Time Allocation in Economics and the Implications for Economic Development

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A bstract. In a modern and more complex society, in which there are not borders between the professional family and social life of individuals, time should be viewed as an economic resource and it has to be optimized, rationalized and controlled.

In this paper I will try to identify the main coordinates and the dominant points of view of economic thinking focused on time allocation, at both national and international level. The paper also presents an analysis of the correlation between time use and economic development, on the basis of some regression models.

Key words: time allocation, working time, economic development

JEL Classification: J22 - Time Allocation and Labour Supply

Introduction

Time is always an important issue for many disciplines like philosophy, literature, arts but also for science, being also a source of divergences related to the time definition, time perception or time measurement. It is difficult to give a definition[83] of time without scientific controversies. That is the reason why time should be

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[83] *In the Romanian Explicative Dictionary, time is defined as: "duration, period of time, measured in hours, days, etc. that is attributed to an action, to a phenomenon or to an event". Oxford Dictionary defines time as: "the unit of the undefined and continuu process of the events in past, present or in future".*

approached in an interdisciplinary way, there already are concepts as *astrological time*, *physical time*, *biological time*, or *individual time* and *social time*. Due to the time characteristics – scarcity and irreversibility – time could be regarded as an important economic value.

The paper is not focused on time dimension or temporality, but it will underline the social and economic implications of time allocation.

During the last decades, the time allocation aspects in economics have reoriented the research programs, moving the borderlines of the economic human behaviour. It is clear that time became an economic resource and it has to be optimized, rationalized and controlled. At this time, the individuals are in the situation that they must find new solutions in order to allocate their available time between work, family and their personal aspirations.

In this paper I will try to identify the main coordinates and the dominant points of view of economic thinking focused on time allocation, at both national and international level.

At international level, there are many researches regarding time use and time allocation, especially research on market time, and also regarding the population participation in education, culture or other activities of social life. In the last years, IATUR[84] is responsible to organize annual conferences and workshops, bringing together researchers with a large view, ranging from the differences between social models and patterns of time allocation to the time structure of working time and leisure. The researchers are also focussed on gender inequalities related to time allocation, life cycle and the measure of the economic impact of time use on social development.

At European level, within the Eurostat[85] programs, there are technical groups working on specific activities related to time use. In order to improve data quality and the methodologies for statistical surveys, Eurostat periodically publishes the main indicators produced on the basis of comparable data that are provided by the Member States[86]. The main groups of indicators are the following: employment, labour cost, duration of working time, earnings, etc. The indicators are produced in order to make comparison between the dimension and structure

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[84] IATUR – International Association for Time Use Research.

[85] Eurostat – European Union Statistical Office.

[86] *Although Romania is a member state of EU from 2007, data are yearly transmitted to Eurostat, the main data source being LFS (Labour Force Survey) of 1997.*

of the labour force, but they are also used to reveal the socio-economic phenomena of the labour market.

In Romania, there are not many published paper focussed on time use. It is important to note that during the last two decades few specialists have had a contribution in the domain of time allocation (e.g. the paper of Boghaty Zoltan – *A psychological study on working time*, published in the Korunlor Yearbook, Cluj Napoca 1983-1984 and the *Survey on student's leisure* carried out by Elisabeta Jaba in 2002). Moreover, the allocation of time was studied by researchers from the Institute for Quality of Life, with a study of Laureana Urse – *Romanian leisure time and international comparison*, published in 2002. The specialists from the Academy of Economic Studies and from the National Institute of Statistics published research studies on time allocation on the basis of data provided by Time Use Survey, carried out in 2000.

Taking into account the work on time use in Romania, the domain is still not enough researched in our country.

1. Time allocation in Economics

Time is one of the most important resources, for individuals and companies but also for the national economy. That is the reason of research time allocation from an economic perspective.

