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# MICHAŁ KALECKI'S SCIENTIFIC LEGACY AS A MODEL FOR UNDERSTANDING CONTEMPORARY CRISES

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**Abstract.** Recurring crises slowing down economic activities and the resulting consequences paint the picture of modern economies. Therefore, it seems justified to draw on the achievements of economics with a view to explaining the causes of socio-economic crises. The article uses a descriptive method. The objective of the article is to understand the substance of the phenomenon; therefore, the author seeks certain analogies in the past and refers to the work of the Polish scholar Michał Kalecki. The basic conclusion of the article is: J.M. Keynes built a new macroeconomic theory based on the fundamental proposition that manufacturers' supply (the levels of national income and employment) depended on aggregate demand. In the mid-1930s, a similar thought was formulated by Poland's most eminent economist, Michał Kalecki. He constructed his business cycle model based on the aforementioned fundamental proposition. It meant that profits and national income were determined by effective investor and consumer demand. J.M. Keynes's and M. Kalecki's stressing the pivotal role of aggregate demand was a revolution in economic thinking. It should be noted that the COVID-19 pandemic is not merely a short-term change in economic activity. As predicted by various international institutions, it will have a lasting impact on the functioning of the global economy.

Key words: Michał Kalecki, demand, crisis, national income, business cycle, pandemic.

#### JEL Classification: B20, E60

# 1. Introduction

An ongoing debate among economists concerns various terms that attempt to capture the essence of a pandemic as an economic problem. The worldwide spread of the new coronavirus fits the definition of an external shock described in the economic literature. As J. Hausner notes, the current situation was largely an administrative shock, not a purely economic one (Hausner, 2020). This observation is confirmed in the context of data showing that in mid-April 2020, countries that have imposed blockades represented more than 50% of global GDP (The Economist, 2020). A. Wojtyna (Wojtyna, 2020) proposes the following definition of the current crisis: "it is an acute economic slowdown, varying across sectors, in response to a strong and poorly recognised epidemic shock and the administrative decisions resulting therefrom" [rendered into English by the translator]. Furthermore, he notes that although the initial shock itself was non-economic in nature, the secondary shocks it caused were "quite typical economic shocks: concerning demand, prices, supply, and financial issues" [translated into English by the translator]. Therefore, it seems justified to turn to the achievements of economics to explain the causes of socio-economic crises. The purpose of the article is to understand the essence of the phenomenon, so the author is looking for certain analogies in the past and refers to the works of the Polish scientist Michael Kalecki.

# 2. The short story of a rich life

Although he passed away almost 50 years ago, Michal Kalecki's name is becoming increasingly popular among economists looking for a way out of the crisis caused by the COVID-19 pandemic in 2020. Michal Kalecki was born in Łódź on June 22, 1899, and died in Warsaw on April 18, 1970. His biography contains a number of important events. In 1910 he began attending the 1st government eighth-grade philological high school in Łódź. In 1917, after graduating from Ignacy Skorupka Middle School, he enrolled in the Warsaw Polytechnic and then transferred to the Mathematics Department of the University of Warsaw. His further studies were interrupted by military service in the Polish army as a soldier in the Polish-Soviet war. In 1921 he transferred to the Gdańsk Polytechnic. However, since his father lost his



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livelihood in 1925, he was forced to return to Łódź to support his family. He made his living by giving private lessons and doing occasional part-time jobs, such as for a business intelligence information provider. He founded the journal *Koniunktura włókiennicza* ['The Textile Market Situation', rendered into English by the translator], with only one issue published.

In 1927 he moved to Warsaw. He performed design calculations for the ceilings of the Polish Army Museum, patented his solution for a reinforced concrete ceiling with two slabs, and was a promising construction specialist. At the same time, he independently studied the works of various economists and began to collaborate with specialized journals: Przegląd Gospodarczy ['The Economic Review'] and *Przemysł i Handel* ['Industry and Commerce']. From 1929-1936, he worked as a cartel and concern clerk at the Institute for Business Cycle and Price Research (Instytut Badania Koniunktur Gospodarczych i Cen) in Warsaw, collaborated with Edward Lipiński, and worked on national income estimates in Poland. In 1930 he married Adele Sternfeld, an activist of the International Red Aid. "Kalecki was a self-taught economist. He completed no university programme in economics; as a matter of fact, he had no university degree at all. He enrolled in a technological university programme, but he dropped out to support himself and his father, who had lost his small spinning mill" (Osiatyński, 2015; Osiatyński, 2019) [rendered into English by the translator] In 1936 he received a scholarship from the Rockefeller Foundation and went to Sweden, Norway, and England. In 1936-1938 he worked at the London School of Economics and as an assistant in the Economics Department of Cambridge University.

