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“Old wines in new bottles? From State Regulation to Flexible Working Time Arrangements in Greece”

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1. Introduction

During the last decades the debate on working time regulation focused on how to achieve greater flexibility at workplace in a way that enhances company adaptability to the volatility of the product markets cycle. For many analysts this change in considering working time mainly as a tool for organizational flexibility was provoked by the multiple restructuring exercises, as well as the increasing interest of employers in controlling working hours that resulted, in turn, in numerous respective collective agreements and alternative working time arrangements at the company level. In many cases, these initiatives were followed by a considerable stagnation in collective working time reductions and were often associated with a support by the State in the sense that greater flexibility in working time schedules is a prerequisite for balancing working and family life and an instrument for economic success.

In broad terms no serious changes have taken place in the volume of hours people work in Europe in the 1990s and forward. On the other side, unsocial hours of work have not increased to a great extent and the State still remains the basic architect of national working time regime. Nevertheless employer prerogative on working time determination has increased in many terms and it is more often nowadays to watch trade unions conceding in employers' demands for extending working week and shopping hours. T

Considering this situation, it is easy to get confused, as one the one hand no serious changes in national working time regimes are suggested and on the other hand it is argued that employers are more able nowadays to establish their terms and conditions in the bargaining agenda. Our starting point of analysis is that there are national paths and traits of working time changes in Europe. However, we suggest that behind the national variations and distinctiveness of each national case working time changes in Europe are definitely determined by employers' strategies and their ad hoc needs. In other words, what determines the length and the organization of working hours has basically to do with current and update organizational needs rather than the regulatory framework and the possible militant reaction of trade unions in a proposed change. This provocative argument is tested taking as an example the case of the Greek labour market.

The rest of the paper is structured as follows: section 2 discusses the working time trends in Greece; section 3 sets out the methodological framework; section 4 presents the results; finally, section 5 concludes the paper.

2. Working Time Trends in Greece

Greece remains a really distinctive case regarding the trends of working time and the allocation of working hours across the workforce. At legislative level Greece is characterized by a remarkable stagnation on collective working time reductions. This stagnation is reinforced by the absence of specific collective agreements and negotiations. The final outcome of these forces (lack of legislative initiatives and collective agreements on working time) creates the space for a national working time regime characterized by a strong concentration of employees on the rule of five-day 40 hours working week and to a well established culture of long hours and extended shift patterns¹.

In practical terms this means that Greece has stopped to follow the international developments on working time by the early 1980s. The only similarity that can be found between Greece and the rest of the member countries that constitute the entity of European Union (EU) and specifically the EU-15 area could be embraced on the attempts of consecutive successive governments since 1990s to incorporate greater flexibility in the organization of working time schedules.

Furthermore, this flexibility was never coincided with relevant efforts to reduce working hours as in the case of continental and north European countries where a model of consensual bargaining has evolved over the years in order to bridge the gap between unions and employers interests over the issue of working time (Zagelmeyer 2000, Natti 1999). On the other hand, the way working time flexibility is sought and achieved by employers remains extremely traditional in the sense of extending working schedules by the widespread use of overtime shift pattern (Kretsos, 2004a). Agreements and regulations like that of VW in Germany or the 35 hours working week in France or the 6 plus 6 shift scheme in Finland were either never found to a considerable extent or not even used at all to Greece².

Instead of that it is heavily evident by the results of national labour force surveys a marked stability in the usual hours of work. This stability is associated though with a strong desire by the state to promote labour market flexibility by lowering the demands for employer's compliance to 40 hours – five days working week. Table 1 includes the

¹ The last generalized collective reduction in working time took place in 1983 and was fully implemented for the total of economy in 1984. According to the National General Collective Agreement of 1983 the conventional weekly working hours was determined in 40 hours for employees in the private sector. Minor changes took place since then restricted mainly to certain exemptions to the rule like the working hours of public servants (37.5 hours), as well as the employees in the banking sector (38,20 hours) and other professional categories like personnel of insurance companies and the construction workers.

²The analysis of Lehndorff (1995) is very indicative on this experimentation on working time organization.

legislative initiatives by the State to deregulate working time rules in an effort to increase the margins of working time flexibility Greek companies can legally emulate.

Table 1:
Institutional changes in labour law
regarding working time since the early of 1990s

<i>Lawç:</i>	<i>Changes:</i>
1892/ 1990	<ul style="list-style-type: none"> • Regulatory framework for part-time employment • Introduction of 4th double 24 hours shift in the weekend • Flexible calculation of working hours for a three months period
2639/ 1998	<ul style="list-style-type: none"> • Introduction of part-time employment in the public sector • Flexible calculation of working hours for a three/ four and six months period
2602/ 1998	<ul style="list-style-type: none"> • Unilateral managerial prerogative to introduce annualized hours scheme in Olympic Airways SA
2874/ 2000	<ul style="list-style-type: none"> • Introduction of annualized hours schemes if annual working hours were reduced by 90 hours
3174/ 2003	<ul style="list-style-type: none"> • Introduction of part-time employment in the public social services
3250/ 2004	<ul style="list-style-type: none"> • Introduction of part-time employment in public sector and the local government
3385/ 2005	<ul style="list-style-type: none"> • Special regime for weekly working hours between 41-48 hours • Reduction of illegal overtime costs • New menu of choices for implementing annualized working hours systems
3377/ 2005	<ul style="list-style-type: none"> • Extension of shopping hours

Source: Kretsos (2006)

This development marks a considerable difference between Greece and the rest of EU-15 countries. The introduction of working time flexibility was not first negotiated between the social partners but represents a merely pure legalistic approach by the government policy makers. This top-down approach was not successive at all, as, but has definitely altered the agenda on collective bargaining and labour regulation by excluding at all the issue of working time reduction. Even the typical “exchange of gifts” between employers and trade unions in the form of wage concessions and labour flexibility for any reduction in working time was not on the agenda. Employers usually welcome the above legislation but they insist on demanding greater flexibility in the labour market and heavily reject any proposal for reducing working time limits. Instead of that they suggest a more structural and liberal orientation policy under the framework of social dialogue.

