

## HISTORY AND ACTUALITY REGARDING THE "WAVES" OF THE ECONOMIC PROGRESS

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### ABSTRACT

*The paper History and actuality regarding the "waves" of the economic progress goes on the line of economic growth and development aiming to define the interdependent factors which cause and maintain it. The development's sinuous undertaking is always subject to changes, offering new interpretations of the factors that cause it. In this way, we will stop at a number of studies that have seen the economic development as a succession of "waves" of change. The most representative ones belong to A. Toffler and Maynard and Mehrtens.*

**Keywords:** Economic progress, wave of progress, agricultural revolution, industrial revolution, knowledge revolution

### INTRODUCTION

The global and deeply interconnected society we all live in today, when the world's population has exceeded 7 billion people, generates new dilemmas and questions, theorists and policymakers are increasingly often surprised by the speed of the changes occurring in society and economy. It is getting more difficult to understand towards which direction the global economy is heading and what the prospects of the business organizations are in the post-crisis context. Paradoxically, even in the context of financial crisis period from 2007 to present, some business organizations have strengthened their position in the international markets; similarly, some countries such as China, Poland and India have even recorded spectacular growth rates over the past five years. How to explain this contradictory economic "puzzle" of the global economic development? What macroeconomic strategies have been applied by the successful macroeconomic countries / organizations? What are the determinant / essential factors for the economic growth of a country?

Through a trilogy that made him famous, Alvin Toffler argued that all the human history had a very limited number of distinct "waves" of economic progress, namely, three "waves" that clearly differentiate within more than 10,000 years (Toffler, 1973, 1983, 1995). In essence, Toffler discusses the first "wave" of the economic progress associated with the agricultural revolution, a second "wave" of progress that began with 1776, the industrial revolution in England; and the third "wave" of economic progress since the IT revolution, namely the exploitation of knowledge as a distinct type of resource (synthetic, the first "wave" accounted for about 10,000 years, the second "wave" accounted for about 300 years and the last "wave" about four decades).

The term "fourth wave" of the economic progress belongs to Maynard and Mehrtens (1993), who use it in the work of the same name, "The fourth wave. Businesses in the XXI century", in essence, it is a concept derived from Alvin Toffler's theory, who predicted three "waves" of progress. (Maynard, Merthens, 1997). In Toffler's point of view, the "waves" of the progress do not resemble in time nor in way of expression, structure, intensity and so on; names suggested by Toffler and later taken over by other analysts describe only in a

conceptual / synthetic way the manner in which they worked in the past and will transform in time economies, politics, religion, business and global power.(Toffler, 1983) Moreover, the term "wave" of progress proposed by Toffler, is, we believe, very suggestive as it includes a dose of unpredictability, the major gap that can occur anytime between the top of a "wave" and its base, the dramatic consequences that may arise for the organizations / countries that are caught within the succession of two distinct waves (sudden collapse of a "wave" in and the appearance of the next "wave" of progress).

In our opinion, the main coordinates of the economies in the first "wave" were: agricultural production, low qualified workforce, low labor productivity, "pre-Newtonian" production technology and social hierarchy with few opportunities for a vertical mobility. As surprising as it may seem, many third world countries are still caught in the traps of this "wave".

The second "wave" coincided with the first industrial revolution, occurred due to the strengthening of the social, political and institutional framework at national level. Stable legal regulations adopted by the Governments supported the social and political order; they also favored the installation of an atmosphere fit for the development of the entrepreneurship vision.

Economies of the third "wave" sketched by Toffler have undergone profound structural transformations with the rise of some sectors and the decline of others, by restricting traditional industries and the rise of the computer, by translating the "hardware" work to the "software" work; in this economy the society became predominantly urban and the labor skills and productivity have improved.

The fourth "wave", as was sketched by Maynard and Mehrtens, started in some countries with the 90s and continues today (it is about countries like USA, Canada, Japan, South Korea, Germany etc.); it is less obvious, but we are all part of the contemporary translation period from the third to the fourth "wave" of progress, even if the realization of this reality differs greatly from country to country.