After the outbreak of World War II, he worked at the Oxford Institute of Statistics; his research into British war economics paved the way for him to become the intellectual leader of a group of left-wing economists. From 1945–1955 he worked at the ILO in Montreal, from 1946 in the Department of Economic and Social Affairs of the UN Secretariat, as deputy director of one of its divisions and an economic expert for the governments of several countries, such as Israel (1951), Mexico, India (1959–1960), Cuba (1961). Attempts to restrict and censor his statements forced him to resign. After his return to Poland in 1955, he performed the following functions:

1955–1957: Economic Advisor to the Planning Committee under the Office of the Council of Ministers;

1955–1961: Head of the Department of Economics of Modern Capitalism and full professor (1956) at the Institute of Economics of the Polish Academy of Sciences;

1957–1960: President of the Main Committee for Long-Term Planning;

1957–1963: Deputy Chairman of the Economic Council under the Council of Ministers;

1958: Corresponding Member of the Polish Academy of Sciences;

1961–1968: President of the Committee for Social Research in the Polish People's Republic at the Polish Academy of Sciences;

1961–1969: Professor at the Central School of Planning and Statistics (now: Warsaw School of Economics), Department of Political Economy, Faculty of Foreign Trade;

1962–1968: President of the Scientific Council of the Interuniversity Institute for Economic Problems of Underdeveloped Countries of the Central School of Planning and Statistics and the University of Warsaw;

1964: a doctor honoris causa of the University of Warsaw;

1965: a doctor honoris causa of the Wrocław University of Economics;

1966: the winner of the State Prize of the 1<sup>st</sup> degree, for his work entitled *Zarys teorii wzrostu gospodarki socjalistycznej* ('Introduction to the Theory of Growth in a Socialist Economy');

1967: the winner of the Oskar Lange Prize awarded by the Polish Economic Society.

He created a research community called the Warsaw School. In 1968, as a result of an anti-Semitic, pseudoscientific campaign against this community and against him personally, he left his posts and took early retirement. He left an enormous scientific legacy and many writings; those in the Polish language include [the titles in square brackets rendered into English by the translator]:

- Próba teorii koniunktury ('An Essay on the Theory of the Business Cycle'), 1933;

- Szacunek dochodu społecznego w roku 1929 ['An Estimate of Social Income in 1929'], co-authored with Ludwik Landau, 1934;

- Dochód społeczny w roku 1933 i podstawy badań periodycznych nad zmianami dochodu ['Social Income in 1933 and the Basis of Periodical Studies into Income Change'], co-authored with Landau, 1935;

- *Teoria cyklu koniunkturalnego* ('A Theory of the Business Cycle'), 1935;

– Place nominalne i realne ['Nominal and Real Wages'], 1939;
– Teoria dynamiki gospodarczej ('Theory of Economic Dynamics'), 1958;

– Zagadnienia finansowania rozwoju ekonomicznego ['The Financing of Economic Development'], in: Problemy wzrostu ekonomicznych krajów słabo rozwiniętych ['The Economic Growth Problems Faced by Underdeveloped Countries'], Ignacy Sachs, Jerzy Zdanowicz (eds.), 1959;

– *Uogólnienie wzoru efektywności inwestycji* ['The Generalisation of the Investment Efficiency Formula'], co-authored with Mieczysław Rakowski, 1959;

Polityczne aspekty pełnego zatrudnienia ('Political Aspects of Full Employment'), 1961;

 O podstawowych zasadach planowania wieloletniego (Osiatyński, 1982) ['On the Main Principles of Multiannual Planning'], 1963;

- Zarys teorii wzrostu gospodarki socjalistycznej ('Introduction to the Theory of Growth in a Socialist Economy'), 1963;

– Model ekonomiczny a materialistyczne pojmowanie dziejów ['An Economic Model and the Materialist Conception of History'], 1964.

