

JOSEPH ALOIS SCHUMPETER

doc. Ing. Ján Iša, CSc.

J.A. Schumpeter may be most famous for his theory of economic development, which starts from the decisive role of the entrepreneur applying new combinations of productive factors. The ideas contained in the theory of economic development were also reflected in his other fundamental works, especially in work



devoted to business cycles, in work on the prospects of capitalism and socialism and the posthumously published work: History of Economic Analysis. Schumpeter, who was ahead of his time in his vision of the moving forces of economic development, ranks with J.M. Keynes as one of the greatest economists of the last century.

J.M. Schumpeter was born on 8th February 1883 in Triesch, Moravia, where his father owned a textile factory. The young Schumpeter attended the prestigious Theresianum, high school in Vienna and studied law and economics at the University of Vienna, where F. von Wieser and E. von Böhm-Bawerk were his teachers of economics. After completing his university studies, he went to Great Britain in 1906, where he got married in 1907. However, his marriage soon failed and Schumpeter went to Cairo, where he worked in an international court. This activity did not satisfy him, so he decided on a career as a university teacher. He qualified for this in Vienna in 1909 and began work at the University of Czernowitz. He became a professor at the University of Graz in 1911. Later he worked at universities in Germany and the USA, but he never fulfilled his great dream of a professorship at the University of Vienna.

In spring 1919, he became a minister of finance in Renner's coalition government of Catholics and Social Democrats, where he was initially a supporter of extensive socialization. However, later his views changed, especially because he realized the need for an inflow of capital. It is not surprising that he came to disagree with the socialist ministers, which finally led to his resignation. Schumpeter was also unsuccessful as a banker. He became president of Biederman's Bank, a private bank in Vienna, but it went bankrupt in 1924. He suffered his greatest personal tragedy in the same period. His second, very happy marriage with Anna Reisinger

ended in 1926, when his wife died in childbirth together with the baby. He filled the further years of his productive life with intensive scientific and educational work at the university, which was a sort of substitute for his lost personal happiness, for lost "joie de vivre" (W.F. Stolper). Schumpeter found mental contentment only in 1937 with his third marriage to Elizabeth Boody-Firusky.

From 1925 to 1932 he worked as professor of public finance at the University of Bonn. In 1932, he moved to Harvard, where he had already lectured in 1927 and 1930. He remained at Harvard University until he died and became close to Professor F.W. Taussig there. At Harvard as at Bonn, Schumpeter was famous for his seminars, in which P.A. Samuelson, Lloyd A. Metzler, Alan and Paul Sweezy, Abram Bergson, Oskar Lange, Fritz Machlup, Eric Roll and Richard Goodwin also participated. According to W.F. Stolper, who also participated in these seminars, Schumpeter often developed the idea that truth is never final and that the logical sources of progress are precisely the difficulties, which older theories are not able to solve. Schumpeter won many awards and honorary doctorates. He deserves recognition for the establishment of the Econometric Society and serving as its first president from 1937 to 1941. American economists also appreciated his scientific achievements by electing him as president of the American Economics Association in 1948. Schumpeter spent the last years of his life at Taconic, Connecticut, where he died on 8th January 1950.

Schumpeter's Work

Schumpeter's economic work is extraordinarily extensive and heterogeneous in themes. It includes basically monographic works, a large number of articles devoted to a wide range of economic questions, numerous

reviews and biographical essays. In the 1920s, he wrote a book about money, but probably destroyed its first version, when Keynes published the Treatise on Money in 1930. He wrote another version of the "Theory of Money" about 1935, but it was not published either.

According to W.F. Stolper, Schumpeter's first extensive



ve work on "Nature and Principal Content of Theoretical Economics" (1908) was intended to contribute to a new formulation of the theory of general equilibrium. It was remarkable that the author of this weighty and in many ways original theoretical work was only a 25 year old university graduate. Only three years later, Schumpeter published "The Theory of Economic Development", the work which brought him the greatest fame. According to Schumpeter, this work had the same sort of importance for his thinking as "The General Theory of Employment, Interest and Money" had for the thinking of Keynes. In the foreword to the Japanese edition, he wrote that in this work he attempted to construct a theoretical model of economic development over time, in other words, he wanted to find an answer to the question of how the economic system generates the force, which continually changes it. Schumpeter wrote a further work "History of Economic Doctrines and Methods" for the first volume of Max Weber's "Outline of Social Economics" (1914). The year 1918 brought one of Schumpeter's few works devoted to specific questions of economic policy – "The Crisis of the Tax State", in which Schumpeter clarified his ideas on how to secure financial stability in the period of post-war renewal of the Austrian economy.