The first theory referring to time as an economic factor is based on the relation between space and time. Some economists approached the time issue in economics, being focussed on the *duration of the production process* and on the *working time.* The recent economic theory considers time not only as an accumulation of moments or a benchmark between two or more events in time, but a production factor, like labour or capital. These theories start with the premise that time is a scarce resource; therefore, a central question is the optimal allocation. Also, time spent outside work arrangements has a significant economic value, both at micro (individual, household, or firm) and macroeconomic (national economy) level.

Time, as a referential system, is also involved in the economic analysis of individual behavior at different stages of life. In this regard, "*Life Cycle Theory of Savings*" (Modigliani, 1950, 1954, 1980) is the most representative published document in which the time as a referential is considered the basic inputting element of the analysis. This theory allows for the analysis of consumption behaviour of individuals over time, taking into account the life span and the relationship between income and consumption. According to Modigliani's

hypothesis, personal income is either spent or saved and the consumption decisions or saving decisions depend on the life cycle segments and the moments that occur therein. Thus, young and elderly people have an increased propensity for spending their income while people passing mid life are more inclined towards savings, building and preserving wealth, which they intend to consume during retirement. In addition, families also tend to reduce savings and rely mostly on loans and other credit sources as to maintain the same level of consumption in time of recession. Thus, the implications of individual savings and consumption behavior may be extended to the macroeconomic level. The mechanism is as follow: each generation (meaning here a population at the same stage of life) is characterized by a specific profile of income and labor productivity, which is also specific to each generation. Therefore, it can be assumed that an increased level of the income of the population, in the saving stage of the life cycle, could generate an increase in the labor productivity that could show significant results in the accumulation of economic welfare. Concluding, the saving rate depends on the demographic structure and respectively on the life expectation of the population.

Another approach of economic time was generated by the aspects of time length of production in which economic time was taken into analysis as a system of reference. The representatives of the Austrian School of Economics, particularly Böhm-Bawerk, have analyzed the dimension of production periods, as a determinant of the economic performance. Böhm-Bawerk's view is that *any economic process is conducted within a certain period of time, including the duration of organizing the economic process, considered as a sacrificing period of production*. The theory of time preference, as it is known in economic literature, starts with the premises that, within a fixed period process, the results may be different, even if the total amounte of input (labor, technology, etc.) remain the same, the differences being attributed to the method of organization and the component of the life stages of production. The Böhm-Bawerk theory was continued and completed by later economists – especially Knut Wicksell, Frank Albert Fetter and Irving Fisher.

Modern economic theories are launching a new approach regarding time targeting the following factors; the reconciliation of work and family life, the balance between work time and leisure time, which is designed to support an increasing participation in the labor market and its flexibility. The lack of free time is the main topic of discussion in terms of welfare and quality of contemporary life (Robinson and Godbey, 1997).

In some countries, the workload of 40 hours, 5 days a week is estimated to be no longer a correct and true statement. The opportunity cost of leisure is the sacrifice for the consumption of goods and services. It is assumed that any choice simultaneously involves a critical decision of waiving either time or remuneration. As normal working hours are increasing for each employee, the overtime is translated into an additional non-utilization, which requires an additional motivation for the employee, leading consequently to a higher marginal wage schedule. This is why the labour amount curve is ascending, and then decrease, even in conditions of a higher wage level.

The substitution effect is the situation by which the employee sacrifices his free time for the growth of his real wage. The income effect is recorded when the employee, satisfied with the wage received will increasingly opt for more time off.

In most developed countries, the amount of time used for economic activities is less than one third of the total time available (24 hours a day). International statistics on employment show that working time was reduced in almost all developed countries. Thus, if in the past century, the average annual working time per employee was around 2500 hours, today it is approximately 1,000 hours less. In these circumstances, it would be expected that time spent outside work arrangements is more abundant and used more for rest or recreational activities.

However, leisure is now managed with more care than a century ago. Several other studies examine trends of time spent outside work arrangements, especially for household activities (Roberts, Rupert, 1995 and Bianchi, 2000); attention is focused on disparities in the allocation of time between women and men. These studies show that in general, women spend more time on household work, men dedicating more time to economic activities, but in recent years there is a tendency of decreasing the gap.