He is the author of many articles and papers in English:

- Mr Keynes's Predictions, Przegląd Socjalistyczny, 1932;

- An Essay on the Theory of the Business Cycle, 1933;

- On foreign trade and domestic exports, *Ekonomista*, 1933;

– Essai d'une theorie du mouvement cyclique des affaires, *Revue d'economie politique*, 1935;

– A Macrodynamic Theory of Business Cycles, *Econometrica*, 1935;

– The Mechanism of Business Upswing (El mecanismo del auge económico), *Polska Gospodarcza*, 1935;

 Business upswing and the balance of payments (El auge económico y la balanza de pagos), *Polska Gospodarcza*, 1935;

- Some Remarks on Keynes's Theory, *Ekonomista*, 1936;

- A Theory of the Business Cycle, *Review of Economic Studies*, 1937;

– A Theory of Commodity, Income and Capital Taxation, *Economic Journal*, 1937;

- The Principle of Increasing Risk, *Económica*, 1937;

- The Determinants of Distribution of the National Income, *Econometrica*, 1938;

- Essays in the Theory of Economic Fluctuations, 1939;

– A Theory of Profits, *Economic Journal*, 1942;

- Economic Implications of the Beveridge Plan (1943);

 Theory of Economic Dynamics: An essay on cyclical and long-run changes in capitalist economy, 1954;

– Studies in the Theory of Business Cycles, 1933–1939, 1966;

- Trend and the Business Cycle, *Economic Journal*, 1968;

 Class Struggle and the Distribution of National Income (Lucha de clases y distribución del ingreso), Kyklos 1971;

- Selected Essays on the Dynamics of the Capitalist Economy, 1933–1970, 1971.

Michał Kalecki took his place in the history of economic theory as the author of the work entitled *Próba teorii koniunktury* ('An Essay on the Theory of the Business Cycle'), published in 1933. M. Kalecki was mainly concerned with the study and explanation of the necessary relationships existing between the rate of economic growth, the return on capital and

the rate of investment, on the one hand, and between the capital-labor ratio, the productivity of labor and the capital intensity of national income, on the other. Combining these two lines of analysis and showing the different trends and types of technological progress, he examined the regularities determining the acceleration of growth under both labor reserves and full employment. Very importantly, he distinguished between direct and indirect factors of growth, and – within the framework of the latter – distinguished non-investment factors. M. Kalecki also noted the need to distinguish between the means of increasing national income, mainly productive investment, and the purpose of its creation, that is, non-productive investment, together with collective and individual consumption. Therefore, he viewed the growth process in terms of the relationship between the level of consumption and the level of investment. For the same reasons, with regard to non-investment factors, he attached great importance to various improvements in the organization of labor, management of material resources, etc. M. Kalecki also conceptualised barriers to economic growth and pictured the necessary effects of neglecting them (Kalecki, 1963).

#### 3. The effective demand theory

Michał Kalecki was one of the first economists in the world, perhaps even the very first to make a fundamental observation: he noted that wages are a very important component of demand, not just the cost of production (Toporowski, 2013; Toporowski, 2018). In fact, this is the most important component, because wage earners tend to spend almost all of their income, while entrepreneurs are characterized by a much greater propensity to save. Therefore, a decrease in wages will entail a decrease in demand. This, in turn, means that most of the company's profits will remain only on paper. To make a profit, production alone is not enough - the firm must also sell its products. Therefore, lower wages will mean higher inventories, or frozen assets, rather than higher profits. An economy in distress will suffer even greater shocks because it will use less of its potential.

