THE SCIENTIFIC BEGINNINGS OF THE THEORY OF THE BUSINESS CYCLE

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Abstract

The economic crisis of 1847 was the first economic crisis of global reach that has become an important factor in the development of the theory of the business cycle. Based on this, the first attempts at scientific justification cyclical fluctuations of the capitalist economy were presented by Juglar, Marx, Jevons. Explanation of the business cycle is to this day the most controversial issue in economics. Each school has its own economic cycle theory, this explanation, however, are mutually incompatible, and often even excluded. The importance of the crisis in 1847 is not limited to economics. The importance of the crisis in 1847 is not limited to economics, though the development of this discipline vital importance. The importance of the crisis in 1847 also affected political science and sociology, as a response to the economic downturn causing in Europe a wave of social revolutions, which destroyed the last surviving remnants of feudalism in Europe.

Key words: economic crisis, bussines cycle, social revolution.

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Introduction

In the academic year 2012-13 we are commemorating 150th anniversary of economy as a scientific discipline: 150 years have passed since Clément Juglar published his first book *Commercial Crises and Their Periodic Recurrence in France, England and the USA* (in original *Des Crises Commerciales et de leur Retour Périodique en France, en Angleterre et aux États-Unis*). Juglar was the first economist who not only recognized the cyclicality in the evolution of capitalist economy, but, above all, presented the first consistent concept explaining this cyclicality. Although today we can dispute many of Juglar's conclusions (the economic cycle is a phenomenon on which opinions of different schools of economic thought diverge more than on interpretations of any other phenomenon), one thing is for sure: Clément Juglar will keep the scientific primacy once and for all. Appreciation of Juglar's merit is also reflected in the fact that the medium-term oscillation of the real output, which he defined, has been referred to as "Juglar cycle" to the present day. The following paper is dedicated to the beginnings of the scientific theory of the business cycle.

1 Historical Background

Cyclical recurrence in economic development is nothing that would be exclusively typical of capitalism. Recurring oscillations in economic activity occurred also in previous economic systems: in feudalism as well as in slavery. However, the cause of cyclical oscillation was different: crises then were mainly of agricultural nature, whereas the capitalistic cycle affects particularly manufacturing industry and, subsequently, the tertiary sector. The essential difference between a cycle in capitalism and a cycle in previous systems lies elsewhere: it is the fact that recession in feudalism (e.g. due to crop failure that occurred from time to time) always resulted in sharp increase in prices of scarce commodities; therefore, it was typically due to demand overhang. In contrast, when the capitalist business cycle falls, the contrary can be observed; prices are falling as there is no sufficient demand for the goods produced (therefore, we speak about supply overhang).

Quite naturally, the capitalist business cycle occurred in connection with industrial revolution, i.e. with the arrival of mass production in machine age. In manufacture, the period before capitalism, such cyclical oscillation did not occur, which is why Adam Smith, the "father" of modern economics, does not mention it in any of his works.

The first sharp decrease in industrial production in 1825, which soon started to be known as the "crisis" in the period literature, affected only the United Kingdom. The same applies to the following "crisis" of 1836, which also clearly confirms the relation between industrial advancement and the arrival of capitalistic cycle; the United Kingdom then actually was several decades ahead of the "rest of the world" when it was starting to use machines in production. However, the next economic "crisis" (in 1846) also started in the United Kingdom, but spread very quickly to other European countries, i.e. the countries where industrial revolution was taking place. Here, in Continental Europe, this crisis occurred in 1847 (continuing into the following year) and its economic, political and social impacts became one of the factors that triggered events of the revolutionary year of 1848.

The peculiarity of economic development in the first half of the 19th century did not escape attention of the contemporaries, but the first attempts at explaining this phenomenon had very little in common with a scientific approach. With regards to the ongoing social changes after the events in 1847-48, the main emphasis was laid especially on political aspects and economic drops were considered to be caused by coincidence or subjective reasons. Economics, which was then forming two different approaches (classical economics based on labour theory of value represented by Ricardo, Marx and Mill, and then nascent neo-classical economics based on marginalistic approach, then represented by Thünen, Gossen and Cournot), was oblivious of the economic cycle. In this respect, the situation started changing in the 1860s.

At the present time, we can say the question of economic cycle has been vastly explored. Different schools of economic thought, either of so-called fundamental economics or others, created many concepts clarifying cyclical oscillations and many types of different cycles have been described (Kitchin short business cycles, Juglar medium-term cycles, and Kuznets, Kondratiev or Schumpeter long-term cycles). The truth is that in some cases the cycle explanations are mutually non-compatible, sometimes even contradictory and the terminology used is not uniform, which applies to the medium-term cycle, in particular. Its typical duration was eleven years at the time when it was first identified; however, as of the middle of the 19th century a tendency to distinct shortening has prevailed, so at the present one medium-term economic cycle (also known as business or industrial cycle) lasts about 7 or 8 years.