Economic literature on time allocation distinguishes different categories of use, considered to be fundamentally different. Typically, the economic researches in this area are based on time on the economic divide, with reference to *working time* and non-*economic time* related activities outside work arrangements. However, besides considerations related to measurement times of certain groups of human activities, there are other numerous boundaries of time available. One of the classifications established internationally is the time used for daily work. According to this classification, the daily time is structured in three main categories of activities*: time for personal care activities, time for economic activities, education and care of household, and ultimately leisure time.*

The first economic theory focussed on time allocation was initiated by Gary Stanley Becker. The theory is based on the premise that people should decide "how long" to devote their activities on the labour market and "how" to combine the remaining time with goods they can buy on the market to maximize the level of welfare. Becker considers households the "producers" and "consumers", which maximize "profits" by maximizing the utility of time spent on different types of *activities, under a limited time budget.*

Since time is considered a rare commodity, everyone should be aware of its optimal repartition among its different uses.

Regarding the nature of these uses, which are the acts sought to be time consuming, whether they are activities of production or consumption. Becker assumes that what induces the utility is not just buying a good, but the complex of good bought-used for consumption. The consumer becomes an "economic agent", which combines various "inputs" of goods (goods purchased) and "inputs" of time in order to obtain a commodity to which it may be assigned an utility index. The "input" of time has a price, which is its opportunity cost measured by income that would be obtained if the time for the act of consumption was allocated to the labour (income generating activities).

The consumer is thus considered a producer, who, rather than maximizing his profits, he will maximize his utility function.

If to the amount of final good is given the notation of Z_i and to final goods which can be obtained in the household, "m", the utility function will be written as follows:

U (Z_1, Z_i …Zm)

Final good, Z_i, may be defined through the following function of production:

Z_i = f_i (x_i, T_i),

where: x_i is the vector of goods being bought, and (T_i) is the vector of all time inputs used in the quantitative production (Z_{i}) of a final good ("i".)

Becker observes that in the event the goods purchased are durable goods, items x of the vector xi, which are related to their consumption, correspond to an evaluation of the quantity of services provided during the period considered.

The consumer chooses the optimal vector of final goods by maximizing its utility function:

U (Z_1 …Z_m) = U(x_1 …x_m; T_1... T_m)

Under budget restriction: $g(Z_1, \dots Z_m) = Z$,

where: "g "is the spending function of "Z_i", and "Z" is the resource limitation.

The objective of the analysis is to find the values of "g" and "Z".

Under the form of time used in activities of consumption rather than in work. The model allows the analysis of possible substitution of time used for specific activities, and time allocation decisions are determined by their opportunity cost.

2. Measuring time allocation – the main indicators of working time

The importance of working time at international level is reflected in the Constitution of the International Labour Office (ILO), which recommends regulating the daily and weekly working time, as a necessity to ensure the working conditions of employees. Currently, there are over 30 agreements dealing with issues concerning working time, such as: regulating and reducing the maximum daily and weekly work, work rules overnight, weekly rest, annual leave and maternity leave, working time measurement.

At the European level, the issue of working time is addressed and regulated by the Directive on working time (The Working Time Directive), which entered into force in 1993, as a measure to ensure the health and safety aspects. The European Council Directive contributes to the social dimension of the labour market and recommends measures concerning:

- the limitation of medium working for the period of 7 days a week (considered period of reference);

- the limitation of time during the night;

- the health conditions evaluation of employees who are working in night shift;

- the time for rest (daily , weekly, monthly, annually).

This directive does not apply to self-employed workers, family workers and persons engaged in religious activities. Also, the scope of this directive does not include employees working in the transportation industry, who are included in a separate directive of the European Council.