In the first years of time in the USA, Schumpeter attempted to continue his work directed towards developing a general theory of capitalist development. He prepared a large monograph, which aimed to confirm the correctness of the basic ideas explained in "The Theory of Economic Development" on the basis of the analysis of empirical material. Although Schumpeter almost completed this monograph, he did not publish it. Schumpeter began to intensively study business cycles in connection with the Great Depression. The result of his effort was the two volume work "Business Cycles" (1939), which explains the cyclical fluctuations with the view that new combinations of innovations come in waves rather than being equally distributed in time. Schumpeter went beyond the limits of economic analysis in the work "Capitalism, Socialism and Democracy (1942), in which he considered the prospects of capitalism, concluding that the dissolution of capitalism was inevitable and it had to be a process of "creative destruction". During and after the Second World War, Schumpeter wrote several sociological papers, which were published in 1951 under the title "Imperialism and Social Classes". His two works devoted to the history of economic thought also appeared after his death. They were "Ten Great Economists" published in 1951 with essays devoted to great figures in economics from Marx to Keynes, and his most extensive work: "History of Economic Analysis" (1954).

Money in the History of economic analysis

We already mentioned that Schumpeter prepared a work devoted to the theory of money, but never published it. His views on the theory of money are partly found in the parts of his "History of Economic Analysis" devoted to the development of monetary theories, credit and interest rates, monetary analysis and finance. Already in the first chapter (Graeco-Roman Economics) of the extensive second part devoted to the long period from antiquity to the year 1790, we encounter two basic conceptions of money – cartalism and metallism, which have origins reaching back to Plato and Aristotle. We find the roots of the first approach in Plato's "Laws", in which he says that money is a "symbol" with the purpose of facilitating exchange. As a result, Plato can be regarded as the first known supporter of one of the two fundamental theories of money, just as Aristotle can be regarded as a supporter of the second fundamental theory, that of metallism. Aristotle started from the view that if money is going to be used in the market of commodities as a medium of exchange, it must itself be one of these commodities. Concerning further questions connected with the theory of money, Aristotle condemned interest payments, which he identified with usury. Little that was new was brought to the general theory of money not only by further ancient writers, but also by the Scholastics.

New approaches to the theory of money appeared only much later. Schumpeter summarizes them in the chapter "Value and Money", in which he first clarifies the difference between real and monetary analysis. Real analysis starts from the principle that all the essential phenomena of economic life can be described in terms of goods and services. Money appears only in the modest role of a technical device facilitating transactions. If money functions normally, it does not affect the economic process, which works just as in a barter economy. This is the concept of neutral money, in which money is regarded as an external form or "veil" over the real processes. In contrast, monetary analysis rejects the idea that money has only secondary importance in the explanation of real economic processes. Observation of real economic development leads to the conclusion that the monetary element needs to be included in real analysis. Doubt also arises over whether "money can ever be neutral in any meaningful sense". Monetary analysis introduces the element of money in the basics of economic analysis and abandons the idea that all essential features of economic life can be described with the help of the model of the barter economy. However, monetary analysis means something more, it also means aggregative analysis or macro-economic analysis, which reduces the variables of economic sys-



tem to a small number of homogeneous social aggregates.

Schumpeter returned to the theory of money in the narrower sense, that is to the theory of money as a technical device, when studying metallism and cartalism. Apart from Smith and Marx, he assigned J. Child, W. Petty, J. Lock and D. Hume to the supporters of metallism. Schumpeter distinguished between theoretical and practical metallism. He understood practical metallism as recognition of the principle that the monetary unit should be firmly linked to a certain quantity of a particular commodity, with which it should be freely exchangeable. However, he considers theoretical metallism to be untenable. It is not true that, as a matter of pure logic, money essentially consists in, or must be backed by, a commodity or several commodities, whose exchange value as commodities are the logical basis of their value as money. According to Schumpeter, metallism involves the error of confusing the historical origin of money with its nature, "which is entirely independent of the commodity character of its material". The antimetallist tradition also has ancient roots, stimulated by governments in financial difficulties, inflationists, "reflationists" and some bankers. The antimetallist camp includes P. Boisguillebert, N. Barbon, G. Berkeley and the mercantilist James Steuart. However, the most famous antimetallist was the Scottish financier and banker, the "paper-money mercantilist" John Law, who had a "pleasant character, half fraud and half prophet" (Marx). Law maintained that the key to economic success is sufficient money in the country to ensure full use of the soil, labour force and business talent. He prepared various projects, from which he succeeded in implementing in France the project of a General Bank issuing notes. At the end of 1717, he established a second gigantic company – the Indian (Mississippi) Company and in 1720 he became the chief administrator of finance. His experiment ended in the same year with the inevitable collapse, but he enabled the state to free itself from its astronomical debt. J.A. Schumpeter wrote of his project: "He worked out the economics of his project with a brilliance and, yes, profundity, which places him in the front rank of monetary theorists of all times".

