family. In 1917 he graduated from the Lund University, where he studied mathematics, statistics and economics. Later he studied economics at Stockholm School of Economics under Eli Heckscher and Gustav Cassel, who conducted research in the theory of international trade. This inspired Ohlin's interest in this area. Ohlin worked on the theory of international trade in his doctoral thesis from 1924 entitled *Handelns teori (Trade theory)*. Between 1925 – 1930 he held a chair at the Copenhagen University. In 1931 he returned back to Sweden, where he succeeded Heckscher at the Stockholm School of Economics. Already during this period he paid attention to the analysis of the cur-*



*rent economic development. In 1931 he prepared a report on the World Depression for the League of Nations and in 1934 an analysis of the unemployment situation for the Swedish government. Between 1937 – 1947 he studied for some period at recognized world universities, at the University in Berkley, at Columbia and Oxford University.*

*Ohlin belongs, due to his economic ideas developed between the world wars, which had formed in discussions*

*with his colleagues – other economists in Stockholm, E. Lindahl, G. Myrdal, E. Lundberg, to the Stockholm School, a group, which is in many respects considered to be a parallel and independent developer of the theory of the economy with unused resources, which became the essence of Keynes' General Theory.*

*At the end of 30-ties Ohlin became a member of the Swedish parliament „Riksdag”, with which the long period of his active participation in the political life of Sweden began. Between 1944 – 1967 he was a chairman of the Liberal Party. During the 2nd World War he served as the Minister of Trade in the Swedish government. He was an MP until 1970.*

*For many years Ohlin contributed to Swedish newspapers. He wrote articles related to current economic events and economic policy. Similarly to his academic work most of these articles were written at*

*the beginning and towards the end of his professional career, since his long-lasting political activities did not allow him to allocate more time to his academic work.*

*In 1977 he was awarded, together with James Meade, the Nobel price for economics for his contribution to the development of the monetary theory and the theory of economic expansion and for the analysis of theoretical and practical problems of international trade and movements of capital. Bertil Ohlin died on 3rd August 1979 in Stockholm.*

### Ohlin's contribution to economic theory

#### Monetary Theory

In 1929 for the first time Ohlin attracted attention of a wider audience of economists and gained recognition in his polemics with J. M. Keynes on the mechanism of capital transfers applied to the concrete example of reparations, which was Germany assigned to pay after the 1st World War. In this discussion Ohlin took the position that even in the situation of a large international monetary transfer a country can

maintain its macroeconomic equilibrium. In difference to Keynes, Ohlin emphasized that if proper monetary and fiscal policies were formulated and fixed exchange rate regime applied, the increase of taxes required by the need to accumulate resources to pay reparations, would bring about the decrease of the purchasing power in Germany and the increased demand in England and France. This would find corresponding response in the trade balance of these countries. Germany would create export surplus and England and France import surpluses.



Similarly to other representatives of Stockholm School, Ohlin frequently used the ex-ante and ex-post approach in his analysis. He emphasized the importance of time-lags and with respect to the analysis of the monetary policy he pointed out that changes in psychological reactions of individuals could influence the economic development to a larger degree than the monetary policy itself. The ex-ante and ex-post approach did not allow him to consider the interest rate as an equilibrating variable. Regardless from its value, ex post investment will be always equal to savings. So in the first place he considered the interest rate as the price of credit and only in this respect able to influence to some extent the size of investment.

Ohlin's monetary theory is in a wider sense closely related to his business cycle theory. If the central bank aims to influence the real sector of the economy then the interest rate will play a key role. Ohlin also analyzed possibilities for endogenous changes in the money supply and credit, but questioned whether these changes are sufficient to influence aggregate expenditures. Ohlin's paper „Till fragan om penningteoriens upplägning“ (On the Formulation of Monetary Theory) from 1933 is considered by several economists as a parallel formulation of the theory, which Keynes came with in his General Theory. However, in difference to Keynes a primary concern of Ohlin's interest in this article is the analysis of changes in the price level and the fluctuations of output are treated only as secondary ones. On the other hand, it is necessary to emphasize that Ohlin did not specify the role of changes in output as an equilibrating variable as Keynes did.