EU rules related to the limitation of working week to 48 hours per week and working day to 11 hours per day originates from the health care concern of workers and minimum safety rule in the work place. Directive 93/104/EC of

November 23, 1993, as amended by Directive 00/34/EC of June 22, 2000, which continues to shape the outline proposals in November after adjusting for a legislative spiral upward. Finland, for example, proposed that an average of 48 hours/week be calculated starting from a reference base of 12 months, not 6 months as it is currently, and the weekly average to be calculated over a period of 3 months, not to exceed 60 hours, in all Member States, including the United Kingdom. Why does it need to make an express reference to the UK? In 1996, the country has managed to obtain an exemption from the Working Time Directive, leaving duration of working week to the free negotiation between employee and employer. At the extreme opposite of the Great Britain example is France and the self-imposed by law reflecting a maximum of 35 hours per week.

In Romania, the Labour Code is the labour law framework that expresses general principles governing labour relations, rights and obligations of persons in employment and labour jurisdiction. The new legislation of labour explicitly or implicitly amends the provisions of this Code adopted in 1972, broadening the scope of application to all sectors of public and private sector and allows adaptation to the new mode of organization and functioning of the Romanian society and the national economy. Labour legislation in Romania has transposed all the provisions of the community "acquis" in the field of labour, currently being harmonized with the European legislation. Labour Code defines working time as representing "*any period during which the employee performs work is available to the employer and its tasks and powers as provided for individual employment contract, collective labour agreement applicable and/or existing legislation.*" Working time has a dual character as it must meet the needs of employers, and those of employees, the latter being related to health and to ensure the balance between effort and rest. Therefore, regulations on working time must be understood and closely linked to the regulations related to vacation / time off.

✓ *The normal duration of working time*

The normal duration of working time is determined by the Labour Code to 8 hours per day or 40 hours per week. When work is performed in shifts, working time may be extended beyond 8 hours per day and 48 hours per week. Provided that the average working hours for a maximum period of 3 months should not exceed 48 hours per week.

Under the Labour Code, normal working time refers to working time fixed by or under the laws or regulations, collective agreements or arbitration. The normal duration of working time is performed usually within 5 days work week, and Saturday and Sunday are days off. This is the rule and exceptions may be made

according to the specific activity of the employer, as forms of organization of working time. For some sectors a normal duration of working time can be more or less than 8 hours per day or 40 hours/week by collective or individual bargaining, or by legislative acts.

✓ *The time effectively worked*

The second concept, the time actually worked, the number of hours worked during a given reference period. The concept includes time spent at work with productive activities and other activities not directly productive but which are part of the duties and obligations at work.

The coverage of the actual time worked includes:

- Time actually worked during normal working hours;

- Extra time worked besides the time worked during normal working hours, generally paid at a higher level;

- Time spent at work preparing for work: cleaning, repair and maintenance of equipment, preparation of reports and records;

- Time spent at work or downtime waiting for reasons such as lack of job offers, stopped machines, accidents, or time spent at work during which no work is performed but is paid under contract of employment;

- Time corresponding to short rest periods at work, including breaks for tea and coffee.

This excludes:

- Meal breaks;

- Paid time not worked such as annual leave, sickness, holidays;

- Travel time to and from work;

- Since there are differences in paid leave and other periods of inactivity, the conference did not adopt an international definition of "paid time". Where some people have two or more jobs, the time actually worked is obtained cumulating time worked at all jobs.

✓ *Working time*

It covers all periods during the reporting period concerning work-related activities. It is equal to the time actually worked plus time spent to and from work.

✓ *Productive time*

Not all periods (availability of) work is spent on activities that produce goods and services. Part of this time is spent with activities that cannot be considered productive. Workers employed in services may spend periods of time at work waiting for customers in the waiting area of production materials and most workers can have periods when it is impossible to work through technical or mechanical disruptions (e.g., current interruption, stopping cars) or other reasons.

Productive time is relevant for calculating average hourly cost of labour, which reflects the total cost incurred by the employer on labour time actually worked.

✓ *Paid time*

It is a concept that refers to the time for which workers are paid whether they worked or not during that time.

Paid time includes the time actually worked and excludes paid time actually worked (for example, unpaid overtime). During the absence and rest it is paid at least partially (e.g. meal breaks, sick leave or study, etc.