For example according to the opinion of the biggest employer body of Greece, the Confederation of Greek Industry (SEB) for the law 2874/ 2000 on the organization and the duration of working hours:

- Overtime limitations and premiums are extremely high burdening in an excessive way Greek manufacturing.
- The period of working time defined in an annual basis correspond just to 138 hours per annum. This amount of hours is considered as not sufficient for the real flexibility of working time industry needs.
- The implementation of an AH scheme rises dramatically the labour cost, as is implementation is associated with the reduction of the conventional working week from 40 to 38 hours (SEB, 2001).

The above example is indicative of the negative stance the Confederation has taken to the past amendments of the regulatory framework. In essence it seems that employers need greater freedom in determining the quantity of overtime hours and its corresponding premium rate. In parallel to this, they ask for greater freedom in the way annualized hours can be developed giving greater scope to individual agreements between company and employees (Kouzis, 2002).

These demands were partly satisfied with the last amendment on 2005. More specifically the respective legislation relaxed the rules and the cost for extending daily and weekly working hours as:

- The premium cost of the 41 to 48 weekly working hours was reduced by 50% (from 50% to 25%).
- The extension of weekly working time by 8 hours (from 41 to 48 hours) is not considered as an overtime period that needs to be registered and estimated to the overall overtime limits outstanding. Employers can use these hours at their own discretion and employees in practical terms can not deny providing them.
- The cost of illegal overtime hours (those overtime hours exceed the maximum limits or are not registered and approved by the labour inspection services) is reduced from 150% to 100%.
- Annualized hours schemes can be implemented at the workplace even if both parties do not come to a final agreement allowing the final decision to be taken by a special state authority.
- Extra working hours and overtime worked during the application of an annualized hour scheme can be given back to employees in the form of time-off in lieu or in the form of an extended annual leave.

In that framework the State and employers could be considered as brothers in arms in avoiding make any drastic case to working time limits since 1983. As a result the issue of working time reduction remains for more than two decades a buried idea and a neglected policy area considered by the mainstream politicians and the employers as a trap for economic development and as an obstacle to the modernization process of the Greek economy³. Furthermore, the low wages and the slow growth in the net income of most employees push trade unions to focus mainly on wage demands and to a much lesser extent on working time issues. In other terms, limited improvements in real wages have blocked the trade union demands on the issue and have transferred to unions the stressful dilemma of exchanging the gains of increased productivity to rises in wages or reduction in working hours.

Nevertheless, the effects of the respective legislative initiatives could be considered as more symbolic and to have little practical implications. For example, part-time contracts in Greece still remain at extremely low level according to the EU accounts and temporary employment is no greater than the average EU. At the same time annualized hours schemes are not really evident in the Greek labour market and employers still stick on traditional forms of achieving working time flexibility, mainly in the form of extra overtime and extended shift schemes (Kretsos 2004a). In practice, the regulatory reforms were not at all inspiring to employers and nothing really changed after their enactment.

This inconsistency between what the legislator proposes to social partners in scheduling work patterns can, to a great extent, be explained by the rather limited compliance of employers to working time legislation (Evans, Lippoldt and Marianna, 2001).

There are several indications that confirm this allegation. Namely:

- The statistical service of IKA (Social Insurance Foundation), which is by far the largest social security organization in Greece, estimates that one in five employees has no social security coverage and is totally out of the regulatory system of work (www.ika.gr).
- Relevant research by the Greek Federation of Social Policy Organisation Staff (POPOKP) estimates the level of social security contribution evasion at the

³ Several efforts by the unions to put forward the agenda on working time reduction, like that of the debate for 35 hours working week in 1997, were never successful and always not so important as the respective negotiations on wages.

equivalent of 15%-20% of the total income of most social insurance funds, and 30% in the case of the IKA.

- The empirical findings of various investigative surveys of the phenomenon of undeclared work suggest that the proportion of the economy that is 'hidden' represents around 25%-40% of the official Gross Domestic Product (Kretsos, 2004b).
- Greece has the highest per capita level of illegal immigration in Europe (Martin Baldwin-Edwards, 2002).

In accordance to these, the annual progress reports of SEPE (Corps of Labour Inspectors) constitute a more relevant resource to the issue of labour law violation in Greece. The respective reports indicate a pure inclination of many companies in certain sectors to bypass the established regulations. Furthermore, they document a dramatic increase on the requests to implement more overtime than the maximum legal limits. This evidence implies that a considerable number of companies are heavily dependent on extending daily shifts of work which in turn means two things:

- Overtime represents a permanent feature in organizing work schedules and a basic formula to cover the unexpected demands of production.
- The rule of the 40hours working week is inefficient and incompatible with the working time lengthening policies followed by many companies.

Table 2:

Overtime allowances for companies

having used the maximum overtime hours set by legislation

Year	Overtime allowances	Workforce affected	Total volume of hours	Sunday work allowances	Workforce affected
2000	7.818	312.134	5.040.521	6.863	112.086
2001	21.799	469.163	15.440.254	8.334	117.422
2002	29.616	515.744	18.866.465	9.798	139.478
2003	26.838	637.447	20.130.172	8.426	122.173
2004	22.137	369.538	18.720.874	8.272	134.514

Source: SEPE Annual Reports 2000-2004.