At various places in his History, Schumpeter concerned himself with **the quantity theory of money**. He points out that attempts to explain the effects of the price revolutions in the 15th, 16th and 17th centuries stand at the beginning of the long road to the clarification of quantitative theory. The first theoretically based explanation of the price revolution of the 16th century was offered by the French mercantilist Jean Bodin, who can be described as the real discoverer of the quantity theory of money. In 1566, he rejected the view of J. Ch.

de Malestroict that the general rise in prices was the result of debasement of coins. He explained the price revolution (1) by the increased supply of gold and silver, (2) by the dominance of monopolies, (3) by plundering and devastation, which reduced the flow of goods to the domestic market, (4) by the expenditure of the king and nobility on luxury goods, (5) by the debasement of coins, which was the only factor taken into account by his opponent. Bodin added that the most important factor was the first: that is the "excessive supply of this (commodity), which controls the valuation and prices of things". If this is the beginning of the quantity theory, Schumpeter also perceives the contributions of B. Davanzati, T. Mun, G. Malynes and J. Brisco, who was the first to write an equation of exchange, although in an unsatisfactory form: the supply of money equals price times real income. This equation would be correct, if V (velocity) were equal to 1. However, Schumpeter observes that the quantities M, V, P, T can have various meanings and acquire various values. It is interesting that Schumpeter devoted relatively little attention to the contributions of J. Lock and D. Hume to the formulation of quantity theory.

In the third part of the History, Schumpeter concerned himself with the development of economic theories in the period 1790-1870, that is the period of the formation of classical political economy, and of the first works, which became the starting point for the marginal revolution and so also for neoclassical economics. Smith's work "The Wealth of Nations" proclaimed a new epoch. Schumpeter described it as the most successful book on economics written so far. In spite of describing Smith as the most famous of all economists, he did not find in "The Wealth of Nations" "a single analytic idea, principle or method, that was entirely new in 1776". Therefore, it is not surprising that he did not devote special attention to Smith's theory of money. In the chapter "Money, Credit and Cycles" he considers the monetary theories of W.T. Thornton, D. Ricardo, N.W. Senior, J. Fullarton, J.S. Mill and K. Marx, who are described as theoretical metallists. He states that these economists defined money similarly to F. Galiani, C.B. Beccara and A. Smith, that is as a commodity serving as a medium of exchange, measure of value and so on. However, he distinguished between the approaches of these supporters of the metallist doctrine. Especially Fullarton entirely explicitly accepted the metallist doctrine. He included in money only full-value coins. Schumpeter also described Marx as an unambiguous supporter of metallism, although Marx clarified and defined in detail the nature of credit and paper money. Schumpeter wrote that Ricardo, Senior, Mill and Marx derived the phenomenon of money from the case of full-value metallic



money. "But it does not mean that this metallist basis of their analysis hampered them at every step. Sometimes it was happily forgotten." In the next period, the value of money became the key problem of monetary theory. According to Schumpeter, the leading "classics" solved the problem of this "rather doubtful" value of money simply by extending to it their general theory of value. They distinguished a natural or long-term normal value of money from the short-term equilibrium value. "The former or as they also said – misleadingly – the 'permanent' value was determined by the cost of producing (or obtaining) the precious metals, the latter by supply and demand." However, Schumpeter observed that change in the marginal costs of gold affect the value of money only by means of their affect on the supply of money, as Senior and J.S. Mill recognized.

Of course, the "classics" could not avoid the quantity theory. We encounter rejection of it in Marx, Thornton and Senior, although according to Schumpeter only Marx rejected it completely, describing this theory as an "insipid hypothesis". Schumpeter added that the quantity theory of money and the theory of money based on the production costs (of gold) are not alternatives, between which it is possible to choose. "This not so: the value of money as determined by the quantity and the value of money as determined by costs of production must, in the long-run, necessarily coincide..." When evaluating Mill's and Ricardo's approach to the quantity theory, Schumpeter actually defined his own understanding of the quantitative theory as follows:

1) The quantity of money is an independently variable, which changes independently of prices and the physical volume of transactions. This is the understanding of the money supply as an exogenous variable, which we also encounter in present day monetarism.

2) The velocity of circulation is an institutionally datum, which changes slowly or not at all, but in any case, it is independent of prices and the volume of transactions.