According to Kalecki's observations, economies grow rapidly and unemployment declines when capitalists invest heavily. They make investments where they see such projects as profitable, or see opportunities to sell their goods. Kalecki argued that wage earners spend as much as they earn, while capitalists spend as much as they spend. Aggregate demand grows if workers earn and spend more, and capitalists spend more – on consumption and investment. In such a situation, capitalists' profits rise as well. An individual capitalist can also increase his profits by reducing wages, but this is not a recipe for all capitalists. On the contrary, lower wages lead to lower demand and lower profits. A capitalist can allocate his profits to investment, consumption, or savings if he refrains from investment. The more capitalists save, the deeper the crisis, the sharper the drop in their profits and the rise in unemployment. Why aren't they investing? Because previous investments have created productive assets that can no longer be fully utilized because there is insufficient demand for the goods in question. Returns on investment are declining, and capitalists prefer to save part of their profits rather than spend them. According to Kalecki, this is a typical paradox of the capitalist system. The expansion of production capacity, and thus the enrichment of the population, heralds a future crisis. Effective demand, or the economy's ability to sell the goods and services it produces, is limited by savings. Kalecki disproves the common notion that people get richer through savings and labor. This is only justified for the individual capitalist, not for the entire social class. He built his model of the business cycle on the fundamental premise that "capitalists earn as much as they spend on investment and luxury consumption, while wage earners spend as much as they earn" (Dach, Szopa, 2004) [rendered into English by the translator]. It meant that profits and national income were determined by effective investor and consumer demand. This meant that profits and national income were determined by the effective demand of investors and consumers. Kalecki's emphasis on the key role of aggregate demand was a revolution in economic thought (Kalecki, 1962).

According to Kalecki, increased profits do not drive investments; instead, they are determined by the demand for products to be produced by such investment projects. Enterprises prefer to expand their production capacity where they see adequate market demand among customers with the appropriate purchasing power. Therefore, wage cuts will only exacerbate any economic downturn. First, the increase in profits will not be as significant as it may seem, since most of it will remain on paper. Second, businesses will not be inclined to invest when faced with a lack of demand for their goods. Kalecki rejected the assumption that savings (or accumulated profit) begets investment. In his view, the opposite is true: investment generates savings (or profit). Most investments are financed by loans or bonds, not by accumulated profits. Savings are not a prerequisite for investment - a prerequisite is demand for the products produced with such investment. Therefore, wage cuts in a crisis are a ready recipe for plunging the economy into a prolonged recession. If demand falls, businesses lose motivation to increase production and employment; rather, they may even reduce these parameters, assuming poor prospects for the future (Osiatyński, 2013).

# 4. Wages as a share of national income

Stable economic development requires an appropriate share of wages in national income. Kalecki attached great importance to the distribution of national income between wages and profits. He viewed the share of profits in national income as a degree of monopolization. Enterprises with a dominant market position can impose higher markups on their products or dictate higher prices. Thus, the share of profits in national income increases, but prices rise relative to wages. Hence, wage earners can buy less, hence demand declines. Since wage earners spend most of their income, while businessmen save most of their income, an increase in business profits will not create enough demand to compensate for the declining purchasing power of wage earners. Therefore, an appropriate share of wages in national income is necessary for stable economic development.

As Kalecki pointed out, an increase in demand leads to an increase in supply, not an increase in prices. Critics of this approach often argue that artificially stimulated demand should lead to higher prices. Therefore, wage earners would gain nothing from higher wages or from an increase in the share of wages in GDP, since their purchasing power would remain unchanged. Because of rising prices, real wages will remain at the same level, even if nominal wages rise. In a competitive economy, businesses will not seek to increase their profits by raising prices, for they will be afraid of losing their customers. If they are faced with price increases, they will respond by expanding production to multiply profits by increasing sales. Since an increase in production increases employment, an increase in demand can lead to an increase in employment. As a rule, only primary agricultural products respond to increased demand by increasing prices, because it is impossible to increase their supply in the short term – agricultural production takes time. Higher demand can also contribute to higher prices if production capacity is fully utilized or if businesses fail to increase supply. But this can only happen under conditions of full employment, which was not the case in the 1930s, when Kalecki presented his theories.