The above points can be further explored and testified if we take into account the reality indicated by the descriptive statistics on working time in Greece. The most reliable source for this is the evidence drawn by the National Labour Force Surveys. According to this the developments in working time can be divided in two periods since the introduction of the 40hours working week in 1983:

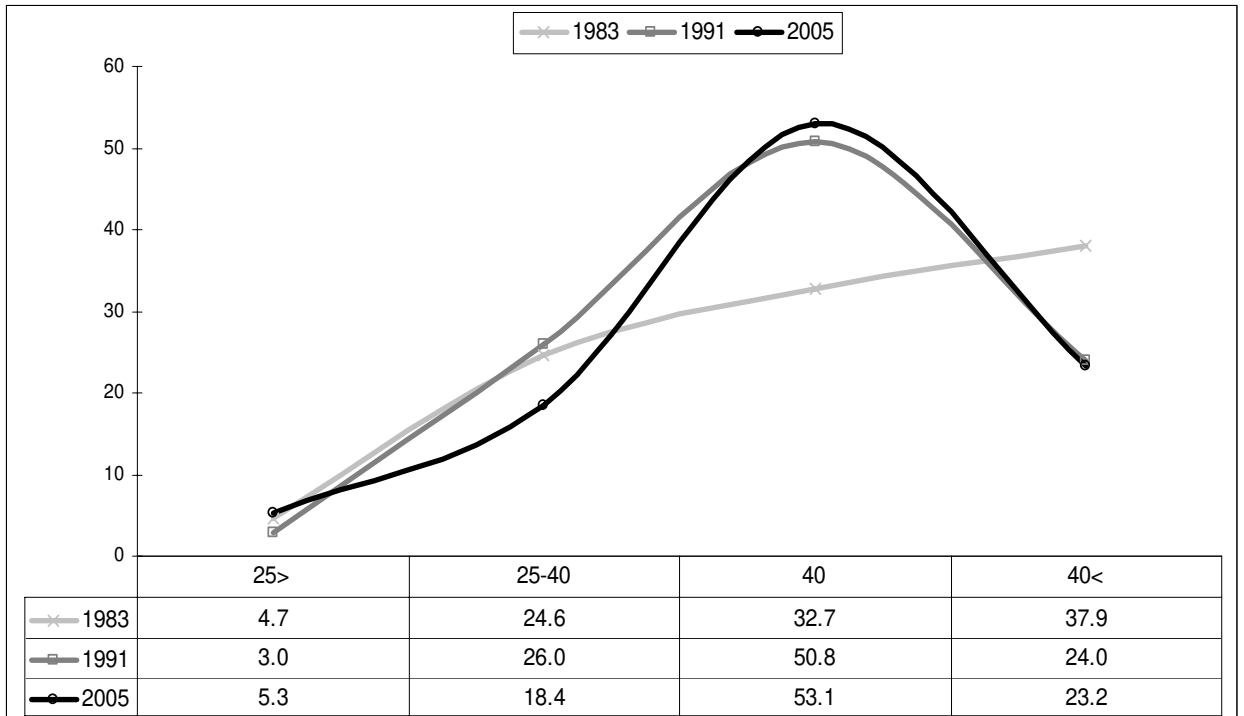
1. From 1983 to early 1990s usual hours of work were reduced to a considerable extent through the process of generalizing the 40hours rule.
2. Since early 1990s working time increased again and stagnated on high levels for the EU-15 accounts. As a result the threshold of 40hours is not the case for a considerable ($\approx 20\%$) part of the workforce.
3. Excessive long hours (usually work more than 48 hours per week) remain constant at the levels of approximately 7% of the workforce during the whole period under review.

Diagram 1 shows the way wage employment is allocated in the basis of usual weekly working hours between 1983-2005. As it can be clearly seen from the contents of the table the most popular working time blocks are those that include work no less than 40 hours per week. This evolution suggests that working time schedules in Greece are characterized by a high volume of working hours. Counter to this, short-time work and part-time employment are relative rare and can be detected in limited number of services, namely education, private households with home-based personnel and real estate.

Furthermore, if we try to detect relative developments on the way working hours are allocated, we realize a dynamic move to a long-hours regime and a subsequent decline of short-duration full-time employment. There are marked declines in the proportions working 25-39 and 41-48 hours per week in contrast to overtime and especially in contrast to the conventional full-time work (40 hours).