3) Transactions or output are not connected with the quantity of money, they may develop together only by chance.

4) Changes in the quantity of money, which are not absorbed by changes in output occurring in the same direction, effect all prices without regard for how the growth or decline in the quantity of money is used and what sector is effected first.

In the fourth part covering the period from 1870 to 1914, we find an extensive chapter devoted to money, credit and business cycles. First Schumpeter deals with the "practical problems – the gold standard, bimetallism, international monetary cooperation in the form of monetary unions and some proposals for the stabilization and regulation of currency (Jevons, Mars-

hall, Fisher, Walras). Schumpeter mentions Jevons' work „Money and the Mechanism of Exchange“ (1875), which he describes as charming, but with rather trite arguments. He attributes the most important contribution to the theory of money to Walras, who is said to have created the modern theory of money as part of the theory of general economic equilibrium. Thus, in essence Walras fulfilled the strong wish that the analysis of money should be included in the system of a general theory instead of being developed independently and then being plastered upon it. He identifies A. Aupetit and K. Schlesinger as outstanding successors of Walras, who had remained unknown. He mentions Fisher's works "The Theory of Interest" (1930) and "Booms and Depressions" (1932) as original works on money, continuing that of Walras. However, Fisher is better known among the economic public for his contribution to quantity theory (Schumpeter writes of Fisher's particularly rigid form of quantity theory) as well as his contribution to monetary analysis of the economic process as a whole influenced by Walras.

Like Walras, Marshall also understood "the monetary problem as part of the general analysis of the economic process and as one of the doors to the theory of employment". Marshall pointed to the importance of the difference between "real" and "monetary" rates of interest and to the role of the mechanism by means of which money effects the economic system. Marshall's teaching, which, like Wicksell's monetary theory, starts from a reevaluation of J.S. Mill, was further developed by R.G. Hawtrey, F. Lavington, J.M. Keynes, A.C. Pigou and D.H. Robertson. Schumpeter also devotes attention to the contribution of the Austrian School to the theory of money, in the framework of which F. Wieser and Ludwig von Mises most interested him.

Discussions on the nature and functions of money continued in this period, but they brought little of interest. According to Schumpeter, Americans accepted the neat formulation of F.A. Walker: "Money is that money does". Most economists distinguished between money or primary money, that is coins and government fiat, often but not always also banknotes or at least notes of central banks, on one side, and "credit" or fiduciary money on the other. There was no wide-spread fetishism of the gold standard. However, some economists began to emphasize the function of money as a store of value, by which they actually anticipated Keynes' liquidity preference. Economic theory still generally showed a dichotomy between monetary and real analysis, that is, on one side the theory of money and on the other the theory of value and distribution. The so-called real analysis was applied in the majority of important economic works, although their authors used monetary terms. In this context, Wicksell produced the concept of neutral



money, but it contained an element of recognition of the fact that money need not be neutral.

Knapp's "State Theory of Money" (1905) was a very popular work on money in Germany at the beginning of the 20th century. Its author, Professor G.F. Knapp started from the view that money is the creature of the legal order and so the theory of money can only be historical and legal. Knapp, who began to use the terms cartalism and metallism, was not concerned with the value of money, and he did not claim that the state could determine its purchasing power. In his view, the state could only determine what would serve as money in its territory. However, Knapp did not offer an alternative theory of metallism and he did not create a non-metallic theory of the value of money. It is true that the state can determine what will serve as money in its territory. However, it cannot ensure that economic entities will really use the monetary unit determined by it. Periods of high inflation or monetary disorder, when the currency of another state, such as the dollar, is used or barter exchange occurs, are examples of this.

Schumpeter devoted special attention to the monetary theory of Irving Fisher, regarding him as the "greatest from American scientific economist". Fisher's contribution to the development of the quantity theory of money is most frequently mentioned in economic literature. Schumpeter points out that there is nothing new about what is called the Fisher or Newcomb-Fisher equation of exchange. This equation simply links the price level (P) with (1) the quantity of money in circulation (M), (2) its velocity (V) and (3) the physical volume of transactions (T). This relationship can be expressed as $P = f(M, V, T)$. Fisher's equation can be written in the form

$$P = \frac{MV}{T}$$

or $MV = PT$. According to Schumpeter, in contrast, for example to Tobin, this equation does not represent identity, but condition of equilibrium. However, according to Schumpeter, the really interesting monetary analysis begins only behind the "fasade" of this equation. What is the exact meaning of P, M, V and T? The economic or monetary theory must answer this on the basis of reliable statistical material. The Americans, who observed this principle in later decades, got further in these questions. Schumpeter rejects the approach, which identifies quantity theory with a precisely defined set of claims. The equations used in this theory are really only instruments, which enable us to comprehensively analyse the basic causes, which determine the value of money. The observant reader may be surprised by Schumpeter's claim that it is not easy to draw a clear boundary between the supporters and opponents of

