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INVESTMENT ISSUES IN SELECTED ECONOMIC APPROACHES

Introduction

Investments account for the total of company spending on fixed capital and stock and households spending on purchasing flats. Generally, it can be stated that investments include fixed capital and the changes in company stock [1]. The investments do not include the purchase of shares, bonds or any other titles of ownership.

Investments play significant roles in economy. They are a part of the aggregate demand for goods, and as a result they have an impact on the changes in demand and national product. Beside consumption, state expenses and net exports they constitute a basic GDP element.

In the long term, investments contribute to the development of the productive capacity of economy. They stimulate economy which requires an increased number of production elements; that influences the growth of the profitability of entities and results in the increase of the aggregate demand, which in turn has an impact on further production rise to meet the demand. The effect is expressed by the investment multiplier.

Companies invest mainly to gain profits. All factors that have animpact on the volume of profit in the future make companies invest. The most significant factors are[2]:

- the percentage rate,
- the change in the consumer demand,
- the costs and efficiency of capital equipment,
- the expectations as regards the changes in economic and political situation.

There are different approaches to investment in the theory of economics. They are due to, among others, the changes of economic and social systems that have occurred throughout the centuries. At present, investments are perceived in a very broad sense. They also include portfolio investments, which changes the classical understanding of the macroeconomic model of economy and results in an imprecise approach to some of the processes.

[1] R. Hall, B. Taylor, *Makroekonomia*, PWN Warszawa, 2010, p. 46.
[2] R. Milewski, E. Kwiatkowski, *Podstawy ekonomii*, Wydawnictwo Naukowe PWN, Warszawa 2011, p. 261.

1. Investments in pre-classical theories

In pre-classical theories the percentage rate was not related completely to money supply. The effect of the increase in money demand is presented by the Cantillon Effect in which the effects of the increase depend on where the additional money goes. If the new money reaches businessmen, it is saved and invested. As a result, the percentage rate probably goes down. However, if the money goes to landowners, it is consumed. The increase of consumer demand may result in the businessmen's will to pay higher interests, which they could afford. [3]

Such sociological approach is typical for all 18th century theories, Adam Smith theory included. It shows that the level of real savings and net investments does not result from economical reasons (the level of the percentage rate or the expectations of future profits) but rather from the philosophy of saving typical for certain social groups.

Classical economists assumed that economic expansion was usually accompanied by the decrease of the percentage rate, which influenced the increase of the supply of loan capital.

2. Investment issues according to the classics of economy

In chapter 5, volume II of his *Inquiry into the Nature and Causes of the Wealth of Nations* A. Smith presented the principles of investment policy. It was based on the principle of inverse relation between the capital and labor. At an equal capital volume and time of investment, he assumed the net added value, expressed in salary units, as the criterion of the analysis. The inverse of the relation was meant as the amount of labor produced by a unit of capital. According to A.Smith, the productivity of sectors was ranked as follows:

- agriculture,
- industry,
- domestic trade,
- foreign trade,
- transport.

Agriculture ranked first due to the assumption that the product value is sufficient to pay the rent, salary and the profits. Such thesis appears to be erroneous with the Ricardo's assumption of the differential rent as the surplus. In the case of marginal land, agriculture does not provide more rent than industry. A capital turnover rate higher in the domestic than in foreign trade results in its better ranking. When considering turnover rates on the part of

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[3] M. Blaug, *Teoria ekonomii – ujęcie retrospektywne*, Wydawnictwo Naukowe PWN, Warszawa 2000, p. 46.

producers, domestic trade shortens the rate of two domestic producers, while foreign trade of only one. Transport was ranked last as it does not influence the improvement of productivity and does not manage economically the domestic capital. One has to agree with A.Smith's assumption that agriculture is the most productive sector as in its case one unit of capital activates a maximum amount of labor[4].

The classics assumed that producers will tend to invest if there is a minimal positive profit margin. Below that margin they will not accept taking a risk. The value of a minimal positive profit margin should be assumed to be a constant figure equaling the minimum remuneration indispensible for the capital to exist. The businessmen should invest until they reach a steady state that can be always reached when the capital is accumulated. Investing does not change the "level" of the steady state, but it accelerates the process of reaching it. A steady state means the limits of manufacturing capacity. Technical progress is the factor that influences the productivity and moves the boundaries of the steady state and its development results in delaying the moment of reaching the steady state. It will certainly be caused by the upward movement of the long-term curve of the work-force supply. This is the result of the growing expectations on the part of the staff as regards their higher living conditions. The accumulation of capital is the catalyst of the changes and it increases the market value of the work force over its "natural price". Consequently, the population increases, which results in the fall of the remuneration to the level of "natural pay". The process will be stopped only when salaries constitute the whole product reduced by the rent, i.e. at the moment when profits fall to the minimal accepted level. In the steady state the salary equals the living costs, and at that level the increase of the population is stopped.