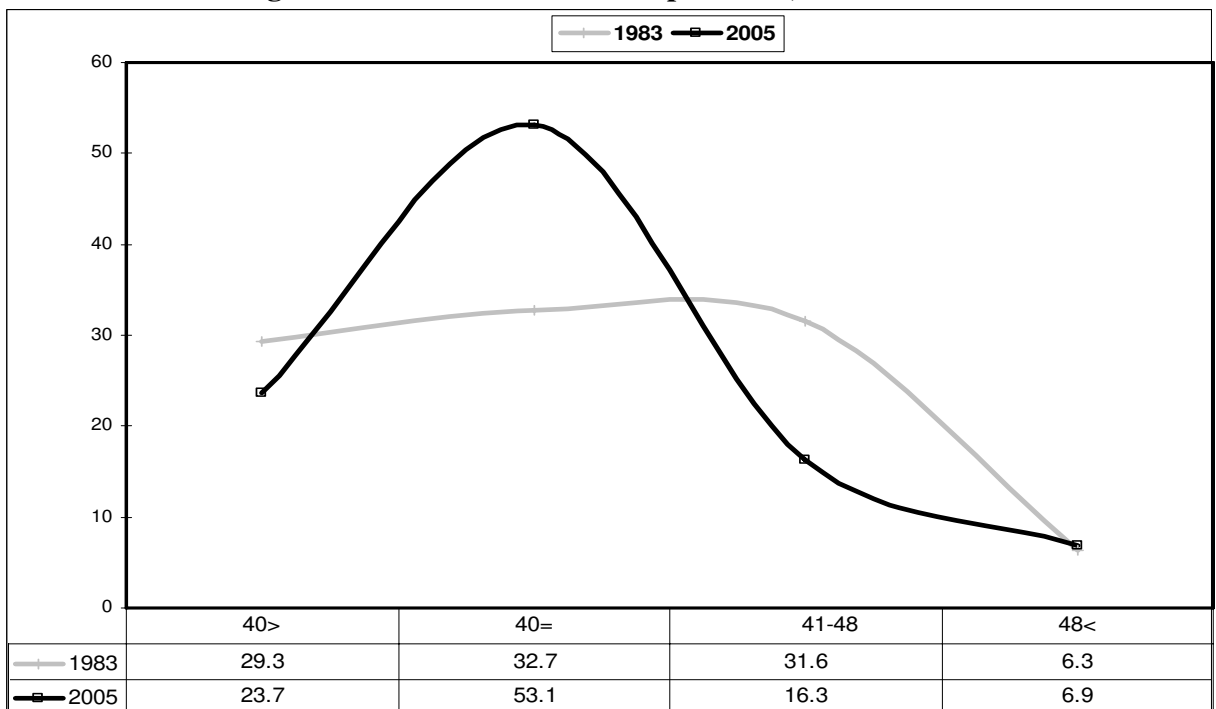
More than 50% of wage employment is concentrated on the conventional time limits of 40 hours per week, while a significant proportion (around 15%) works between 37-40 and 41-43 hours respectively. This practically means that more or less 65% of wage earners in Greece are employed on a usual basis at the level of the conventional working week limits. As such great homogeneity appears in the way working hours are distributed and scheduled across the workforce.

**Diagram 1:
Allocation of wage employment
in regards to usual hours of work per week, 1983-2005**



Source: National Labour Force Surveys

**Diagram 2:
Allocation of wage employment
in regards to usual hours of work per week, 1983-2005**



Source: National Labour Force Surveys

In other words, the establishment of 40 hours working week in 1983 seems to have acted as a catalyst for the dispersion of the conventional full-time employment, as the proportion of those worked 40 per week stood at 32.7% in 1983 in contrast to 53.1% in 2005. That means that collective regulations in the early 1980s had a considerable impact on the duration of working hours. Nevertheless, the model of allocating working hours displays no other serious differences in the period under review. This stems from the absence of important regulations in the field of working time for the last two decades. The regulations of 1983 have been slacked so far and as a result there are serious concerns of a gradual extension of timetables. Consequently new regulations are needed in order to calm down the noiseless tendencies of a long hours working in the Greek labour market.

For example, the extended timetables (more than 48 hours per week) display inelastic characteristics, as it is the only working time block in the diagram above that is not affected by the State regulations (Diagram 2). After twenty years and so, the proportion of people usually work more than 48 hours per week has marginally increased (6,3% in 1983 to 6,9% in 2002). Prolonged timetables are mainly detected in Agriculture, Transport, Storages and Communication, in Retail and Wholesale Trade and in Hotels and Restaurants. Nevertheless the most popular overtime pattern is 1 to 8 hours per week. Around 50% of overtime hours in Greece are related to a weekly work of 48 hours. After the generalized collective reduction in working hours in 1983, overtime employment emerged considerable downward trends for some years. Nevertheless, during 1990s overtime levels begun to rise again and to approach gradually the levels of 1983. Especially for the period of 1992-2005 overtime levels show a remarkable increase of 24%. Furthermore, the non-cyclical nature of overtime in Greece indicates that it acts as a permanent source of achieving flexibility that is not linked with the cyclical fluctuations in GDP.

Important, also, points can be drawn from the respective trends on unsocial hours of work and the shiftworking. The extension of such practices in international bibliography can be attributed to certain economic and technical factors. These could include for example the elimination of overtime associated costs, greater production capacity and faster depreciation of inventory stock and the facilitation of a continuous production process. Furthermore issues dealing with greater customer satisfaction like the extension of operating hours of public services, commercial stores and banking branches are also of great importance nowadays (Blyton, 1985).

However, the most important reason for the extension of shiftwork practices is the greater utilization of productive equipment and inventory (Bosch, 1999). Employers are interested in this because certain stoppages and restarts of production facilities are associated with considerable costs. Shiftwork like overtime constitute forms of extending daily schedules in order to achieve greater organizational effectiveness. As we have shown overtime represents a basic characteristic of the way human resources are managed in Greece. The highly permanent and predictable pattern of overtime implies that shiftwork practices could be more cost effective.

In that sense the legislator in Greece amplified the conditions under which these practices can be developed at the workplace. This regulation, firstly established in 1984 at textiles industry after an arbitration award, coincides with the reduction of the conventional weekly working time limits. In other words in the early 1980s the State offered the carrot and the stick to collective actors. The employers were enforced to comply to a shorter working week (from 48 to 40 hours) and employees respectively were obliged to accept the development of shiftwork practices.

However, since 1983 no serious attempt to change the institutional rules that govern working time is recorded and the State remains the basic architect of working time structures, as collective bargaining on the issue is still extremely weak. This situation results in a condition where shiftwork practices and unsocial hours of work indicate slight increase over the years and to some cases like that of Saturday work Greece exceeds by far the European average levels. The following tables are extremely supportive to this argument.

