

**THE DISTINCTION BETWEEN BASIC STATE PENSION¹ AND
CONTRIBUTORY² PENSION. THE PARADOXES OF THE RECENT
REFORM TO THE GREEK PENSION SCHEME (LAWS 3863 and
3865/2010)³**

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Abstract

Greece under severe financial and economic crisis has accepted the control of the World Monetary Fund and the European Union. Among other measures imposed on Greece is government funding to remain at 5% of the GDP until 2030. In order to fulfill this obligation Laws 3863 and 3865/2010 have passed. With these laws the distinction between basic pension and the contributory pension is introduced. A theoretical mathematical model based on social security principles for calculating the aggregate pension (basic state pension and contributory pension) is presented and compared to the model that corresponds to the recent reform to the Greek pension scheme. Apart from the social and economic merits of this reform, some paradoxes and shortcomings are pointed out.

I. The framework of the social insurance reform

With Laws 3863/2010 and 3865/2010, Greece has taken drastic measures in order to enhance the sustainability of the pension scheme and maintain the adequacy of pensions. Social reaction was rather moderate compared to the past. Greek society, under the pressure of a potential state bankruptcy, accepted what

¹ 'Basic' state pension is a pension funded by the state budget (through taxation) and granted by social insurance organizations. Instead of 'basic', the terms 'social' or 'national' could be used that refer us directly to national social solidarity.

² 'Contributory' pension is the pension awarded according to the contributions that were paid throughout the entire duration or part of a person's working life at net present value in correlation with pensionable age and upon deduction of the operating expenses of social insurance organizations.

³ Law 3863/2010 pertains to all persons insured except for civil servants. Law 3865/2010 pertains to civil servants.

had been rejected in the past, in the hope that the worst will not come. The applicable actuarial projections⁴ show that, were it not for these radical changes, in 2040, 24.1% of the GDP would be needed for pensions instead of the current 11.4%, 5% of which comes from the state budget and 6.4% from contributions and social taxes for the benefit of certain social insurance organizations.

The explanatory report of Law 3863/2010 states clearly that the aim is for government funding to remain at 5% of the GDP until 2030. In view of the fact that the number of pensioners is expected to rise whereas government funds remain at the same level, it is obvious that the reform of the social insurance scheme is summed up to reduced pension expenditure or/ and increased revenue. Laws 3863 and 3865/2010 mostly adopt provisions that limit the entitlement to a pension (reduced pensions, increased retirement age limits, extended contributions record required in order to qualify for pension) since, on the one hand, social insurance contributions are already high and, on the other hand, the high fiscal deficit makes any discussion on pensions being funded by the state sound unrealistic. What the legislator aims, at least, is for this ‘poverty allocation’ – because this is what it really is – to be implemented fairly. In some cases, the law succeeds in doing so whereas in others inequalities and distortions are caused (see below), which must be rectified in the future.

The Greek pension scheme derives its primary features from the Bismarck model; however, the manner in which it was implemented systematically ignored fundamental principles of the model, for example that benefits are determined in connection with contributions and based on actuarial projections. In the course of time, the legislator proved to be extremely generous to groups of the population that lacked sufficient qualifying time and had not paid contributions that could finance the pensions awarded to them. This occurred because, as regards the

⁴ These are the actuarial projections developed by the National Actuarial Authority (NAA), based on ILO standards, in connection with IKA-ETAM (Social Insurance Institute-Supplementary Pension Fund for Private Employees), the Insurance Organization for the Self-Employed (OAEE), the State and the Agricultural Insurance Organization (OGA), i.e. at a percentage corresponding to approximately 4/5 of the scheme. On the other hand, there had been previous projections such as a projection made by British Actuaries. The time-span of these projections is until 2030 and the validity of their findings has been confirmed in the course of time. The said projections have been published on the website of the Association for the Protection of Social Rights (EPKODI) on <http://www.epkodi.gr>

pensions awarded, there had been no actuarial projections or any respective provisions set up on how these would be funded. A typical example is that full pension was granted, irrespective of an age limit or with a low retirement age limit, with only 15 qualifying years required, to women, when it was obvious that, on the one hand, a population group perfectly capable of working would be disabled and, on the other hand, their contributions would not be sufficient enough to finance their pensions, given that they had paid contributions for 15 years whereas they would receive pension for more than forty five years (life expectancy for women is 82 years). These and many other provisions of similar nature led society to believe that social insurance means that social insurance organizations, being funded by contributions and, in any event, by the government, pay benefits irrespective of the contributions paid by each insured person throughout his/her working life. The want of a contributory principle and the resulting lack of social insurance awareness on the part of employees led to high rates of employees working without any social insurance or employees insured for less time than they actually work or for lower remuneration than what they are actually paid. Therefore, boosting the contributory element of the pension scheme and raising the awareness of employees in terms of social insurance is crucial to combating uninsured employment and enhancing the sustainability of the pension scheme.