2 Conception of the Scientific Theory of the Business Cycle

The way to the current level of knowledge concerning the recognition of factors causing the medium-term economic cycle is rather complicated. Its beginnings date back, as we mentioned above, to the middle of the 19th century: in 1847, in some countries with overlaps to 1846 and/or 1848, a considerable part of economically developed world was struck by relatively strong economic decrease. On one hand, this decrease undermined optimistic expectations of "unstoppable" technical development and the related growth of prosperity, on the other hand, it strengthened democratization tendencies in many European countries, where attributes of feudal absolutism had prevailed in great extent until then.

As a consequence of the crisis of 1847, a wave of political and social revolutions ran through Europe, as the deterioration of the population's living standards caused radicalization, particularly of unprivileged social strata and classes. As a long-term consequence, first attempts at explaining the cyclicality of capitalist economy started appearing in economic science that was being formed.

Times of contraction and periods of expansion of national economy that keep periodically changing, represent one of the most significant macroeconomic instabilities, *a fortiori,* also because the unemployment rate strongly fluctuates together with different phases of the cycle. The situation on the aggregate labour market is subsequently reflected in effective demand, which diminishes as the unemployment rate grows, which further impairs the possibilities of selling industrial goods. Many were aware of this fact even before the middle of the 19th century. As historian Thomas Carlyle wrote in his book *Past and Present* (1843): “We accuse you of making above two-hundred thousand shirts for the bare backs of mankind.”

Several decades had to pass between recognizing the problem and formulating the first scientific hypotheses, while economy did not avoid some big mistakes.

This applies especially to a thought by William Stanley Jevons, who attempted to correlate business cycle patterns with solar activity in his *Commercial Crises and Sunspots* (1878). The basic thought presumes that solar activity influences weather on the Earth, which has subsequently impact on agricultural crop and as a result farmers’ income fluctuates together with their demand for industrial goods. The most significant cycle lasts eleven years (to be more precise, it is a 22-year-long so-called Hale cycle that consists of two 11-year half-cycles with fluctuating activity, but with the opposite polarity of the sun’s magnetic field), which equalled exactly the interval between economic crises in the first half of the 19th century (1825, 1836, 1847). The fact is that there was time correlation, but it is not enough for proving causal relationship. And since the economic cycle started to deviate from the eleven-year period as of 1850 (crises in 1857, 1866, 1873, 1882, etc.), all reflections on the correctness of this hypothesis proved wrong and Jevons‘ attempt to explaining the business cycle was disconfirmed.

The first attempt at scientific reasoning of empirically observed cyclical oscillation was presented by Clément Juglar, although he was not a representative of any of the established schools of economics and his occupation was not related with economics. In his mainly descriptive work *On Commercial Crises etc.* (1862) he tried to explain a business cycle using monetary causes (influence of bank loans, etc.).

Classical economics represented by Karl Marx presented an alternative explication of the business cycle with more than a 20-year delay. Marx presented his concept of the medium-term cycle in his second volume of *Capital* (1884); the author noticed how demand and supply adjust spontaneously to recurring economic rises and falls. Marx did not actually use the terms “demand” and “supply”, as these were introduced in economic theory six years later by Alfred Marshall (*Principles of Economics*, 1890), but the meaning of Marx’s terms “the one-sided purchases” and “the one-sided sales” is obvious. According to Marx, periodically recurring crises are caused by overproduction, since their primary cause lies in the fact that machine mass production produces a too large offer of goods that the vast strata of the population (particularly wage earners reliant on earned income, i.e. wages) are not able to absorb with their demand. This logically results in serious disorders, market disequilibrium, when "the balance can be maintained only on the assumption that in amount the value of the one-sided purchases and that of the one-sided sales tally" (Marx, 1954, p. 517). Several lines below, Marx goes on to assert about conditions in capitalistic goods production that "they change into so many conditions of abnormal movement, into so many possibilities of crises, since a balance is itself an accident owing to the spontaneous the phase of nature of this production."

Marx considers the recession phase (which is understood as "crisis" in his terminology) to be the basic phase of capitalistic cycle, since a "crisis" is a starting point of new big capital investments. According to Marx, "this much is evident: the cycle of interconnected turnovers embracing a number of years, in which capital is held fast by its fixed constituent part, furnishes a material basis for the periodic crises. During this cycle business undergoes successive periods of depression, medium activity, precipitancy, crisis." (Marx, 1954, p. 197).