The types of overtime, rest periods or absence are paid depending on the national legislation, collective agreements and practices and specific units for groups of workers or businesses (for example, some units paid for meals, while others do not). As a result, estimates of when payments are not generally comparable between units and countries, being unable to reach an international definition of time paid.

✓ *Overtime work*

Is the time worked over the normal schedule is called overtime. Employees may request or may be asked during a reference period one day or a week to work in addition to the normal time (which is stipulated in the employment contract). Employees may be interested in additional work to obtain a larger income, and employers are interested in more intensive use of labour available.

Governments may seek a reduction in extra time to improve the working conditions of employees (in cases where extra time is a permanent position) or reduce the level of unemployment.

3. The working time outside working arrangements

Labour Code calls the time outside working arrangements resting period, representing "any period which is not a working time." There are several forms of

rest periods, such as during breaks in the work programs, time periods between two days of consecutive work days off to weekends, holidays.

Considering the total time available, we must identify leisure time as a period of time outside work arrangements, which has the following functions:

- Rest (relaxation);
- Recreation and personality development through cultural and educational activities;
- Socialization;
- Entertainment, etc.

Therefore, the leisure time is constituted beyond professional, familial or social obligations. The ratio of working time to leisure time differs from one society to another, depending, in general, on the degree of socio-economic development of the company.
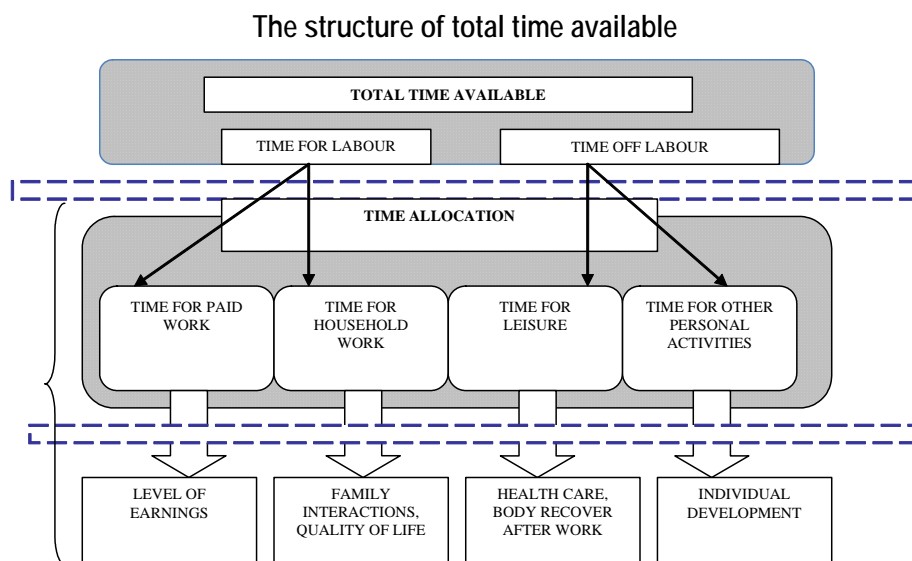
The individual time outside of work includes, in general, personal care activities, to restore the body after work, but is used for socialization, personality development, volunteering, etc. Many times, this segment is associated with leisure time, although very often, incorporating a number of economic activities. The most relevant example in this regard is the work in the household, for which the individual spends a large part of his time available (activities related to food supply and preparation of meals, home maintenance, childcare, etc.). Time off from work is an important resource of wealth; therefore, it should not be viewed as an opposing element to fundamental values, or as a time when nothing is done. Furthermore, in terms of employment policies, there is an increasing concern for flexible forms of employment and employment programs, to achieve a balance between paid work and during leisure time. So free time is a separate part of the budget for a part time paid work remained outside any form of employment on the labour market. This is because leisure implies the existence of a sequence of time available to the individual, family, social group or society, not only complementary sequence of working time, but other time intervals required. There are implications and mutual conditioning between size and use of leisure, on the one hand, and global economic development, on the other hand.