Pensions are calculated based on a mathematic formula that takes into account the following factors: pensionable earnings (ΣA), contributions record and replacement ratio. Private employees' ΣA for contributions records up to 31.12.2010 reflect the total earnings for which contributions have been paid (except for Christmas or Easter or holiday bonuses) in the last five-year period prior to applying for pension benefits. The contributions record is calculated in qualifying years or working days (HE) (300 HE per annum). The replacement ratio is calculated over pensionable earnings (ΣA), which, as aforementioned, refer to the last five-year period prior to retirement and, as such, they do not reflect all the contributions that the insured person has paid. In Greece, there is no available information on the contributions paid by each insured person and when there actually is some information, e.g. in IKA-ETAM, this information only spans over

the past decade. The state pension replacement ratios for contributions records up to 31.12.2010 are, as regards persons affiliated to social insurance organization until 31.12.1992, 77% over pensionable earnings (ΣA) and, as regards persons affiliated to social insurance organization after 1.1.1993, 70% over ΣA . The mathematic formula in the case of an insured person paid on the basis of working days (HE) is $2\% \times (\text{HE: } 300) \times \Sigma A$, whereas in the case of an insured person paid on the basis of qualifying years (EA) is $2\% \times \text{EA} \times \Sigma A$.

It is asserted, particularly by the Greek General Confederation of Labor (GSEE), that because pensionable earnings and, in general, salaries are low in Greece, for this reason, this high replacement ratio fails, in practice, to result to high pensions. In 2005, 64% of IKA-ETAM pensioners (IKA-ETAM is the Social Insurance Institute for private employees) received pensions of up to 599 euro⁵ and the situation has yet to improve. However, it must be taken into account that the state pension replacement ratio is boosted with the supplementary pension replacement ratio and, as a result, the aggregate ratio is somewhat higher.

Greece is going through extremely hard times in terms of economic, fiscal and, as a result, social conditions. Already, there is a recession and a dramatic increase in unemployment rates. Therefore, state intervention is necessary in order for a minimum income that ensures a decent way of living to be guaranteed and social tensions to be avoided. To date, the state funded and granted, based on income criteria, the following social assistance benefits to insured persons: a) minimum pensions, namely the difference between the payable pension and the minimum pension required for decent living. The minimum monthly pension in 2010 was 605 euro, b) the Social Solidarity Benefit (EKAS) to pensioners with an income lower than the statutory limit. In addition, the state gave funds and the Agricultural Insurance Organization (OGA) awarded a pension of 360 euro to uninsured over-aged persons (over 65 years old).

⁵ Labor Institute of GSEE, "Actuarial projection for IKA-ETAM" by S. Rombolis, G. Romanias, V. Margios and I. Hatzivasileiou, 2005, page 14.

Based on these facts and in connection with the objectives of adequacy and sustainability, the contribution of the recent pension reform will be evaluated below – in particular, the distinction between the basic state pension and the contributory pension. In regards to this distinction, a theoretical model is developed, which places particular emphasis on the provision of incentives to people in order to obtain social insurance, given that uninsured employment plagues the Greek scheme (II.). Subsequently, the recent pension reform is presented and commented upon. (III.) Finally, the pension reform model is compared with the theoretical model for the purpose of demonstrating the paradoxes of this reform and the distortions that need to be rectified (IV.).

II. A theoretical model for the distinction between the basic state pension and the contributory pension⁶

1. Objectives - Principles: Pension is calculated based on the contributions paid by the insured person throughout his/her working life (in the initial application of the law, as there is no complete information available, pension can be calculated on the basis of the contributions paid in the last 10 years prior to retirement). In the event that the pension is lower than a statutory amount, then, it is supplemented by the state (basic state pension). This supplement amount paid by the state is a social assistance benefit to be awarded under certain conditions (age limit, income criteria). The amount of the basic state pension varies depending on the contributions that insured persons have paid for their social insurance. Hence, persons who have worked more receive a higher pension amount versus persons who have worked for a shorter time or not at all. However, even persons that have not worked at all are entitled, provided that certain age and income requirements are met, to a minimum pension in the form of a minimum social assistance benefit. Government funding for pensions that are below the statutory threshold is calculated based on the below mentioned objective criteria, namely in accordance with the principles of equality, social solidarity and justice.