3 Resignation to Forming a Unified Theory

The fact that Juglar's and Marx's approaches differ, is nothing exceptional in the field of science, especially in stages when a scientific theory is being constituted. In the long term, however, we could presume that on the basis of further research and specifications, particularly by quantitative (statistic) analyses, these opinions would approximate and the differing views of the business cycle and its causes would eventually unify, thus creating a non-conflicting, generally accepted theory that would explain all causes of the business cycle as well as other relating aspects. However, this did not happen. Quite on the contrary, it would be hard to find an area of economics with more differing opinions and which would provoke (evidently because of possible social-political consequences) sometimes almost hysterical reactions.

At the present, there are dozens of different approaches to the theory of cycles and it is not an exaggeration to say that each school of economics has its own explanation of the business cycle, which is usually not compatible with interpretations of other schools. This trend started in late 1890s/early 1900s when institutional economics was created. Institutional economics is characterised by stress on so-called "soft" factors influencing behaviour of different subjects. For this reasons, institutional economics logically criticises the neoclassicists' concept of so-called "homo economicus" and the orientation (based on this economic human) on optimizing economic processes and objectives. It was particularly Thorstein Veblen, the most prominent representative of institutionalism, who is known for his scathing attacks against the marginalistic approach of the neoclassicists.

Other institutionalists did not lag behind when criticising the neoclassical economy either. Regarding the theory of cycle, institutionalists are quite right to criticise the ambiguity or almost sceptical approach the other schools of economic thought maintained when explaining this phenomenon. American Wesley Mitchell wrote in his book *Business Cycles* (1927) that: "Finally, some economists, for example Wilhelm Roscher, despaired of finding any theory which would account for all crises in the same way. To these men a crisis is an "abnormal" event produced by some "disturbing cause," such as the introduction of revolutionary inventions, the development of new transportation lines, wars, the return of peace, tariff revisions, monetary changes, crop failures, changes in fashion, and the like. This view assumes that the equilibrium of economic processes has become so delicate that it may be upset by untoward conjunctures of the most dissimilar kinds, and points to the conclusion that each crisis has its own special cause which must be sought among the events of the preceding year or two" (Mitchel, 1927, p. 9-10).

A logical consequence of this critical approach towards the opinions of other schools of economic thought was the conception of own theory of the business cycle that is linked particularly to English institutionalist John Hobson. According to Hobson, cycles are not caused by monetary causes (as Juglar claims) or overproduction (as Marx claims) but by underconsumption.

According to Hobson, the basic cause of crises is the uneven distribution of riches, which generates too low effective demand in society; in poor strata it is chiefly due to low wages, in rich strata due to falling marginal utility of their high wages: "This unearned surplus flowing into excessive money savings, incapable of investment in serviceable capital, is the direct cause of the stoppages of industry, the collapse of prices and the unemployment, classed under the term trade depression" (Hobson, 1931, p. 64).

Hobson claims that "the application of this surplus, the forced gains that come from economic advantage in bargaining, to enlarge the spending power and consumption of the workers and the community, will remedy these chronic maladjustments by raising the aggregate power of consumption to keep pace with every increase of productive power" (Hobson, 1931, p. 63). To increase the proportion of the general income that comes to the wage-earners, whether through high wages, or through the "divi." of the co-operative store, or through increasing social services, is the essential condition for the maintenance of full employment in those industries that are most prone to periods of depression and unemployment" (Hobson, 1931, p. 67).

Briefly said, Hobson recommends remedying cyclical oscillations of economy and the related crises (depressions, recessions or any other economic term used for the recession phase of a cycle) with higher rate of redistribution processes in society, which was relatively popular approach in the early 20th century, but today it would be uncompromisingly refused by most economists. This also makes it easy to understand why it is so difficult to reach a generally accepted consensus among scientific economists when explaining business cycles (and especially when formulating a countercyclical economic policy).

Conclusion

150 years have passed since the first attempt at conceiving a scientific theory of the business cycle, but we are no closer to a generally accepted theory of the business cycle, despite all the findings gathered and other empirical material available. For the sake of completeness, we should add that also the institutional theory of underconsumptions is far from having the last word in what the economics has to say on the topic of the business cycles. The Austrian school of economics presented its concept (actually a group of concepts) and during the 20th century the Keynesians and monetarists came with their own theories, to mention at least the most significant schools. It is quite an obvious fact that a unified theory of business cycles (presuming it can be conceived, which is not granted) will not appear in schoolbooks any time soon.

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