Work and life outside work are not always in opposition, there is no clear distinction between the two components of time use. Reducing working hours will not necessarily improve the quality of individuals' life.

One of the fundamental guidelines in measuring time use is, as a starting point, to identify the core activities carried out through sections of time.

Figure 1 illustrates the main elements making up the total time available to the individual within 24 hours.

Figure 1

The structure of total time available

Source: By author, on the basis of Time Use Survey Methodology.

4. Working time and time use

Why the world is considerably richer than it was in the last century? Why certain countries are developing faster than others? Why still is a large scale of welfare divergence across the world? These were some questions regarding the new growth theory to be answered at the beginning of the second half of the last century. At present, the economic research is looking to answer to another question: *could the pattern of time allocation be a source of the progress and wealth?*

At the national economy level, the effects of time use on the socio-economic development could be measured as **working time**, using at least two statistical indicators: for the quantitative dimension of time – labour force - and for the

qualitative dimension - hourly productivity. In the following section there are presented certain regression models in order to verify the correlation between economic growth and time use.

Data used in the regression models are presented in the Appendix 1. Data refer to variables registered in European Union Member States in the year 2007.

M1

$$Y = a_0 + a_1 R_o + a_2 T + a_3 W_h + a_4 E$$

where:

Y – GDP/capita;

R_o - Employment rate;

T - Average of yearly hours per worker;

W_h - Hourly productivity;

E - % of population with secondary level of education;

a_j - Regression coefficients.

Table 1

Summary output of regression statistics (M1)

Output (Y)	GDP/capita (euro)				
X variables		Ro (%)	T (hours)	Wh	E (%)
Coefficients (a_j)	Intercept -33040,5	262,9422	5,424873	1179,256	-6,9025
Probability (P-value)			*>0,05*	*<0,05*	
Observations: n=27 Multiple R = 0,877 R square: $R^2 = 0,769$					

The results show that GDP/capita could increase by an average of 5.4248 euros if the working time is one hour higher, but the statistical significance is very low. In these circumstances I will try to explain that result is produced by the very high influence of the hourly productivity on the output. The model presented below eliminates that influence.

M2

$$\log Y = a_0 + a_1 R_o + a_2 T + a_3 \log W_h + a_4 E$$

where:

   Y – GDP/capita;

   R_o – Employment rate;

   T – Average of yearly hours per worker;

   W_h – Hourly productivity;

   E – % of population with secondary level of education;

   a_j – Regression coefficients.

The results are presented in the Table 2, where the figures reflect the low correlation between variables. I point out that the welfare is directly dependent of the education level of the labour force.

Table 2

Summary output of regression statistics (M2)

Output (Y)	log (GDP/capita)				
X variables		Ro (%)	T (hours)	log Wh	E (%)
Coefficients (a_j)	Intercept 1,508821789	0,012334232	0,0000484277	1,488248699	-0,002071293
Probability (P-value)		*<0,05*	*>0,05*	*<0,05*	*<0,05*
Observations: n=27 Multiple R = 0,934 $R^2 = 0,873$					

The influence of the working time on the dependent variable is limited if the productivity is eliminated from the model.

M3

$$\log Y = a_0 + a_1 R_o + a_2 T + a_3 E$$

where:

   Y – GDP/capita;

R_o - Employment rate;

T - Average of yearly hours per worker;

E - % of population with secondary level of education;

a_j - Regression coefficients.

Table 3

Summary output of regression statistics (M3)

Output (Y)	log (GDP/capita)			
X variables		Ro (%)	T (hours)	E (%)
Coefficients (a_j)	Intercept 1,244037	0,000462	-0,00012	0,012096
Probability (P-value)			>0,05	<0,05
Observations: n=27 Multiple R = 0,958 $R^2 = 0,918$				

The results of the third model reflect an inverse correlation between the dependent variable (Y) and working time (T). In other words, in the national economy the increasing of working time doesn't lead to the welfare. The attention has to be focussed on the growth of labour productivity, as a factor of progress and economic growth.

