Social Contributions in Romania

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ABSTRACT

Social contributions have an important impact on payroll policy. Also, social contributions represent a significant budgetary revenue item which can be viewed at the edge between taxation and insurance. Social contributions in Romania experienced many changes which ended in 2008. Nowadays, they are within a long transaction period towards partial externalization of the insurance activity to privately managed funds. The aim of this paper is to analyse the homogeneity of Romanian social security public scheme using annual data extracted from 2002-2009.The main findings reveal that social contributions reached the pinnacle of diversification, being too many, some of them with a small contribution rates; fiscal reforms which reduced contribution rates advantaged employers, and state will be interested to externalize this activity as far private sector will be able to assume this responsibility and the budgetary effects are acceptable for the public finance.

Keywords: Social contributions, Fiscal policy, Herfindahl–Hirschman Index, Romania

JEL codes: E62, H24

1.Introduction

Social contributions represent an important item of the budgetary revenues in Romania which are used for financing several services paying allowances for the insured persons. The social contributions policy plays an important role because the peoples' welfare depends on it.

The impact of social contributions should be set on payroll policy. A large amount of social contributions are perceived from wages, and only a small size is due to other types of revenues or voluntary insurance schemes. Hence, the social contributions policy guides the wage strategy of private companies and sets the behaviour concerning the choice between formal or informal employment.

The aim of this paper is, therefore, to analyse the homogeneity of Romanian social contributions, regarding the type and the weight each type has within the total budget. The paper is structured in four sections followed by conclusions. The second section describes

social contributions mainly from a theoretical point of view. Section 3 presents homogeneity term is described in strong relation with social contributions. Section 4 presents the main coordinates of fiscal policy in Romania, with special emphasis on analysed period of eight years: 2002-2009. The case study is presented in Section 5, being conceived from three different calculation approaches of Herfindahl–Hirschman Index (HHI) for social contributions. The last section comprises of the concluding remarks.

2. Theoretical Background of Social Contributions

Social contributions are revenues of the public budget and administrated by government entities as long as the market fails in providing social security schemes or private social services are threated to failure due the lack of profitability. Chronologically speaking, European countries governments were the firsts that implemented public pension schemes and social security transfers. Hence, the size of the government rapidly increasing in the early '1970s, due to the rise of social transfers (Stoian, 2011).

From government's point of view it is important to provide its citizens the best conditions of living and working as long as they contributed, are contributing and will contribute to economic prosperity. Therefore, people could be considered strategic resource and their wellbeing is quite critical (Ştefănescu et al., 2011).

Receipts from social contributions come from several sources. ESSPROS manual (Eurostat, 2008) identifies two main classes: employers' social contributions and social contributions by the protected persons. The first category integrate actual employers' social contributions and imputed employers' social contributions, while second category is divided into contributions paid by employees, self-employed persons, respectively pensioners and others.

Social contributions revenues are used for financing various social security services. Only the contributors are entitled to benefit from the social security schemes. But, there is no guaranty that contribution is proportional to benefits or unique rules are applied to all assured persons. An example in that sense is represented by special pensions' schemes provided by Romanian government (Dragotă and Miricescu, 2010).

Nevertheless, additional payers, such as the employers, are also constraint to contribute to social security schemes. Hence, employers perceive this fiscal burden as a tax (not as a contribution) because no direct or indirect service is provided by government for them. The coexistence of two categories of contributors raises the question of splitting up the owed contribution. Social contributions ratios paid by employers and employees differ according to the regulation introduced by each government. For instance, in the case of The Nederland, the correlation coefficient between employer and employee contribution rates is strongly negative (-0.532), which is suggestive of give-and-take among the collective bargaining parties and typical of a corporatist approach (Burda, 2010).

The exact level of social contribution ratios should be established in correlation with significant macroeconomic indicators and social targets. The budgetary equilibrium in each social security fund, or the accepted deficit, should be the starting point. In order to fulfil this requirement, policy makers should come with other indicators, net taxation burden

being of primary importance (Moşteanu et al., 2005). In order to finance the costs of social security schemes, governments should assess the size of all its financial resources coming from contributions, transfers from other budgets, surpluses from previous budgetary years, current year's approved deficit which can be covered by borrowings. Although contributions should cover entirely the social security costs, experience shows us that transfers from central budgets were vital in most cases to sustain the quick increase of pensions and allowances. During 1970-2012, many of the countries have faced the tendency of increasing public debt ratio due to the rise of government expenditures and social transfers (Curtaşu, 2011).