quantity theory. Germany and France always had many economists, according to whom quantity theory is untenable or entirely worthless. According to Schumpeter, however, their arguments are weak and sometimes it is a matter of a fight against windmills, since they criticize ideas never stated by the supporters of quantity theory, for example, that the quantity of money in circulation is the only regulator of its value. He describes arguments of the type: "in the initial phases of inflation, prices grow more slowly than M and in the later phases they grow faster", intended to cast doubt on the validity of quantity theory, as "shot, that completely fails to hit the target". Fisher's analysis of this problem, although it is open to certain criticism concerning the correlation of time series, is greatly superior to anything done by opponents.

The Fisher-Newcomb equation of exchange was widely used, but there were also other approaches. One of them is the Cash Balance Approach and the other designated The Income Approach. The first approach was worked out by the Cambridge economists headed by A. Marshall. We find the second approach in its embryonic form in the work of T. Took and we encounter it in modernized form in the work of J.W. Angell (1936). Schumpeter does not see a basic difference between the Cambridge and Newcomb-Fisher equations. In fact there is a sort of bridge here to the later Keynesian theory of liquidity preference. Schumpeter devotes the conclusion of the extensive eighth chapter to bank credit, the "creation" of deposits and monetary theories of the cycle.

The theory of money has been analyzed also in the final, unfinished chapter: "Keynes and Modern Macroeconomics". Schumpeter's evaluation of Keynes – as in the case of other great figures in economic thought such as D. Ricardo and A. Smith – is contradictory, although critical tones predominate. On one side, Keynes' General Theory is called from the point of view of modern macro-economics the "greatest literary success of our epoch", but on the other, the theoretical foundations of Keynes' macro-economics: the consumption function, the investment function and the liquidity-preference function, are ironically and to a considerable extent incorrectly, described as "three great simplifications". However, in the work "Ten Great Economists", Schumpeter quotes in evaluation of Keynes, the words of "a prominent American economist", who wrote: "It (the General Theory) did, and does, have something, which supplements what our thinking and methods of analysis would otherwise have been. It does not make us Keynesians, it makes us better economists". Schumpeter regarded the monetary theory of interest, the basis of which is the liquidity preference



function, as the most original contribution of the General Theory. This function is usually stated in the form $\bar{M} = L(Y, i)$, which compares the given stock of money with the demand for money, which is partly determined by the volume of transactions (Y) and partly by people's expectations about the future behaviour of the various interest rates.

Schumpeter did not complete his chapter about Keynes, which was the culmination of the whole "History of Economic Analysis". However, the further development of economic thought proved that Keynes revolutionized economic theory including monetary theory, as well as economic policy, much more than J.A. Schumpeter supposed. Keynes' most original and most important contribution to monetary theory was his modification of the simple function of demand for money. He added the speculative motive for holding money to the "traditional" transaction motive. The speculative motive sees money and bonds as alternative assets, with the holding of bonds depending on the level of their yield.

Naturally, if interest rates are brought into the demand for money, it is impossible to suppose that velocity will remain constant. Keynes' concept of monetary policy, which is directed towards the regulation of interest rates, also starts from the liquidity preference theory. It is interesting that after the era of monetarist experiments, the policy of the central banks of the majority of developed countries in recent years has again become oriented towards "Keynesian" regulation of interest rates.

Schumpeter frequently remarked that he had three ambitions in life – to be the greatest economist, the greatest lover, and the greatest horseman, and he added mischievously that he had already fulfilled two of the three, but he did not specify which two. One of the wishes he undoubtedly fulfilled was to reach the peak of economic science. This also contributed to the fact that he – like Walras or Keynes – became a giant on whose shoulders many later scholars significantly contributing to economic science stood.

**The most important economic works
of J.A. Schumpeter**

- Das Wesen und der Hauptinhalt der theoretischen Nationalökonomie (1908)
- Theorie der wirtschaftlichen Entwicklung (1911)
- Epochen der Dogmen – und Methodengeschichte (1914)

- The Crisis of the Tax State (1918)
- Business Cycles: A Theoretical, Historical, and Statistical Analysis of the Capitalist Process (1939)
- Capitalism, Socialism, and Democracy (1942)
- Ten Great Economists. From Marx to Keynes (1951)
- History of Economic Analysis (1954)