Table 3:
Shift working trends in Greece, 1992-2005

	Sometimes	Usually	Total
1992	3	7	10
1993	3	8	11
1994	3	7	10
1995	3	8	10
1996	3	9	12
1997	4	8	11
1998	3	8	12
1999	7	13	20
2000	6	13	20
2001	6	13	19
2002	5	13	19
2003	6	14	20
2004	5	14	19
2005	5	13	19

Source: National Labour Force Surveys

Table 4:
Evening work trends in Greece, 1992-2005

	Sometimes	Usually	Total
1992	23	17	40
1993	26	16	42
1994	27	15	42
1995	29	14	44
1996	32	14	47
1997	31	14	46
1998	32	15	47
1999	33	15	47
2000	33	13	46
2001	33	14	47
2002	31	14	45
2003	33	15	48
2004	32	13	45
2005	31	15	46

Source: National Labour Force Surveys

Table 5:
Nightwork trends in Greece, 1992-2005

	Sometimes	Usually	Total
1992	10	6	16
1993	11	6	17
1994	12	5	16
1995	12	4	16
1996	13	4	17
1997	13	4	17
1998	12	4	17
1999	12	5	17
2000	13	4	17
2001	12	5	17
2002	12	4	16
2003	13	4	17
2004	13	5	18
2005	13	4	17

Source: National Labour Force Surveys

Table 6:
Saturday work trends in Greece, 1992-2005

	Sometimes	Usually	Total
1992	19	22	41
1993	19	23	42
1994	20	21	41
1995	21	21	42
1996	23	22	44
1997	22	22	44
1998	22	24	46
1999	22	25	47
2000	23	24	47
2001	23	25	48
2002	22	25	47
2003	24	24	48
2004	24	23	47
2005	23	25	48

Source: National Labour Force Surveys

Table 7:
Sunday work trends in Greece, 1992-2005

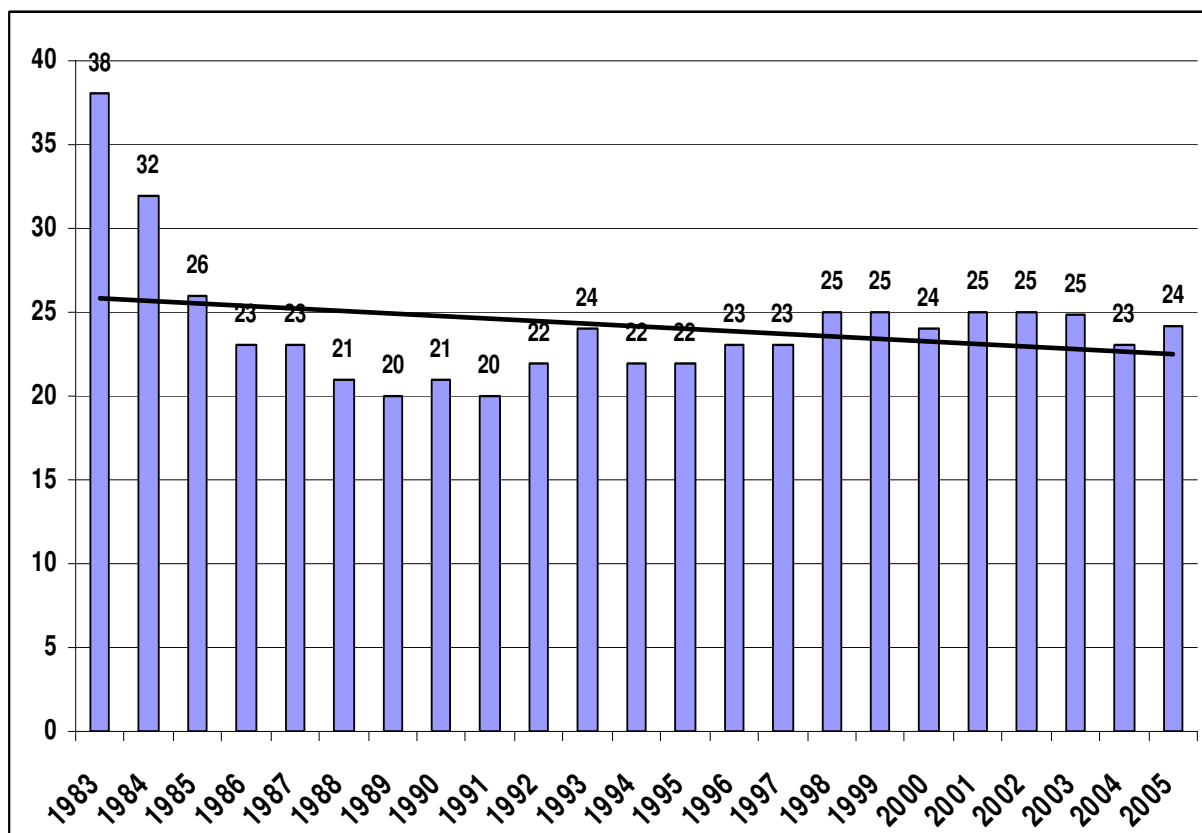
	Sometimes	Usually	Total
1992	14	8	22
1993	15	8	23
1994	15	7	23
1995	16	7	23
1996	17	7	24
1997	17	7	23
1998	17	7	24
1999	16	8	24
2000	17	7	24
2001	16	7	24
2002	16	8	24
2003	17	7	24
2004	18	7	25
2005	17	7	24

Source: National Labour Force Surveys

To some extent the respective trends are fed by the gradual increase of working days per week since 1989. The following diagram reveals the percentage of employees that usually work more than five days per week.