The results are not singular in Romania. At the level of European Union there are very rich countries even though the average of the total working time is lower than the average of the EU indicator. The fourth model comes to confirm that affirmation.

M4

$$Y = a_0 + a_1 T$$

where:

Y – GDP/capita;

T - Average of yearly hours per worker;

a_j - Regression coefficients.

Table 4

Summary output of regression statistics (M4)

Output (Y)	GDP/capita	
X variables		T (hours)
Coefficients (a_j)	Intercept a_0 = 6,340864	a_1 = - 0,00125
Probability (P-value)		*<0,05*
Observations: n=27 R = 0,685		

The results of model 4 illustrate the inverse correlation between variables (a_1 = - 0.00125, R = 0.685).

Conclusions and recommendations

There is a general pattern of time allocation across nations, but each society has a peculiarity provided by own culture, traditions, level of education. Moreover, the time allocation patterns are very dynamic, being in continuing transformation between socio-economic stages of the country or during the life cycle of individuals.

On the basis of the previous statistical regression, some conclusions could be formulated as follow:

The economic welfare of a country, measured by GDP/capita depends on the working time in at least two ways:

- under a quantitative way, there is an inverse correlation between GDP/capita and working hours; and

- under a qualitative way, there is a direct correlation between GDP/capita and hour productivity.

The increasing time allotted for work could be a source of economic growth, only if there is an increasing of productivity. The result emphasis that rich countries could decrease the average of working hours – reducing the duration of working week (e.g. France[87]), or decreasing the employment[88].

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[87] ILO, *Working Time Around the World.*

[88] The trend of labour force in EU is decreasing.

Economic development depends of the population's education level, not secondary, but tertiary level of education. In other words, the share of more educated people and a more qualified labour force could increase the welfare of a society, based on creativity, innovation, and labour flexibility.

As a recommendation, the mathematic models are not always good to forecast the macroeconomic indicators, because the complexity of social and economic phenomena and also the intervention of unexpected and unmeasured factors. These factors could increase the uncertainty of the outputs of the proposed models.

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Variables for the correlation between time use and economic development member states of European Union, 2007

	Country	Employment rate (%)	Working time (hours/year)	Labour productivity (GDP per hour worked-constant 2000 US$ at PPP)	Share of employment with secondary education (%)	GDP per capita (constant 1990 US$ at 2000)
1	Austria	55.1	1654.5	31.75	64.1	25346
2	Belgium	47.5	1571	34.01	36	23796
3	Bulgaria	41.2	2011.2	9.65	55.9	2071
4	Cyprus	58.5	2079	18.72	39.6	21300
5	Czech Republic	55.2	1996.8	12.03	79.1	6628
6	Denmark	61	1577.4	30.26	50.4	31612
7	Estonia	53.5	1789	21.5	55.5	5862
8	Finland	56.3	1720.5	29.29	45.6	25713
9	France	49.2	1564.4	35.18	44.3	23494
10	Germany	51.6	1435.9	29.49	58.3	23906
11	Greece	49.5	2053	18.98	41.6	12799
12	Hungary	45.7	1989.2	11.94	64.5	5720
13	Ireland	60.2	1640	34.14	28.5	29991
14	Italy	45.6	1800.4	29.28	44	19329
15	Latvia	51	2034	15.07	63.2	5029
16	Lithuania	52.5	1920	13.41	61.5	4846
17	Luxembourg	51.5	1604	34.73	46.5	52183
18	Malta	48.2	1977.6	17.94	8.8	9618
19	Netherland	60.9	1391	32.96	43.2	24696
20	Poland	46.2	1985	11.92	69.4	5203
21	Portugal	58.2	1758	16.57	14.5	11023
22	Romania	51.5	1968	5.18	61.6	2259
23	Slovakia	51.7	1749	16.13	76.6	4762
24	Slovenia	56.5	2040	20.27	62.7	11432
25	Spain	51.2	1763.7	21.69	23	15623
26	Sweden	59.3	1582.6	30.82	55.1	29954
27	United Kingdom	59.1	1668.7	30.43	47.7	25346