2. Pension calculation method

⁶ Proposed by the writer to the Committee for Social Concertation on the social insurance reform where the writer was a member, upon request of the Ministry of Employment and Social Insurance.

a) Definitions

➤ Contributory pension (A) means the pension to which an insured person is entitled depending on the social insurance contributions paid by such person throughout his/her entire working life (or, in terms of the initial application of the law, the contributions paid for part of his/her working life) at Net Present Value in correlation with his/her age on the date of exit and upon deduction of operating and other expenses of the social insurance organization.

➤ Reference pension means the cash amount defined by law as a threshold under which the state supplements contributory pension. Reference pension shall be depicted hereinafter with the letter (P).

➤ Basic pension (B) means a social assistance supplement paid by the state in the event that the contributory pension is lower than the reference pension (P).

➤ Pension (Σ) means

either the contributory pension in the event that the amount thereof exceeds the basic state pension ($\Sigma = A$)

or the sum of the contributory pension (A) plus the basic pension (B) in the event that the amount of the contributory pension is less than the reference pension (P). That is, $\Sigma = A + B$.

➤ Minimum pension means a cash amount, which, under certain conditions, persons will receive from the state if their contributory pension is zero (safety net), namely if they have not worked at all.

➤ The expenditure incurred by the state for the basic pension equals the difference between the Pension minus the contributory pension ($B = \Sigma - A$).

b) *The mathematic formula for pension calculation*

🗨️ In the event that the amount of the contributory pension (A) is equal to or higher than the reference pension (P), then, the Pension (Σ) equals the contributory pension.

When $A > P$, then $\Sigma = A$

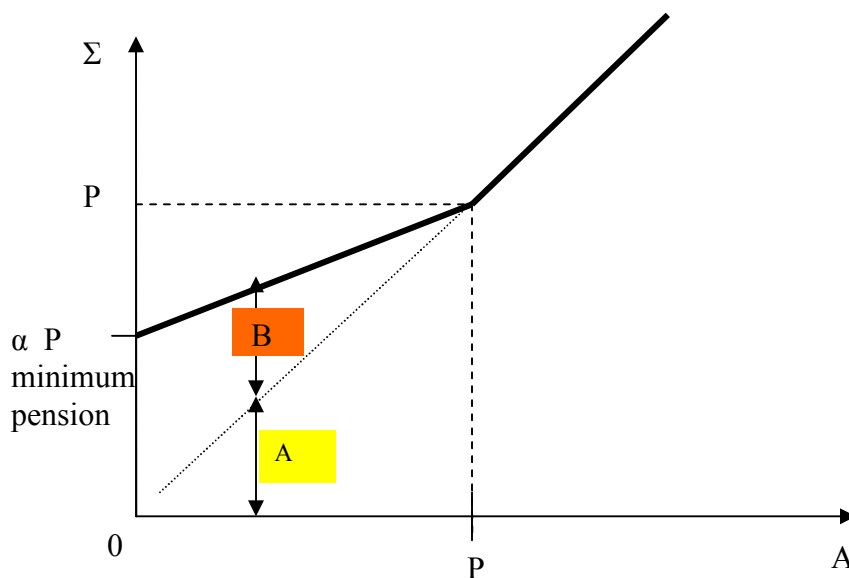
- ✚ In the event that the amount of the contributory pension (A) is lower than the reference pension (P), then, the Pension (Σ) consists of the sum of two parts, namely the contributory pension (A) plus the basic state pension (B). Namely, $\Sigma = A + B$.

The amount of the basic pension is determined with the formula $B = \alpha (P - A)$ where α is a solidarity rate ranging between 0 and 1. The values between 0 and 1 are determined based on the implementation of an appropriate social policy.

- If $\alpha = 0$, then, $B = 0$ and the pension is purely contributory.
- If $\alpha = 1$, then, $B = (P - A)$, therefore $\Sigma = A + B = P$, meaning that the pension is the same for everyone, namely it equals P for everyone, irrespective of the working life time-span of each insured person. Hence, Pension (Σ), which is the sum of the contributory and the basic pension, equals $\Sigma = A + B$ and as $B = \alpha (P - A)$, Σ can be depicted with the mathematic formula **$\Sigma = \alpha P + (1 - \alpha) A$** .

The pension for the uninsured which is to be awarded to persons with zero working days (**A = 0**) is **αP** .

c) *The theoretical model is depicted as follows in the chart:*



A = Contributory pension
B = Basic state pension
P = Reference pension (e.g. an amount of 600 euro)
 α = solidarity rate
 Σ = Aggregate pension

This chart (the black line) shows how Pension (Σ) is derived as a function of the contributory pension (A) and the reference pension (P).