Diagram 3:

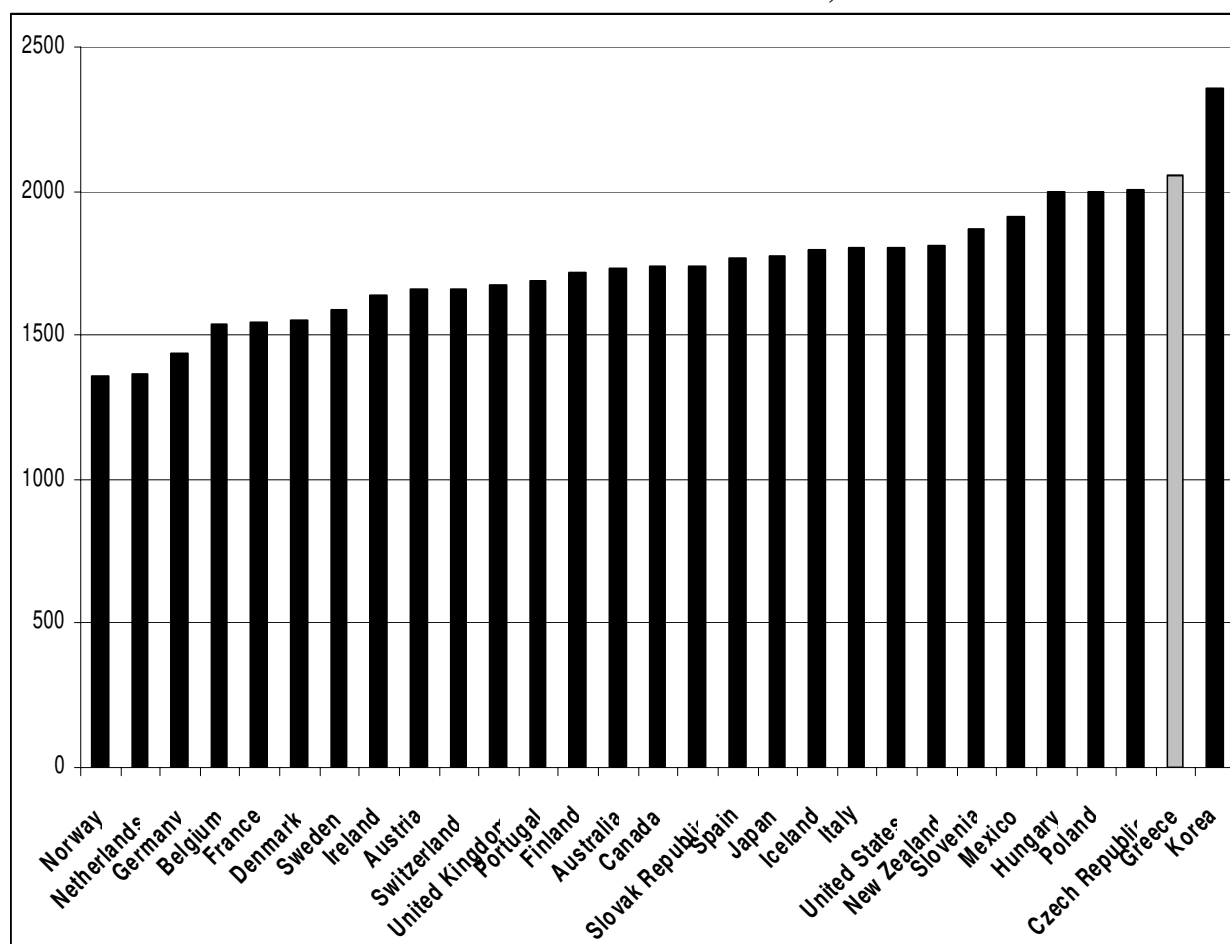
Employees who usually work more than 5 days per week, 1992-2005



Source: National Labour Force Surveys

The above developments (Diagram 3) in working time in Greece are also highlighted in several reports of international organizations like that of OECD and European Commission. For example, the following diagram (Diagram 4) from OECD Factbook 2007 reveals that Greece has one of the highest records in the world regarding the hours of work for the total of employment. More specifically the table is based on the total numbers of hours worked over the year divided by the average numbers of people in employment. Similarly, other resources like the EIRO annual review on working time developments and the Eurostat periodical publications on labour market trends indicate that Greeks can now be considered as the working hours - losers across EU-15 with only countries from the Eastern Europe to show comparable figures.

Table 9:
Annual hours of work in the OECD countries, 2005



Source: OECD Employment Outlook 2006 and OECD Factbook 2007

3. Methodology

The present paper is based on the initial results of an on-going project regarding the influential factors affecting working time and their impact on employment and productivity in Greece. So far we have discussed the main trends and drivers of working hours in Greece since 1983. The basic argument we made was that the obvious stagnation of collective working time reductions is the outcome of employer's hostile strategies to reduce working hours and the partly supportive to this strategy orientation of public policy. We, in turn, support this argument by examining the economic basis that lies behind the debate of working hours in Greece over the last decades. Moreover, we test the hypothesis that the stagnation in working hours in Greece can not be explained by the respective trends on a series of important and relevant macroeconomic indicators like productivity and GDP growth.

The respective trends of these macroeconomic indicators instead provide the basis for considerable reductions in working hours. However, the most recent serious collective and generalized working time reduction took place in 1983. As such and after the emulation of descriptive statistics drawn by the National Labour Force Surveys we follow next an index-de-composition analysis (IDA) at sectoral and national level, the details of which are described below. It should be noted that the basic advantage of an IDA is that it explains the percentage change of an indicator in accordance with the respective changes of other influential indicators.