Profits stimulate investments, which causes the increase of market salaries over the natural pay. The increase of salaries results in the reduction of investments and the resulting growth of the population forces the decrease of the market salary to the level of natural pay. The drop of salaries stimulates a further investment impulse as businesspeople have more "free" capital thanks to the decrease of labor costs. The cycle lasts till the steady state is reached. If the capital accumulation is not stopped, there is a possibility that the decrease of the market salary is limited to the level of the natural pay. This is due to a steady advantage of the demand for labor over the supply. As a result, there is a growth of expectations on the part of staff as regards the level of minimal existence. The level is defined as a salary when employees are not stimulated to "produce" more workforce. It has to be remembered that

[4] M. Blaug, *Teoria…*, *op. cit*, p., p. 74.

according to classical economy the relation of workforce to population is constant. When analyzing this model, it is visible that capital accumulation is the factor that influences development and moves the systems towards the steady state, while the increase of population is a secondary element. According to Ricardo's system, demographic changes are the result of the adjustment of capital resources to the amount of labor force and land supply. Economy strives for an optimal adjustment of these values and when the optimum is reached, it will be in a steady state.

Business people are driven by the desire for profit, which is the profit margin dependent directly on the speed of the decrease of marginal revenue. The factor that influences the revenue is the amount of workforce in a household. Labor supply, according to Malthus, is limited only by the level of resources indispensible to maintain it. That is ensured by an unlimited labor supply, whose pay will be at the level of a steady real salary expressed in wheat. If the number of workforce in a household increases, additional amount of wheat must be produced to maintain additional people. The amount can be obtained in two ways, either by the extension of cultivation to a less fertile land or by the application of additional capital and work on the land already under cultivation, which will result in a decrease of revenue. Profit is the difference between the net product obtained by a worker in the least fertile land and his steady pay expressed in wheat. Competition affects the increase of the rent of owners who have a better land. With the increase of the cultivated area the net product per worker decreases, while the real pay remains unchanged. As a result , the profit per worker is falling. Wheat production is becoming more expensive, which is the result of an increased consumption of real supplies as the capital value expressed in wheat per worker is increasing. Consequently, investment motivation is dropping as the profit margin is falling. It is visible when the decreasing profit is divided by the growing capital per worker. The analysis refers to the economy that consists of one production sector, however, the situation will not change if there are more sectors. This is due to the fact that all prices are measured in wheat and the "money" profit margin in industry is determined by the profit margin in agriculture that is expressed in wheat and is dependent completely on wheat production[5].

Such model is called „wheat model" and is based on the determination of the profit margin in strictly physical categories, without the valuation of particular factors. It should be stressed that Ricardo did not assume that pay was spend completely on wheat, all agricultural products were wage goods or all industrial products were luxury goods never consumed by

[5] Ibidem, p. 108.

farmers. Such assumptions are indispensible to determine the average profit margin in economy only on the basis of the profit margin in agriculture expressed in wheat.

The rate of interest is the factor that influences the investment level. The classical economists supported the real interest rate theory. Rate interest may be influenced by the same factors that affect the capital profit margin since in the state of equilibrium both these values are equal. This is due to the situation when the doubling of money supply causes the doubling of the average price level, so the supply and demand will be twice as big as the credit funds that affect the rate of interest. In the case when prices are doubled, the real amount of money in economy will remain unchanged, i.e. the supply and demand curves will intersect at equal levels of interest rates. The need to increase credits funds occurs when investment costs increase. If they are doubled, the credit funds must be doubled too. That does not affect the return on investment, which results from the expected doubling of money profit. The rate of interest that ensures the state of equilibrium will finally not change as the demand for credits will increase by the same degree as the supply of credits was at first increased by the banks. This will happen at the moment when , due to the increase of prices, more money emerges on the market[6].

In the classical approach to interest rates, creditors experience demand for capital until their internal marginal revenue – which decreases with the increase of investments – equals the country interest rate. The interest rate results from the investors' providence and the marginal capital productivity. It is flexible, like salaries and prices. With the fall of interest rate the demand for capital grows, while savings increase when the interest rate goes up[7].

3. Investments according to Marx

According to Marx, the capitalist search for profit destroys investment opportunities. In his theory of business cycles he stated that in the period of economic revival, due to capital accumulation, the demand for labor will exceed labor supply, which will result in the decrease of unemployment. Consequently, salaries will rise, causing the diminishing of profits and the rate of capital accumulation. As a result, the aggregate demand will fall, and eventually the production will go down. The drop in production will cause further decrease of the demand for labor and consequently the unemployment and salary drop will increase. Then production profitability will return, and the accumulation process will start again.