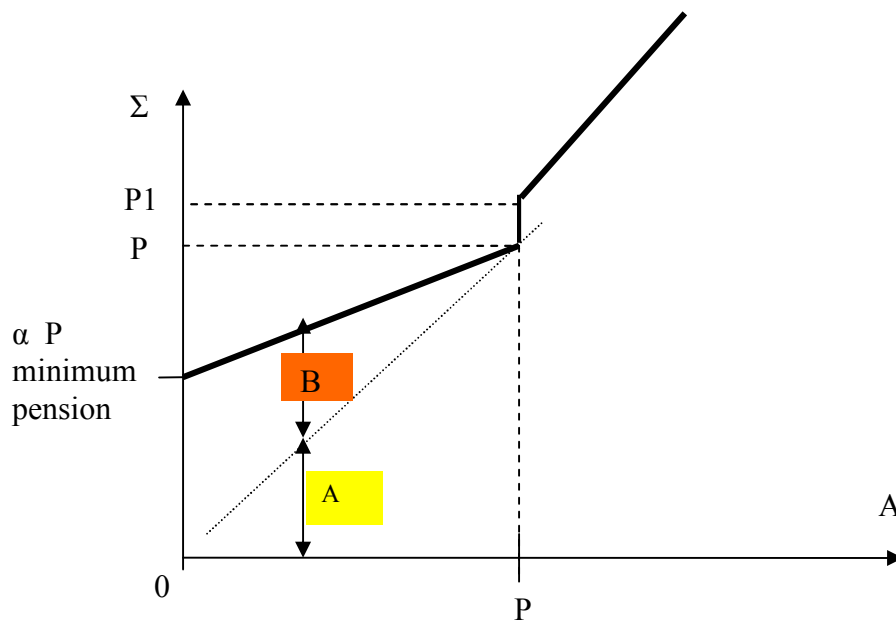
d) According to the foregoing:

➤ A high reference pension (P) means high pension replacement whereas a low reference pension (P) means low pension replacement. If, for example, the reference pension (P) is €500, then all contributory pensions lower than €500 shall be supplemented by the State according to the above mathematic formulas. If the reference pension is €700, then all pensions below this amount shall be supplemented by the State, which calls for higher state expenditure.

➤ If the solidarity rate is close to 0, then the government policy focuses on the contributory nature of pensions and, as such, pensions are virtually contributory. If, by contrast, the government policy focuses on solidarity and α is close to 1, solidarity prevails almost entirely and all pensions below P are raised to the level of the reference pension (P). Both of these extreme versions (0 and 1) do not serve the objective of balancing solidarity with the contributory principle; therefore, the solidarity rate should be fixed at an in-between value.

It is obvious that basic state pension decreases when contributory pension increases – however, in a way that aggregate pension constantly increases as contributory pension increases. As a result, this provides incentives for people to obtain social insurance at work and continue working. Thus, this calculation method allows the State to implement a proper social policy and determine government funding for the pension scheme at a higher or lower level in accordance with its economic situation and social priorities. In addition, there is a possibility for the persons that qualify for pension equaling the reference pension P to receive an additional amount (P1-P) as depicted in the following chart so that there is an extra incentive for at least attaining a minimum limit of qualifying time.

However, when P1 is too high in terms of the initial P, it can lead to distortions. In this case, the above chart is depicted as follows:



P1 = The reference pension increased by an amount as incentive for people to continue working and qualify for pension

α = solidarity rate

Σ = aggregate pension

The black line indicates how pension is derived as a function of the contributory pension (A).

3. Examples of how to calculate pension when the contributory pension is lower than the reference pension

➤ Example with a solidarity rate of $\alpha = 0.50$ and a reference pension of (P) = 600 Euro

i. Given that the insured person is entitled to a contributory pension (A) of €300, then, he/she shall receive a pension (Σ) = $0.50 \times 300 + (0.50) \times 600 = €450$

ii. Given that the insured person is entitled to a contributory pension (A) of €500, then, $\Sigma = 0.50 \times 500 + 0.50 \times 600 = €550$

iii. Persons who have not worked at all ($A = 0$) will receive the minimum pension, which is €300 (0.50×600).

➤ Example with a solidarity rate of (α) = 0.50 and a reference pension of (P) = € 700

i. Given that an insured person is entitled to a contributory pension of €300, then, $\Sigma = 0.5 \times 300 + 0.5 \times 700 = € 500$

ii. Given that an insured person is entitled to a contributory pension of €500, then, $\Sigma = 0.50 \times 500 + 0.50 \times 700 = €600$

iii. Persons who have not worked at all will receive the minimum pension, which is €350 (0.50×700).

➤ Example with a solidarity rate of (α) = 0.45 and reference pension of (P) = €800

i. Given that an insured person is entitled to a contributory pension of €300, then, $\Sigma = 0.45 \times 800 + 0.55 \times 300 = €525$

ii. Given that an insured person is entitled to a contributory pension of €500, then, $\Sigma = 0.45 \times 800 + 0.55 \times 500 = € 635$

iii. Persons who have not worked at all will receive the minimum pension, which is €360 (800×0.45).