Michał Kalecki's approach to budget deficits was also revolutionary. For classical economists, government spending was a necessary evil, while budget deficits were considered the supreme evil. Kalecki viewed deficits as the most important instrument of official power. According to classical theory, government spending can eliminate private investment; according to the Polish economist, it can even stimulate it. If the economy faces a demand barrier, it does not necessarily plunge into crisis, but the growth rate is below potential. Debtfinanced government spending could push up

domestic demand by replacing frozen assets (e.g., unused savings). If the government announced a public works program that employed the unemployed, it added the wages of such workers to domestic demand. In addition, when an expansion of government procurement was announced, it encouraged businesses to increase their capacity (investment, employment) in order to be able to fulfill such government contracts. In Kalecki's conception, the budget deficit is not a necessary evil; on the contrary, it is a very practical tool for replenishing domestic demand in order to stimulate investment and growth. Unfortunately, during the 2008 crisis, European policymakers took a different tack: they imposed strict requirements on southern EU member states to cut government spending and limit social services and benefits to reduce the deficit, which only worsened the situation for these countries suffering from the effects of declining domestic demand. The European debt crisis was undoubtedly a time of triumph for one forgotten man, Michał Kalecki. During the economic downturn, his work was cited by economists from around the world, including Nobel Prize laureate Paul Krugman. Julio López and Michael Assous wrote a book about Kalecki (Lopez, Assous, 2010/2011). First of all, however, his thought was confirmed by the events that took place in southern Europe after 2008.

# 5. The theory of the business cycle

The theory is primarily the basis for analysing the business cycle and economic dynamics, but it also contains the mechanism of the Khan-Keynes multiplier and the classical theory of employment known from 'The General Theory of Employment, Interest and Money' by Keynes. It was also the basis for economic intervention and full employment policies, which contributed enormously to the practical application of the theory. In the 1930s it showed the way out of the U.S. crisis of 1929-1933. In Germany it served as the basis for policies already pursued by the government. It also helped the United Kingdom finance wartime spending with relatively limited inflation during World War II. After the war it became the basis for nearly 25 years of prosperity in Western Europe and many other advanced economies. Scholars widely discussed and appreciated Kalecki's 'Theory of Economic Dynamics' (Teoria dynamiki gospodarczej) 'Political Aspects of Full Employment' and (Polityczne aspekty pełnego zatrudnienia), presenting the political mechanism of the business cycle.

Together with L. Landau, Kalecki engaged in pioneering work in estimating the levels of investment, consumption and national income in Poland, especially in *Szacunek dochodu społecznego w*  *roku 1929* ['An Estimate of Social Income in 1929'], probably the world's first attempt to break down national income by social class.

# 6. Conclusions

Until the late 1920s, the national economy as a whole was not a subject of scientific research. With the emergence of deep economic crises and mass unemployment in the 1930s, economic theory took up macroeconomic problems in order to explain the causes of such phenomena, mitigate their effects, and develop ways to solve them. However, it required an essential shift in thinking about the functioning of national economies. First of all, scholars needed to reject the thesis prevailing in economic theory from the beginning of the 19th century and stating that producers' supply determined the level of aggregate demand, thus making general over-production impossible. J.M. Keynes built a new macroeconomic theory based on the fundamental proposition that manufacturers' supply (the levels of national income and employment) depended on aggregate demand. In the mid-1930s, a similar thought was formulated by Poland's most eminent economist, Michał Kalecki. He built his model of the business cycle on the aforementioned fundamental supply. This meant that profits and national income were determined by the effective demand of investors and consumers. That J.M. Keynes and M. Kalecki emphasized the key role of aggregate demand was a revolution in economic thinking. Although they conducted their research in different countries, after becoming acquainted with each other's work, J.M. Keynes and M. Kalecki became friends and authored changes in the way national economies functioned. To this day, economists wonder which of them first developed the conceptual model.

The distinguishing feature of the current crisis is the special form of the initial shock. The economic history of the world has known several events of similar origin (such as the crisis of 1929-1932, analysed by M. Kalecki). The ongoing discussion most frequently refers to the Spanish flu pandemic from the early 20th century. The significance of the new coronavirus pandemic for the functioning of the world economy cannot be overstated. Discussions have emphasized that the pandemic has led to a decrease in demand and consumption, which constitutes a negative demand shock. Since the pandemic shock disrupted business operations, it should also be seen as a negative supply shock. It should be noted that the COVID-19 pandemic is not merely a short-term change in economic activity. Various international institutions predict that it will have a long-term impact on the functioning of the global economy. There are voices emphasizing that the coronavirus crisis has been a catalyst for processes such as digitization and robotization. An important development in the labor market has been the spread of remote work. Another important aspect may be the long-term change in payment habits in societies around the world, as millions of people have switched from cash to non-cash payments.

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