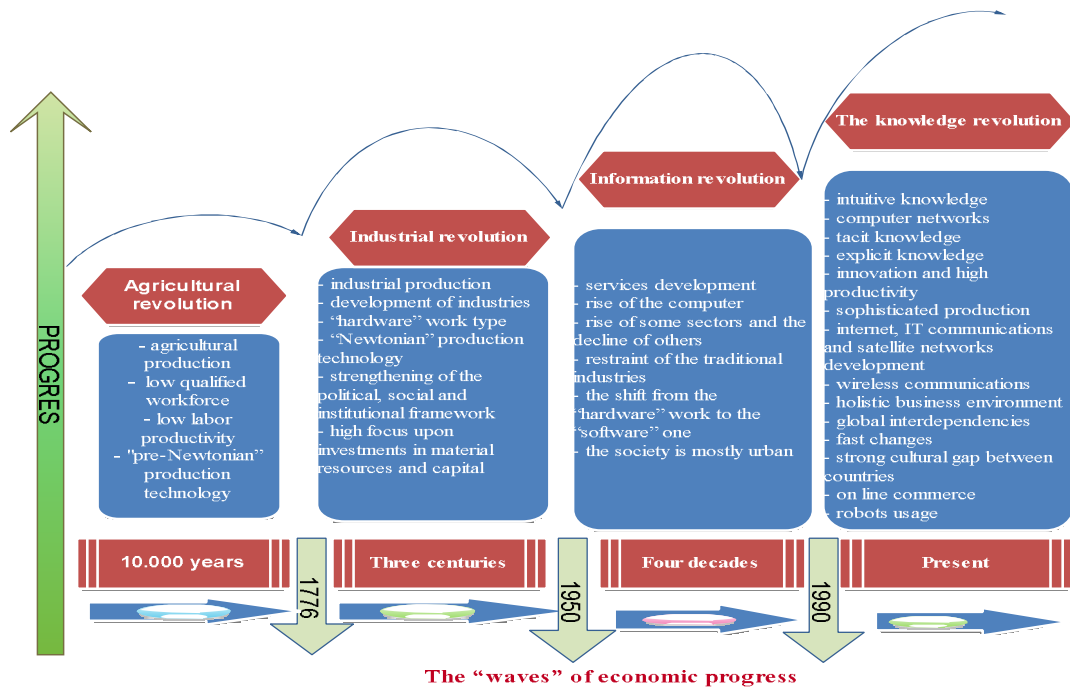


Figure 1. The "waves" of economic progress

Beyond sequence in time of the four "waves" of progress, their duration, and / or other characteristics, we notice that individuals, members of various organizations perceive and manage more difficult the multiple changes that a new type of economy can bring; the quantifiable progress in money, macroeconomic speaking, can also induce negative influences in family life, in the psychological component of the employee and so on. Certainly, as the historical record shows, power and wealth were associated with active materials with different physical resources (capital, gold fields, infrastructure and so on) (Maciarelo, 2005). The Industrial Revolution from the late seventeenth century was based on steam power, physical labor and capital; it founded unprecedented change in the human history (inducing negative effects, although difficult to quantify, on individuals as employees), generating new "revolutions / waves" in economy and a "spasmodical" economy, as Toffler says. (Toffler, 1996)

Today we talk insistently about a knowledge revolution as a noticeable shift from an economy based on material resources to a knowledge and human capital -based economy. (Fukuyama, 2004) Contemporary writers such as Jeremy Rifkin, Robert Heilbroner and Peter Drucker use to describe reality in terms like "the post-market era", "post-capitalist society" or "post-industrial society", they talk of major changes in the global society, referring essentially to the same concepts that Maynard and Mehrtens have sketched in the work entitled "The fourth wave. Business in the XXI century". In fact, it is about an almost imperceptible shift with different degrees of manifestation from one country to another and from one organization to another, regarding the focus they place on different categories of resources; "some" continue to exploit mainly labor, land and capital (as traditional resources), while "others" deliberately aim to exploit knowledge as distinct and inexhaustible resource.