The foregoing model can be further adjusted in connection with secondary objectives that may be set by the government policy. As such, it is an extremely flexible and transparent tool for the implementation of pension policy.

III. The pension reform and the distinction between basic state pension and contributory pension

1. Principles - definitions

The recent reform has re-evaluated the correlation between contributions and benefits (contributory principle), the association of social assistance with social insurance and the connection with pension readjustment based on demographic and development data. The government funds shall remain at the

same levels at least until 2015 and at that time it is assumed that what is so far only indirectly deduced from the law will then be specified, namely that government funding will be gradually limited to the basic state pension, certain social assistance benefits and extraordinary funding.

a) *Contributory pension* is defined in article 1, par. 2 of L. 3863/2010 as the pension amount that is corresponding to the amount of social insurance contributions for the qualifying years as of 1.1.2011 and thereafter in regards to any insured person that qualifies for pension as of 1.1.2015 onward, with such pension amount being paid by Social Insurance Organizations or the State to the people with a contributions record that is higher than one year.

The contributory pension is calculated as follows: Working days (HE) are classified in 10 classes and for each class there is a replacement ratio over Pensionable Earnings (ΣA), which starts from 0.80% for 1 HE to 4,500 HE and increases gradually to 1.50% for 11,701 – 15,000 HE. Monthly ΣA equal the aggregate remuneration of the working life for which contributions were paid, without taking into account Christmas, Easter and holiday bonuses, divided by the months of employment of an insured person in this period. Pensionable Earnings (ΣA) are taken into account as increased by the percentage change in the Consumer Price Index and with a rate of wage drift determined on an annual basis by virtue of a joint decision of the Ministers of Finance and Employment & Social Insurance following the opinion of the National Actuarial Authority and the National Statistical Service of Greece. As regards the self-employed, Pensionable Earnings (ΣA) are calculated based on applicable social insurance contribution classes, with a proportional application of the foregoing.

How the specific replacement ratios have been determined does not arise either from the law's explanatory report or ILOS' Technical Report to the National Actuarial Authority, entitled "*Consolidated financial development of the Greek pension scheme*", 2008-2060 of 22.6.2010, which was submitted before the Greek Parliament. It is possible that replacement ratios arise based on the very limited financial and actuarial capabilities of Social Insurance Organizations. In addition, the law for the pre-retirement indexation of yearly

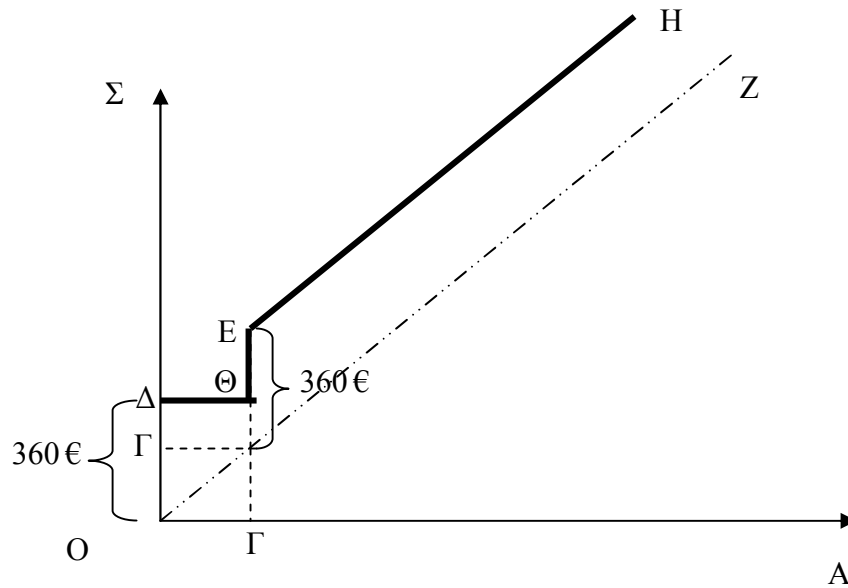
earnings, which is very important for the amount of Pensionable Earnings and, as a result, for the actual pension amount, defines no rates. The indexation rate will be determined, as afore-mentioned, by virtue of a Ministerial Decision.

b) *Basic state pension* is defined in article 1, par. 1 of Law 3863/2010 as a pension that is not associated with contributions in contrast with contributory pension. On the one hand, it is paid to insured persons with 4,500 or more working days or 15 or more qualifying years, without income criteria at the time of exit and, on the other hand, to insured parties with 1 to 15 qualifying years or 4,500 working days and to uninsured parties⁷, based on income criteria, at their 65th year of age.