[6] Ibidem, p. 176.
[7] Ibidem, p. 176.

Marx emphasized that the final reason of every crisis in capitalism is the inadequate division of revenue, which results from the fact that the increase of real pay does not follow the increase of the production per head. There is also the possibility of the loss of proportion between the rate of the increase of consumer and capital goods production, while there is a simultaneous falling trend of profit margin. Marx knew that the sole salary rise is not a remedy. It will not extend the prosperity limitlessly and will not guarantee an economic growth; it will only cause dissatisfaction among capitalists because of the relation of salaries to profits. Marx considered the idea that capitalism strives for the continuous production decrease independently of the size of the effective demand. The production growth itself does not generate automatically a proportional growth in the effective demand. This is due to the decrease of the profit margin caused by an excessive accumulation rate of capital. There will be no impact on the part of innovations resulting from new capital equipment which usually decrease the demand for labor and stop salary rise[8].

During the economic growth the increase of nominal salaries results in the decrease of the gross and net profit margin. The increase will not affect the profit margin until capitalists are the only ones to save and invest, irrespectively of economic conditions. In time of recession the lowering of nominal salaries will cause the rise of the profit margin due to the decrease of production costs. However, that will have an impact on the effective demand, which will go down proportionately to the salary reduction and consequently will stimulate willingness to invest by business. The key role in the system is played by the incentives to invest, which were described by Marx as the target itself for capitalists. They are motivated to save and invest by their willingness to maintain their social status Due to such motivation the level of the profit margin is of no significance from the point of view of investors, yet insignificant profit margins result in the decrease of the savings of the rich. A small yet positive revenue will be sufficient to guarantee the maintenance of investment demand. According to Marx, on the long run the investment demand and savings supply by companies is less flexible.

It should be remembered that Marx's ideas were the result of his analysis of economy with a different type of motivation. The main development incentive in the 19th capitalism was the "obvious" accumulation of capital that was not stored to increase one's capacity to spend but to meet one's desire to possess. If the situation is analyzed from such a point of view, it may be assumed that the real price of the capital supply equaled – in fact - zero,

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[8] M. Blaug, *Teoria….*, op. cit., p. 264.

which does not mean that the "real cost" of savings equaled zero and people accepted freely the current income to be the future one. The burden was transferred onto people living on their salaries and there were dramatic inequalities in the division of income. The decrease of these income differences by means of a national income distribution system (taxes, social care) did not reduce the interest rate to zero, which was not achieved in the future socialism. Capital saturation was the only means to lower the interest rate to zero and to make real income sufficient enough for the current consumption postponement to be not associated with consumers' sacrifices.

4. Keynesizm versus investment issues

Basically, Keynes did not agree with the classics. According to him, business people, when making investment decisions, were driven by an animal instinct. The main features of his theory were:

1) Interest rate is the function of money demand interacting with the money supply determined exegenically and is analyzed in money categories.
2) The move from the micro-economical to macro-economical approach. The exchange of the main objects of analysis: from the long-term to short-term, from analysis in real to analysis in money categories, from prices to quantity.
3) People are motivated to invest and save for various reasons, the state of equilibrium is reached only after a change of income.
4) Investments are an autonomous, changeable and uncertain factor. The total of consumption and savings is the stable function of income[9].

Keynes stated that the value of current multiplier is more than one and that a more than proportional impact of investment growth on the income is applicable to the same extent both in public and private investments, and practically to the same degree as regards the spending on consumptions and investments. It means that in a given period of time fiscal policy may cause a rise in real income to the level of full employment[10].

In the short-term money theory it was assumed that the increase of spending may cause the end of depression. In a short term, the money supply was partly changed into real output. Such argument was commonly used before Keynes to justify public work financed by credits. Keynes's approach was quite different. His justification was based on the idea of

[9] M. Blaug, *Teoria…,* op. cit., p. 685.
[10] Ibidem, p. 668.

consumption as a stable function of income and the definition of savings and investment as of two equally important factors. According to these assumptions, each increase of income and employment may be reached by an adequate increase of consumption, investment or government spending. This was the function of consumption where the marginal desire for consumption was in the range between zero and one, was less than the average willingness to consume and went down together with the increase of income. Such are the three typical features of the Keynesian function of consumption.