Ohlin's theory of interest rates can be considered as his monetary theory in the narrower sense. This theory was presented in his papers in the „Economic Journal“ (1937) and further elaborated in the monograph *Kapitalmarknad och räntepolitik* (The Capital Market and Interest Rate Policy) (1941). The main aim of the later one was to formulate a capital market theory and to criticize credit policy in Sweden during the first two years of the war. He also analyzed factors, which determine the level of interest rates. He considered one of the most important factors in this respect expectations of economic agents. Prices on the securities market are formed in the mutual interaction of the demand and supply. He called for the diversification of this market in general and in Sweden of those days in particular. In Sweden up to 1935 securities with the maturity period between 30 – 80 years were issued. Only in 1935 securities with the maturity period of 12 years were issued, however this step was not met positively by investors. Because of the situation during this period the possibility to use open market

operations as a tool of monetary policy was limited in Sweden. Ohlin criticized it and requested to use changes in the interest rate and subsequently in the volume of credits as the main tool of the monetary policy of this period.

Ohlin also dealt with the issue of the optimal level of interest rates, which he considered to be at 3-3.5 percent. He arrived at this estimate on the basis of the analysis of the dynamics on the Swedish market of long-term credits in 1930. He concluded that the interest rate at 3 percent represented a critical lower margin, since there existed psychological barriers, which did not allow it to decrease below this level. However, in 1938 interest rates in Sweden fell even below 3 percent. Ohlin attributed it to the fact that the recession in the industry created suitable psychological preconditions for their decrease.

According to Ohlin, the aim of the interest rate regulation should be the price stabilization and the desirable economic development. He criticized the banking system that during the war it was not able to maintain the flexibility and did not issue bonds with short periods of maturity. Ohlin did not emphasize the role of money in the economy. If the ex ante - ex post approach is applied, not the quantity of money in circulation is important for changes in price level, but the conditions, which exist on the capital market. He called for attention of economists to an individual, whose psychological reactions to the liquidity and interest rates, he considered to be more important as money and its circulation if aiming to influence the economic development.

As stated above, Ohlin analyzed changes in the price level and also factors, which lead to the price changes. His explanation of changes in the price level elaborates on the Wicksell's idea according to which the inevitable and sufficient condition for the increase in prices is the increase of the sum of the consumption and investment demands compared to the change in output. Thus, the price increase can be initiated either from the side of investment or from the side of consumption. If trying to explain changes in prices then we have to concentrate on the identification of factors, which influence the demand and the supply of consumption and investment goods.

In his paper from 1934 Ohlin pointed to the interest rate as a factor, which has impact on the size of the demand and the supply. The decrease of the interest rate leads to the increase of planned investment. The impact of the increase of investment on output and price level depends upon the elasticity of supply determined by the existence of unused resources in the economy. If the supply is perfectly elastic, i.e. there exist spare resources in the economy, the increase of



investment will lead to the corresponding increase and will not increase the price level. In this analysis we can clearly see parallel with Keynes' conclusions. However, as indicated above Ohlin's aims were different from those of Keynes. Ohlin concentrated primarily on the explanation of changes in the price level, meanwhile Keynes' priority was to explain fluctuations of output.

Ohlin's views from the area of the pure monetary theory can be found in his paper *Stockholmskolan kontra kvantitetsteorien* (Stockholm School versus quantity theories) (1943). In this paper changes in the quantity of money in circulation are considered as a most common factor, which can increase the price level. However, in spite of this statement Ohlin took critical position to the quantity theory. In this paper he also analyzed current problems of the monetary sector development in Sweden during that period and drew theoretical generalizations based on this analysis. According to Ohlin, it is the situation on the credit market and not the quantity of money, which plays a decisive role in the economy. If we want to understand the situation we have to study psychological reactions of individuals.

According to Ohlin, the specifics of Swedish approach in the monetary theory lied in the fact, that it turned the attention of analysts towards the behaviour of individuals and their motives and did not pay primary attention to money, the velocity of its fluctuation as it is done by supporters of the quantity theory of money. If the monetary policy is to be an effective tool to influence the economy, it is, according to Ohlin, necessary to develop other theories of money, which provide a certain alternative to the quantity theory.

### **Ohlin's contribution to the development of macroeconomic theory**

Together with other members of the Stockholm School Ohlin analyzed the situation, which led to the Great Depression on the theoretical basis and postulated rules for the conduct of proper practical economic policy. Already in 1927 during his stay in Denmark he called for the utilization of public works as a tool of expansive fiscal policy to deal with the high rate of unemployment. He further elaborated on these ideas and they were published in 1937 in English as the "Stockholm Theory of Savings and Investment", the paper which was his reaction to the Keynes' General Theory published in 1936.

However, already in Ohlin's paper from 1934, which was published in Swedish, many conclusions can be found, which are parallel with Keynes' theory. This publication, at the time of its appearance from the language perspective not accessible to the international economic audience, became later an impul-

se for the discussions among several economists on whether Ohlin, before Keynes and independently from Keynes, formulated the theory of the economy with unused resources.