The basic state pension is funded by the state budget with the exception of ETAA and ETAP-MME insured persons where the basic pension is funded by the said social insurance funds and awarded by the respective social insurance organizations or the State. The amount of the basic state pension is €360, which, until the application of this law, has been the amount of the social assistance pension granted to uninsured over-aged persons by OGA for years. In regards to reduced pensions, the basic pension is reduced by 1/200 for each month remaining until completion of the full retirement age limit. In regards to disability pensions, the basic state pension rate is determined according to the degree of disability.

⁷ The law receives positive evaluation as regards the fact that it establishes contributory pension for insured parties with less than 4.500 working days or less than 15 qualifying years but more than one qualifying year. To date, these insured persons were treated similarly to uninsured persons. Their contributions in the name of solidarity funded eventually the benefits for persons with more than 4.500 working days or 15 qualifying years. This new provision is extremely significant at a time when employees have a difficult time attaining the contributions record required in order to qualify for pension and, often, their working life is disrupted by interim periods of unemployment or underemployment. Employment precarity is thus addressed at a satisfactory level.

2. The scheme introduced by Law 3683/2010 is depicted in the chart as follows:



The black line depicts the pension (Σ) as a function of the contributory pension (A) where Γ = contributory pension for 15 qualifying years or 4.500 working days.

The pension arises as follows:

- ✚ In the event that the contributory pension is lower than Γ , then, it is supplemented until it reaches the amount of €360, provided that the beneficiary is at least 65 years old and that the requirements set based on income criteria are met. This is illustrated in the chart with line segment $\Delta \Theta$.
- ✚ In the event that the contributory pension is higher than Γ , then, at the time of exit (not necessarily 65 years of age), without income criteria, it is supplemented with the basic pension of 360 euro. This is illustrated in the chart with line segment $E H$.

3. Two paradoxes are identified:

First paradox: The basic state pension, which is funded through taxation, is awarded based on income criteria to uninsured persons and persons with a contributions record of up to 4,500 working days or 15 qualifying years whereas it is also awarded, without income criteria, to insured persons with a longer contributions record who, by objective standards, enjoy a higher income and, as such, they are in less need of protection.

The reasoning behind granting the basic state pension to all the people that qualify for pension irrespective of income criteria, which is adopted by the legislator, tries in essence to give an answer to the criticisms of trade union organizations, in particular, the Greek General Confederation of Labor (GSEE), which claims that contributory pensions are low and the state is responsible for the *“absence of social capital and the failure of subsidizing, albeit in part, the social insurance scheme disbursements from the returns on social capital...”*⁸. On the other hand, it fails to be recognized that the purpose of social insurance is to protect all insured persons - primarily, those who do not qualify for pension in a way, however, that gives incentives to people in order to obtain social insurance and qualify for pension.

Second paradox: Every concept of the contributory principle is cancelled as the pension of insured persons, in particular low-paid employees, with 15 qualifying years or 4.500 working days is subsidized with a much higher percentage rate as compared to workers with high contributions through taxation, without income criteria. As a result, persons with 15 qualifying years or 4.500 working days are low-motivated in terms of staying at work and, at the same time, highly motivated to report salaries lower than their actual salaries. In

⁸ Labor Institute of GSEE, “Actuarial projection of the social insurance scheme in Greece, L.D.S.A. (Laboratory of Demographic and Social Analyses) 2001, page 263. GSEE makes reference to the provisions of emergency law 1611/1950, pursuant to which Social Insurance Organizations were forced to deposit part of their reserves to the Bank of Greece at low interest rates. At the same time, however, when in need of borrowing, the loan rate was the market rate applicable from time to time. According to GSEE, as a result of these provisions, in 2000 the assets of the social insurance scheme amounted to approximately 5.6 trillion GDR whereas without the restrictions of the said law - according to GSEE's estimates - these assets would amount to approximately 20 trillion.

order to demonstrate how the contributory principle is cancelled by the pension scheme introduced with the pension reform, we will compare the pensions arising for 35 qualifying years and 15 qualifying years in regards to employees a) that became affiliated to social insurance organizations up to 31.12.1992, b) that became affiliated to social insurance organizations after 1.1.1993 and c) that will become affiliated to social insurance organizations after 1.1.2011 (Laws 3863 and 3865/2010). It is pointed out that for contributions records until 31.10.2010 the previous-to-the-pension-reform scheme applies whereas for contributions records after 1.1.2011, the new scheme shall apply. A reference period of 35 qualifying years is chosen because until 2010, this was the period that entitled people to full pension. In order for the differences to become clear, the said comparison is made based on low earnings (€1,000), average earnings (€1,800) and high earnings (€3,500).