It is obvious that the exploitation of knowledge as a distinct resource type cannot occur except through the human capital available to a country and / or organization. It is equally clear, we think, that any "bonus" of education and / or qualification that is provided for the younger generation in one country would later become a major asset in global competition with other countries. Furthermore, Maynard and Mehrtens argued a lot about the involuntary know-how, respectively intuitive knowledge and its role in the economic progress.

### **SPECIFICITIES FOR THE FOURTH “WAVE” OF PROGRESS**

As we have shown in the first part, Maynard and Mehrtens have gone further from Toffler and have completed the three “waves” of change and /or economic progress with a fourth “wave”; it is difficult to locate per country or regions when precisely did this fourth “wave” start, but it is felt pretty acutely in the life of organizations and individuals (in figure 1.1 we have located the beginning of this wave as taking place in the beginning of the 90’s). Following the idea that Toffler’s theory is sufficiently argued, Maynard and Mehrtens emphasize the fact that the period of manifestation for each and every “wave” becomes shorter and shorter; in the case where each “wave” behaves as the curve of a bell, that is, it becomes tighter and shorter in time, then we can deduce the outstanding “pressure” which the passing from the third to the fourth “wave” induces over individuals. In fact, the two authors state certain characteristics of the fourth “wave” which indirectly show the social pressure specific to the economies of this fourth “wave”, respectively (Maynard, Merthens, 1997):

1. The re-spiritualization of society (this does not mean an extension of religion, but a “returning to self”; thus, an increased attention is being given to the being’s spiritual dimension, one talking more and more about “spiritual intelligence”); this re-spiritualization manifests itself in different forms, including participating within the New Age actions, auto-conceived methods of self-exploring (e.g., meditating) etc;

- we're facing a revival of the value once attributed to intuition (to non-rational knowledge), thus increasing the practice of combining intuitive knowledge (tacit) with the traditional analytical faculties;
2. Decline of materialism and scientism; a fundamental reorientation of values takes place, such as the passing from competition to cooperation, from exploitation to assistance, from materialism to spirituality, from consumerism to the preoccupation for social and economic justice; practically, one sees a departure from materialism, towards intangible value (honor, persuasion, self-respect, relationships quality and personal fulfillment);
  3. Stable institutions, with a lead position when it comes to global responsibility and citizenship; one suggests the emergence of an inter-connected economy, performed in a world without borders, with inter-governmental and non-governmental organizations, which focus on the people's joint interests; one talks about the evolution of an economy, different both from capitalism, but also from socialism, an evolution of democracy which could unite the enterprising spirit of capitalism with an illuminated preoccupation for social responsibility;
  4. Redefining the concept of "rich", especially as method of quantification within the accountancy systems (both from financial and social points of view); we invoke here the "social accountancy" concept, which doubts "the market focusing" and tries to determine the social costs of production, that is, how much people pay – in terms of air and water pollution, road congestion, soil depletion, health threats etc. – in order to support industrial production; other concepts such as "the net national welfare", social and demographic statistics and "adjusted national product" have been developed as means of operating social accountancy;
  5. A holistic paradigm, acknowledging the mind-spirit-body connection, which ensures the health and welfare of everyone; one emphasizes inter-connectivity and integrity, inner-wisdom and inner authority; basically, the fourth "wave's" distinctive vision is given by the motto: "we're one and the same and we choose to co-create".

On the other hand, connected or not to the global crisis which has been manifesting since 2007 until present, we observe that in today's society and in some periods of "chaos", generated by the overlaying of waves which randomly and suddenly create powerful shocks upon the members of the society; these shocks are more frequent nowadays, now more than ever, as a result of globalization which generated giant fluxes, both commercial and informational. (Kotler, Caslione, 2009)

Therefore, we are forced to formulate again certain questions: Why do the effects of the fourth "wave" of progress are to be found only in certain countries? Can we talk about a tendency for monopoly of certain global centers of decision? What would be the duration of the fourth "wave" manifestation? Which are the main factors which would "push" an economy to the fourth "wave"? Is there an unique model for a such "translation" or is it just the combination of distinct factors?