(a) Total Economy

In that part of the research we investigate the change in hours per employee in relation to the respective changes in the total output, productivity and other demographic and labour market indicators. The inclusion of working hours in the model is applied through the productivity indicator and the indicator of hours of work per employee (see equation 1). However, the study of the long-term behaviour of working time indicators provides information regarding the effects of the respective changes of several economic, demographic and other variables.

Finally, and in order to isolate the changes happened in employment and in the hours of work of wage employees we take up an additional variation of the model. Besides wage employment should be the main focus of analysis as only those employees will be affected by the public policy and the possible regulatory reforms in the future.

Indices Methodology: Total Economy

The analysis refers to the total economy over the time period 1993-2006. The basic relationship used is:

$$\frac{GDP}{P} = \frac{GDP}{H} \frac{H}{L} \frac{L}{LF} \frac{LF}{E} \frac{E}{P} \tag{1}$$

$\left(\begin{matrix} \text{GDP} \\ \text{per} \\ \text{capita} \end{matrix} \right) \left(\begin{matrix} \text{productivity} \\ \text{of} \\ \text{labour} \end{matrix} \right) \left(\begin{matrix} \text{working hours} \\ \text{per} \\ \text{employee} \end{matrix} \right) \left(\begin{matrix} \text{employment} \\ \text{rate} \end{matrix} \right) \left(\begin{matrix} \text{contribution} \\ \text{rate} \end{matrix} \right) \left(\text{age structure} \right)$

The working time is introduced in the model through the productivity index (production / hours) and through the index of hours per employee (average employment per hour). Equation (2) that follows provides us with useful information about the (approximate) impact on the GDP (per capita) of a change in economic, demographic and other relative factors.

In essence we use the following relationship:

$$\Delta \ln \frac{GDP}{P} = \Delta \ln \frac{GDP}{H} + \Delta \ln \frac{H}{L} + \Delta \ln \frac{L}{LF} + \Delta \ln \frac{LF}{E} + \Delta \ln \frac{E}{P} \quad (2)$$

Through equation (2) we may calculate $\Delta \ln \frac{H}{L}$.

Finally, we make a simple transformation to the model so that the changes in employment and working hours of the wage earners are made clear. So:

$$\frac{H}{L} = \frac{H}{H_{\mu}} \frac{H_{\mu}}{L_{\mu}} \frac{L_{\mu}}{L} \quad (3)$$

Where:

H_{μ} the working time of the wage earners

L_{μ} the number of wage earners

Consequently, *the model* takes the following final form:

$$\frac{GDP}{P} = \frac{GDP}{H} \frac{H}{H_{\mu}} \frac{H_{\mu}}{L_{\mu}} \frac{L_{\mu}}{L} \frac{L}{LF} \frac{LF}{E} \frac{E}{P} \quad (4)$$

(b) Sectoral Level

The methodology that is applied at national level can also be applied with certain modifications at sectoral level. In that case, the demographic characteristics (population, age structure) are not so interesting and influential. Instead, the most decisive factors are all the characteristics that are related to the distinctiveness of the sectors structure in the economy. Looking at the application of the relevant relationships between these factors and the total economy we come to the conclusion that working time is influenced in a different way at each sector of economic activity. As such every sector evolves different patterns of change and response to the interrelation of the investigated variables.

In this study, we test this on a pilot basis to four different sectors of economic activity. Namely these sectors are: 1) Food, beverages and tobacco industry, (2) Non-metallic mineral products (3) Construction and (4) Hotels & Restaurants. In that case the changes of working hours are examined for the full-time employees in the private sector. The respective analysis relates to the period of 1995-2005 and the choice of the above sectors was based on the contribution of each sector in the total output (product) of the economy, as well as in the number of full-time employees that are recorded in them.

The methodological framework presented earlier is relevant however; we are mainly interested in the sector's structure with respect to the total economy.

Consequently:

$$\frac{X_i}{L_i} = \frac{X_i}{X} \frac{X}{L} \frac{L}{H} \frac{H}{H_i} \frac{H_i}{L_i} \quad (5)$$

where:

X_i product of sector i

X product of the total economy

L_i employment of sector i

L employment in the total economy

H_i working time (hours) of sector i

H working time (hours) in the total economy

So:

$$\frac{H_i}{L_i} = \frac{H_i}{H_{i\mu}} \frac{H_{i\mu}}{L_{i\mu}} \frac{L_{i\mu}}{L} \quad (6)$$

Where:

$L_{i\mu}$ the number of full wage earners in the private part of sector i and

$H_{i\mu}$ the working time of full time wage earners in the private part of sector i

Consequently:

$$\frac{X_i}{L_i} = \frac{X_i}{X} \frac{X}{L} \frac{L}{H} \frac{H}{H_i} \frac{H_i}{H_{i\mu}} \frac{H_{i\mu}}{L_{i\mu}} \frac{L_{i\mu}}{L} \quad (7)$$

4. Results

a) National Level

On the basis of the three approaches we used in this analysis (total employment/ full-time employees/ full-time employees in the private sector) the results could be more systematic in relation to working time at the level of national economy. For that reason we calculate the growth rates of the indicators that explain the changes on working time in Greece for the period of 1993-2006. Accordingly, we found that :

- In the first case (Total Employment) the total average weekly working time was reduced on the period under review by 0.18% (Table 7).