TABLE 1 SCHEME FOR THE PERSONS AFFILIATED TO SOCIAL INSURANCE ORGANIZATIONS UP TO 31.12.1992 AND AFTER 1.1.1993

Qualifying years	Pensionable earnings	Person affiliated up to 31.12.1992	Replacement ratio	Person affiliated after 1.1.1993	Replacement ratio
35	1000 €	770 €	77%	700 €	70%
35	1800€	1386 €	77%	1260 €	70%
35	3500 €	2695 €	77%	2450 €	70%
15	1000 €	330 €	33%	300 €	30%
15	1800 €	594 €	33%	540 €	30%
15	3500 €	1155 €	33%	1050 €	30%

TABLE 2 SCHEME INTRODUCED WITH THE PENSION REFORM

Qualifying years	Pensionable earnings	Contributory pension	Replacement ratio	Basic pension	Aggregate pension	Aggregate replacement ratio
35	1000€	458.5 €	1.31%	360 €	818.5 €	81.85%
35	1800€	825.3 €	1.31%	360 €	1185.3 €	65.85%
35	3500€	1604 €	1.31%	360 €	1964.7 €	56.13%
15	1000€	120 €	0.8%	360 €	480 €	48%
15	1800€	216 €	0.8%	360 €	576 €	32%
15	3500€	420 €	0.8%	360 €	780 €	22.28%

The following arise from the foregoing tables:

- Based on the pension reform (Table 2), the aggregate replacement ratio for insured persons with 35 qualifying years ranges from 56.13% to 81.85%, at the expense of insured persons with higher earnings. In the case of 15 qualifying years, the aggregate replacement ratio ranges from 22.28% to 48%, again at the expense of insured persons with higher earnings. By contrast, in regards to persons affiliated up to 31.12.1992 and persons affiliated after 1.1.1993 (Table 1), a single replacement ratio applies for the same number of qualifying years, irrespective of the amount of pensionable earnings. For example, it is 70% for persons affiliated up to 31.12.1992 with 35 qualifying years, irrespective of whether their earnings amount to €1,000, €1,800 or €3,500.
- In the scheme introduced with the pension reform, Pension is the sum of the contributory pension and the basic pension. The contributory pension correctly adopts the - applicable to date - single replacement ratio for the same number of qualifying years, irrespective of the amount of pensionable earnings. Indicatively, for 35 qualifying years, the replacement ratio is 1.31% irrespective of whether pensionable earnings are €1,000 or €1,800 or €3,500. However, as the basic pension increases contributory pensions in a uniform manner, specifically by €360, insured persons with higher earnings (and, as a result, higher contributions) are awarded eventually with lower pensions (lower aggregate replacement ratio) versus insured persons with lower contributions.

IV. Assessment of the pension reform as compared to the theoretical model

1. The main differences between the pension reform and the theoretical model are the following:

a) The pension reform grants to all insured persons with a contributions record of more than 15 qualifying years or 4,500 working days the basic pension as

an increment to the contributory pension whereas the theoretical model grants the basic pension based on income criteria, i.e. provided that insured persons receive a contributory pension lower than the reference pension.

b) According to the pension reform, the basic pension is €360 for all insured persons with such amount remaining fixed in terms of the contributory pension whereas in the theoretical model, the basic pension amount, which applies only to pensions $> P$, increases proportionally to the contribution pension amount and, as such, it provides people with an incentive for staying at work.

c) The theoretical model stipulates income criteria for awarding the basic pension. For the purpose of administrative cost savings, it can be stipulated that the basic pension will be paid by Tax Offices in the form of a tax rebate while Social Insurance Organizations will be limited to awarding the contributory pension or the contributory part of the pension. Thus, on the one hand, what the state pays for the pension of each insured person and what is payable to each insured person based on their own contributions becomes clear. On the other hand, the rebate is granted taking into account the pensioner's aggregate income to which the basic pension is added. As a consequence, the basic pension amount depends on the beneficiary's income and is reduced on the basis of his/her total income and tax bracket, without any income criteria checks by Social Insurance Organizations being required. In addition, a higher tax rate for basic pension income can be stipulated so that a 'quasi-redistribution' may take place among persons insured.

d) According to the pension reform, these provisions shall apply after 2015 whereas the contributions records of persons affiliated to social insurance organizations up to 31.12.1992 and persons affiliated after 1.1.1993 will be calculated until 2011 based on the previous pension scheme. Hence, inequalities among different groups of the population will remain. By contrast, based on the theoretical model, the foregoing calculation of pensions shall apply to all persons insured that will submit an application for retirement after a certain point in time that will be determined by law. In this manner, inequalities among different categories of persons, depending on the time of affiliation, and among different schemes, depending on the social insurance organization, will cease to apply. It is

pointed out that despite the extensive consolidations of Social Insurance Organizations, schemes have not been consolidated and, as a result, organizations apply different social insurance legislations for different groups of persons affiliated to them. However, it is not unlikely that further transitional provisions shall apply within the scope of achieving a smooth transition from the previous scheme to the new one.