It is particularly difficult to formulate precise, clear answers to questions like the one mentioned above, yet taking into consideration the opinions of certain famous analysts (Kotler, Caslione, Maynard and Mehrtens, Toffler, Drucker, etc.) we can suggest certain characteristics which are closely associated with the fourth wave economies:

1. Extension of disruptive innovations and technologies (Bower, Christensen, 1995), in all sectors, both from the second and third "wave"; once certain innovations occur,

- they are more and more rapidly distributed, since the life cycle of the new products/technologies tend to permanently reduce;
2. The omnipresence of communication (*Ubiquitous communication*); wireless communication networks as well as computer networks tend to suddenly connect people, families, but also components as well as financial markets, organizations etc.
  3. Extension of virtualization and the unification of informational resources networks; the characteristic invoked indicated the fact that sometimes we can no longer distinguish between the virtual reality and the actual reality thanks to the impact that information networks and on-line communication have upon the individual;
  4. The omnipresence of information (*Ubiquitous information*); in nowadays' global society we already dispose of, paradoxically, a too big volume of information in order to solve certain daily problems; but what we really need is information filtered in a pyramidal way, under the form of extremely synthesized information, of greatest pertinence, because otherwise, a lifetime would not be enough to read all the book written in a certain field of knowledge;
  5. Emergence of thinking models (*Systems Thinking*); in nowadays society, linear, traditional thinking, based strictly on rational models is not enough anymore to force innovation on certain fields; one needs new models of thinking based on intuitive, non-rational thinking and the emotional intelligence of individuals;
  6. emergence of organizational thinking (*Organizational Learning*); the way Peter Drucker and Peter Senge show, each organization must find a proper model of structuring learning and accumulating knowledge, a model thorough which all the efforts of all members who compose that organization – be integrated.
  7. Extension of regionalism which attempts the nation-state and the redefinition of sovereignty; the way Fukuyama shows, the state-nation loses some of its importance before the integrationist processes of affirmation of the multinational corporations' power, a reason for which the state's traditional attributes must be completely re-conceptualized;
  8. The all to rich appeal to the artificial intelligence; we're facing today the extension of using robots and super-computers within the economy and society, a tendency registered in all over-industrialized countries, the major bounce being the passing from natural intelligence to artificial intelligence as support for software programs.

## CONCLUDING REMARKS

If we take into account the lessons which history offers us when it comes to direct/indirect connections among the three “waves” of progress (the way they have been defined by Toffler), then we can seize certain connections also throughout the period of the social-economical passing to the third “wave” of progress. For example, the extremely abundant resources which were to be found towards the end of the agrarian revolution (such as cotton), have favored certain major technological innovations I the beginning of the industrial period; moreover, they have imposed an intensive use of certain production factors which were to be exploited subsequently, imposing the all too large access to human capital.

In other words, we observe that there is a connection/interdependence regarding resources, technologies or innovative processes which are the basis of “translation” from one “wave” to the other; similarly, we can predict that the period of passing from the third to the fourth “wave” (Rifkin, 1995) will be defined by contradictions and interdependencies (certain technologies or specific innovations from the fourth wave such as on-line trading, wireless

transmissions, introduction of robots impose globally and find applicability including in the countries/economies from the third or second “wave” etc). Moreover, as countries and organizations tend to exploit *knowledge as distinct resource* (we discuss about the revolution of knowledge associated with the fourth “wave”), as individuals become aware that they live in a more and more integrated world, thanks to the connected markets, computer networks, etc, *it is possible that a certain utopia manifested by Maynard and Mehrrens (1997) be confirmed* at least in part; that is, individuals share common values and consciously collaborate in order to built a common future).

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