When analyzing the profitability of investment, Keynes took into consideration predictions regarding the whole next year income reached in the course of the whole predicted period. The function of the demand for investment is a line that represents marginal capital efficiency as such, or the profit margin over the costs as a market interest rate.[11] Kyenes criticized Fisher's differentiation between money and real interest rates. His criticism was based on the fact that at the moment when inflation or deflation is predicted, the money interest rate will have to be equal to the real interest rate. If there are no such predictions, the differentiation of the rates is of no significance.

When analyzing the risk of future income, Keynes differentiated the businessperson's risk form them the creditor's risk. Businessman's risk resulted from his doubts as regards the expected future profits and their probability, while the creditor's risk consisted in the possibility to encounter an dishonest debtor.

He emphasized the role of dynamic analysis while making investment decisions and pointed out that the majority of economic decisions in " present-day theory of economics" is based on the assumptions of a static state, which results in its unrealistic character.

Keynes also considered long-term predictions to be crucial for new investments. He emphasized that they depend not only on the predicted return on investment but also on the degree of trust to the prediction. Predictions are an uncertain factor as they depend on knowledge. Knowledge itself is uncertain and in time it becomes even less certain because of the increasingly more significant separation of ownership and management and the growing level of financing new investments by resources that come from trading on the stock market. Such decisions are based on the predictions of people engaged in stock operations rather than the predictions of business people. It is a kind of gambling and as Keynes states it, when capital accumulation in a country becomes a by-product of gambling, the results are pathetic.

[11] Ibidem, p. 696.

Keynes saw correlation between unemployment and investments. This was reflected in the IS-LM model presented by Hicks. The reduction of unemployment may be reached by decreasing real salary, and the only way to do it is to raise the prices. Higher prices require higher interest rates, which would cause the LM curve move to the left, i.e. it would lower investments and consequently the output level, thus having negative impact on economy. It can be concluded that there are no opportunities for reaching full employment despite the state of equilibrium at the initial incomplete employment. When looking at the situation in a dynamic approach, the neoclassical negation of any state of equilibrium at the less than complete employment should by rejected. It should be assumed that there is a level of salary and prices decrease that will stimulate consumption by increasing the liquidity in economy and investments and by decreasing the interest rate. All these will cause the movement of the whole set towards the state of equilibrium at full employment. Such view point is known as the Pigou effect. It refers to the IS curve, while the Keynes effect is represented by the LM curve. The Keynes effect caused the movement of the LM curve to the right because of the price drop. This effect is the result of the change in the demand for nominal money reserves caused by the changes of prices in the condition of incomplete employment. Since the liquidity preference function shows a demand for real cash reserves, the decrease of prices causes a decrease in real liquidity preferences which results in the increase of demand for bonds, and consequently the decrease of interest rates.[12]

The Pigou effect determines the movement of the IS curve to the right due to the decrease of the process. In the Pigou effect capital assets affect consumption. That process depends on the part of money resources that reflects the net indebtness of the government (external money) but has no impact on checking deposits possessed by individuals (internal money) as the increase of the real value of capital assets caused by the drop of prices is balanced by the real value of bank debts to the public. The Piogu effect is based on “external money”, i.e. gold, paper money and bonds as opposed to “internal money”, i.e. checking deposits, and the falling salaries and prices have no net effect in the aggregate scale. The drop of salaries and prices causes an increase in the supply of “external” liquid assets in relation to national product and consequently leads to the satisfaction of the desire to save and stimulate consumption.

In Keynesian models consumption is endogenic and basically passive – it depends on income and not on interest rates. Investment spending depends on the expected profitability

[12] Ibidem, p. 709

and the interest rate that determines the cost of acquiring the resources. Investment is affected by waves of irrational optimism and pessimism and as a result the effectiveness of the impact of interest rates on investment is doubtful. The expectations of efficiency and not the level of interest rate connect the presence with the future. Interest rate has a purely money character and constitutes the remuneration in return for the resignation from liquidity or for storing the stock for some time[13].

Conclusions

It can be concluded that although the approach to investment varied in different theories of economics, they all agreed that business people invest to gain profits. The theories analyzed the same factors that affect investments and show the following relations:

- company deposits and the volume of credits are generally prior to new investment,
- the expected rate of return is of significant importance when making investment decision,
- interest rates may have a significant impact on investment decisions,
- monetary impulses affect investment decisions.

It is obvious that a thorough economic analysis has a significant impact on investment decision-making process, yet it cannot be denied that - as Keynes put it -"animal spirits" of business people, who are driven by the profit maximization, play the main role[14].

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Summary

The theory of economics includes various approaches to investment. They result from different economic and social systems that existed throughout ages. The article presents various approaches to investment in selected economic theories and analyzes the issue of investment in pre-classical, classical, Marx’s and Keynes’s theories.