2. The defects of the pension reform in regards to the distinction between contributory and basic pension are the following:

a) The basic pension is not scaled up or down proportionally to the amount of the contributory pension of persons that do not qualify for pension so that the aggregate pension can increase proportionally to the increase in the contributory pension and, as such, to provide incentive for social insurance.

b) The basic pension practically results in canceling the contributory principle as regards pensions for a contributions record equal to or higher than 15 qualifying years or 4,500 working days. Hence, people are motivated to lie about their true income and socially inequitable solutions are given.

Assuming that basic pension is a social assistance benefit, then, it should have been awarded based on income criteria and pensioners' income of any nature should have been taken into account, e.g. rents. The law fails to do this in regards to pensioners with more than 15 qualifying years or 4,500 working days. As a result, an insured person with pensionable earnings of €1,000 and a contributions record of 35 qualifying years receives a pension with an 81.85% replacement ratio for €1,000, notwithstanding any other income this person may have, e.g. rents amounting to €50,000 per annum. On the other hand, an insured person with pensionable earnings of €3,500 and a contributions record of 35 qualifying years receives a pension with a 56.13% replacement ratio for €3,500 even if this person has no additional income. Thus, basic pension, in spite of the law's assertions, lacks a true social assistance nature for persons with a contributions record of more than 15 years and fails to serve the social assistance concept.

Assuming, however, that basic pension is a social insurance benefit, then, the lack of being scaled up or down in terms of the contributory pension is not consistent with its nature as it cancels the contributory principle and equalizes different categories of insured persons. In the name of solidarity, some restrictions to the contributory principle are permitted; however, when solidarity is subsidized through taxation, then, the aggregate income of insured persons should be taken into account - which is not currently the case in terms of the basic pension of persons with a contributions record of more than 15 qualifying years or 4,500 working days – so that everyone contributes proportionally to lifting state burdens and receives benefits according to their needs, as stated in the Constitution.

At any rate, accepting that low pensions are subsidized by higher pensions would be the same as accepting that the salaries of high-salaried employees subsidize the salaries of low-salaried employees. To date, this is not the case in the labor field, so why this could be the case in the social insurance field is beyond comprehension. Low pensions should, of course, improve, yet primarily through taxation and based on income criteria. The primary means for wealth redistribution should be taxation and, then, follows social insurance. It is not unlikely that measures will be taken in favor of persons receiving low pensions on the basis of solidarity within a group of insured persons, e.g. a pension ceiling; however, these measures should not result in canceling the contributory principle, blunting people's resolve to support social insurance, unequal treatment and disproportional burdens for those who have paid higher contributions.

Conclusions

The concept of making a distinction between the basic pension and the contributory pension may have a positive outcome on the sustainability of the Greek pension scheme. Despite the fact that it was adopted under enormous economic pressure and leads to a reduction in the pension replacement ratio, it attempts to do so in a socially equitable way, by protecting the most vulnerable groups of the population. However, there is always the danger that it might not achieve its objectives, since the basic pension, as instituted by the law, undermines the contributory principle.

The above theoretical model can serve as a basis for the enhancement of the scheme since it is a flexible and transparent method for implementing the desirable social policy from time to time, given that the legislator is able to determine the reference pension and the solidarity rate and introduce additional requirements for social insurance. In addition, this model specifies the scope of collective and individual responsibility, provides incentives for social insurance and improves conditions for persons insured that do not qualify for pension, without this, however, functioning as a disincentive in terms of social insurance. Finally, it is a method easy to implement since, upon calculation of the contributory pension by the social insurance organization and provided that the contributory pension is lower than the reference pension, all it takes is a mathematical formula and the PC automatically calculates the basic pension and the pension in aggregate.

The positive results in terms of pension adequacy and scheme sustainability will be many more if the theoretical model is combined with a new architectural structure of the scheme in connection with the role of supplementary pension and occupational retirement pension⁹, and the introduction, in part, of the funded pension scheme or the quasi-funded pension scheme (e.g. calculation of retirement points etc.)

⁹ A. Anagnostou – Dedouli in her article “Social Insurance Reform = New social insurance scheme” (in Greek) that was published on the website of the Association for the Protection of Social Rights (EPKODI), <http://www.epkodi.gr>.