In his 1934 paper he based his analysis on the Wicksell's treatment of the mutual relationship between the natural and market (monetary) interest rate. According to Wicksell, if the monetary interest rate is below the natural rate, businessmen will increase nominal wages of their employees. However, the physical output will no change since, according to Wicksell, prices of goods and services will increase correspondingly to the increase of nominal wages, thus real wages stay unchanged. In this situation the economy is hit by unanticipated inflation. In his model Ohlin added to the price level another variable – macroeconomic output. In his analysis, similarly to Keynes a bit later, he used the propensity to consume, liquidity preference and the multiplier, as well as the accelerator, which was not used by Keynes in his General Theory. Ohlin pointed to their mutual interaction in the following way.

If the consumption demand increases the increase of macroeconomic output will follow and additional income in the economy will be created. The impact on the creation of additional output will be determined by the existing propensity to consume. Ohlin also pointed out that the change of investment will initiate, i.e. accelerate, the change of the macroeconomic output. Similarly as in Wicksell's model also in Ohlin's approach these reactions take up the form of the cumulative process, represent a sequence of disequilibria situations, which change expectations of individuals with respect to the future development based on their experience. Thus, in difference to Keynes, Ohlin's approach to the analysis is a dynamic one.

To deal with the problem of unemployment during the Great Depression it was, according to Ohlin, necessary to use the whole spectrum of economic policy measures, some of which could mutually counteract. Ohlin suggested that in the situation of the economy with unused resources, a concise program of recovery should be prepared. It would consist from the policy of easily accessible money utilizing open market operations and limited only by the state foreign reserves and from a wide program of public works partially supplemented by agricultural subsidies and tariffs imposed on imports of consumer goods. He admitted budget deficits accrued as a consequence of the financing of public work and public investment programs in recession, since their financing from increased taxes would limit consumption expenditures and neutralize their goal. According to Ohlin an increased budget deficit should be



financed by the increase of the supply of money, since issuing additional bonds would crowd out private investment and thus limit targeted results of public work programs.

### Ohlin's contribution to the theory of international trade

Probably best known contribution of Ohlin to economics is his contribution to the development of the theory of international trade. The starting point of his work in this area is Cassel's version of Walras' general equilibrium theory of the closed economy with perfect mobility of production factors. Inspired by E. Heckscher, Ohlin set out on the way of its modification to the conditions of a country indulged in the interregional and international trade. In the open-economy macroeconomics this contribution became known as Heckscher-Ohlin theorem.

At first Ohlin considered an economy, which consists from regions characterized by perfect mobility of production factors within a region and imperfect, or non-existing, mobility between regions. If separate regions are differently equipped with production factors, relative prices of goods in different regions will be different. This difference can be based also on the differences in technology, or preferences of consumers.

In the situation of isolation, there will be goods with relatively low and relatively high prices in each region. Since individual regions are differently equipped with production factors, to produce a good with low price a relatively large quantity of abundant production factor will be used and thus its price will be low. This good probably becomes an export article if the economic isolation of the region is released. The price of a good with high price is high, since for its production a relatively large quantity of a scarce production factor (with high price) is needed. This good probably becomes an import article after the isolation of the region is removed.

The dissolution of economic isolation will assist the development of the trade. Exports of goods requiring relatively large quantity of an abundant production factor increase the demand for it and its price. Imports will decrease the demand for a relatively scarce production factor and its price. If transportation costs were zero and specialization did not exist, the trade would lead to the equalization of production factor prices. However, Ohlin realized that in the real life situation these preconditions do not hold. Transportation costs are not zero and the existence of the returns from scale in the first place creates the reason for the development of the specialization.

Second Ohlin's modification of Cassel's theory was based on considering the international trade as a specific case of the interregional trade. Countries differ not only in their equipment with production factors and technology, but in climatic, cultural and legal aspects. In different countries different currencies are used and countries experience different monetary policies. Different currencies add to the model another unknown variable, i.e. exchange rate. If considering the attainment of an external economic equilibrium, the balance of payments between trading countries should be taken into account.

Except for this contribution to the open economy macroeconomics, at the end of his career Ohlin discussed at that time a very discussed claim about the need to harmonize social legislation as well as tax systems among countries, which created some form of an economic union. Ohlin considered the emphasis on the need for the harmonization as overstated. He stressed that the legislative framework of the country represents the revelation of a collective preference of citizens in the area of social policy and although it can lead to changes in the allocation of production and in the structure of trade in the economic union and outside of it, he does not prior the formation of the economic union over the collective preference of citizens, which led to the creation of a given legislative framework.

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