Table 7:

National Level (growth rates)

H/L	GDP/P	GDP/H	L/LF	LF/E	E/P
-0,18	3,49	2,76	-0,07	0,87	0,11

From Table 7 we draw the conclusion that the total change in working time is mainly explained by the respective changes in GDP per capita (+3.49%) and the rise in the labour productivity levels (+2,76%). The rest indicators influence the changes in working time per employee (H/L) only to a minor extent.

- Similarly in the second case (full-time employees) we found out that the marginal decrease of working time is heavily explained and attributed to the respective changes in GDP per capita (+3.49%) and the rise in the labour productivity levels (+2,73%). In parallel to this the indicators of H/Hm and Lm/L do not affect to a significant level the changes of Him/Lim (Table 8).

Table 8:

National Level (growth rates)

Hm/Lm	GDP/P	GDP/H	H/Hm	Lm/L	L/LF	LF/E	E/P
-0,01	3,49	2,73	-1,79	1,65	-0,07	0,86	0,11

- Finally in the third case (full-time employees in the private sector) it is obvious that the marginal decrease of Him/Lim can also be attributed to the behaviour of the GDP per capita (+3.49%) and the labour productivity (+2.71%) (Table 9).

Table 9:

National Level (growth rates)

Him/Lim	GDP/P	GDP/H	H/Him	Lim/L	L/LF	LF/E	E/P
0,07	3,49	2,71	-2,56	2,37	-0,06	0,85	0,11

Consequently, and according to the previous analysis, the GDP per capita and the labour productivity are the main decisive factors that affect more the marginal decrease of working time in the Greek economy in the examined period (1993-2006).

b) Sectoral Level

At the level of the examined sectors during 1995-2005 we initially realize that working time shows a marginal increase, except for the case of Hotels & Restaurants, in which working time increases. The factors that explain these developments differ from sector to sector as it is clearly shown in the following table (Table 10).

Table 10:
Sectoral Level (Growth rates)

	Manufacture of food products; beverages and tobacco	Manufacture of other non-metallic mineral products	Constructions	Hotels and Restaurants
Him/Lim	0,134	0,326	0,544	-0,178
Xi/Li	2,238	6,313	4,047	3,796
Xi/X	-1,794	3,510	3,849	1,846
X/L	2,632	3,279	2,718	1,880
L/H	-0,035	-0,043	-0,036	-0,025
H/Hi	1,531	0,365	-3,065	-0,684
Him/Lim	0,134	0,326	0,544	-0,178
Lim/Li	2,763	0,449	1,668	2,560

Nevertheless, for all sectors the indicators of the sector's productivity (Xi/Li), as well as the share of the sector in the total economy output (Xi/X) and the total labour productivity in the economy (X/L) are the most decisive in determining the final changes in working time. In other words the labour productivity at sectoral and the total economy level, as well as the GDP growth of each sector remain the most important variables in attributing the respective changes in working time. Consequently, in all levels of analysis we observe that GDP per capita and labour productivity determine almost entirely the changes in working time in Greece.

Conclusions

From the analysis regarding the trends of working hours in Greece, we can easily see that in the last decades a stagnation effect in collective working time reductions is observed. This condition is heavily influenced by the employer's strategies to extend daily and weekly working hours according to the ad hoc needs and demands of production. The State supports these strategies by incorporating to the national labour law regulations that aim to enhance work flexibility and by avoiding taking a stance on the issue of working

time reduction. However, despite the consecutive since the 1990s legislative efforts to disperse flexible forms of work and flexible working time arrangements no serious changes in working hours are observed.

Employers still manage to achieve greater flexibility by the traditional forms of overtime and extended shiftwork patterns and extremely limited cases of negotiated flexibility are to be found in the Greek labour market (flexibility agreements at the workplace, annualized hours schemes, etc.). This is often associated with the bypass and the violation of existing regulations on working time limits. The fact that the percentage of employees that usually work more than the conventional working hours (40 hours per week) remains almost unchanged for a considerable period as that of more than two decades speaks volumes.

Furthermore, the main contrary argument of employers and partly of the State to any attempt of reducing working hours is that such reduction will prove extremely harmful to the economy and its modernization process in the era of the volatile markets and the turbo-intensified competition. However, from the Index De-composition Analysis it was found that the marginal working hours' changes do not have a real economic base. Essentially, the evidence suggested that the developments in GDP per capita and in labour productivity determine almost exclusively the trends in working time in Greece.

From this angle two main topics for further research can be drawn:

The stagnation in actual hours of work and the impressive results in the field of GDP per capita and labour productivity growth is a combination that leads us with mathematical accuracy to two explanatory points. Either the companies have established a process of modernization with the inclusion of more effective, new technologies or they have followed work intensification policies. To that extent, the sectoral analysis can shed greater light on this, as important differences in working hours between different sectors of economic activity can be found. Besides, the present evidence suggests that the burden of excessive long hours is focused on certain activities and in the private sector of the economy.

Both GDP per capita and labour productivity have shown a remarkable increase over the years which in practical terms are a suitable condition for reducing working hours. Actually, it is an appropriate condition for trade unions to put forward their demands on working time as historically working time reductions always happened when there was an increase in GDP and labour productivity. However, unions in Greece have put the issue of working time in a second place in relation to wage demands. As such, a respective

analysis on the trends in real wages in accordance with the retail price index would be more than crucial in those terms. If employees have been compensated for the observed economic growth in terms of wage increase then the stagnation in working time can be considered as a rational choice by the unions. If however the rise on real wages lags behind those in GDP per capita and labour productivity then there is a serious issue of unequal distribution of income and of rising wage inequality. Employees were not compensated for the increased wealth of the economy either in the form of higher wages or in the form of less working hours.

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