In the case of social contributions budgets, the revenues should finance the current payments, but also estimated payments associated with the occurrence of various social risks that may affect the contributors. For instance, in the case of unemployment benefits, the budget comprises also important amounts used to stimulate employers for hiring young graduates or for organizing training sessions (Roman, 2009)

When the policy makers decide introducing new actions affecting social contribution schemes, the size of revenues and expenditures should be modified accordingly. Hence, social contribution rates may be increased in order to cover the rising costs or social benefits can be reduced in a more or less manner by altering eligibility requirements or by changing the rules governing the indexation of pensions (Roşca and Rădoi, 2012).

3. The Homogeneity of the Social Contributions Schemes

We believe that an ideal situation would be when social contributions private schemes provide all the necessary insurance products for their contributors. In such situation market does not fail and the private companies provide acceptable guaranties on their solidity. Under these conditions, most of the governments have chosen to manage on their own the provision of social security benefits.

In order to assess the homogeneity of a social security system of a country we suggest the use of the Herfindahl–Hirschman Index (HHI) which reveals the size of concentration (Hirschman, 1964). In this study, HHI shows the homogeneity of contributions in for various periods of time. HHI is calculated by summing up the squared ratios of each type of social contribution. If HHI is closer to zero than the government should interfere actively by collecting more contributions from an extended range of payers. If HHI is getting larger than zero but close to 1, then government's intervention could be characterized as being minimal.

HHI calculation should be made on different levels for a more accurate analysis which also should be in accordance with the research question. Thus, we will consider for the analysis: (i) the homogeneity of social contributions regardless the persons who pay it; (ii) the relation between social contributions paid by beneficiary, respectively by other legal persons; (iii) homogeneity of the whole social contribution scheme by splitting the contributions on types and payers.

4. Developments of Social Contributions within Romanian Fiscal Policy

Romanian fiscal policy in the latest decades has been unstable to some extent as a consequence of the exploratory policies adopted by government in order to change the former communist system into a market oriented system. The social contribution scheme becomes more complex by introducing new types of contributions upon the existing ones, while others emerged by dividing the existing ones.

Social contribution policy was permanently connected to the taxation policy because social security funds were dependent by the state budget transfers. In Romania, Hye and Jalil (2010) found a bidirectional long run causal relationship existing between the government expenditures and revenues. Setting up the appropriate size of social contributions is crucial because it has impact on the viability of the social protection system and the services provided to workers and pensioners (Parlevliet and Xenogiani, 2008).

The tax burden carried by social security contribution was always a sensitive point because it defined further actions of employers and sealed the tendencies in the informal labour market. This burden was in a continuous descent, but the level is still significant. While in 2001 the tax burden was 55% (Dobrotă and Chirculescu, 2009), in 2012 it is around the value of 44%.

Social security budgets have some particularities because their main reason of existence is explained by the need of protection of each individual person. Any distortion generated in the companies' activity leads to distortions of the public budget (Boloş et al., 2010). In most of the cases, such distortions could have two-sided effects: they may reduce the revenues and also may increase the expenditures because the contributor could become one of the beneficiaries.

Also, on one hand, the Romanian social security system has been developed by multiplying the contribution types in order to have a more risk oriented system. This diversification could be argued by different calculation base used in case of each social contribution. On the other hand, we observed government's aim in providing services for the insured persons by minimizing transfers from the state budget.

In latest years, the fiscal policy referring to social security component was focused on preparing a migration of insurance for old age to private management. This process presumed creation of a new pillar (called second pillar) in pension system where young employees (those under 35 years) will be automatically insured in both pillars (first pillar being represented by the public insurance system, while the second pillar being the compulsory private system). From financial point of view, the social contributions paid by employees remained the same. Thus, the public social security system (first pillar) had to renounce from a part of revenues in order to transfer it to de administrators from the second pillar.

The social security fund was set up for collecting revenues from pension contributions and for paying pensions for retired persons. The financial difficulties which this budget confronted with were the result of changes in number of employees (those who contribute) and in the number of retired persons (those who benefit from pensions). The dependency

ratio in the public pension system (the ratio of contributors to the state insurance funds to pensioners) fell from 3.43 in 1990 to 0.89 in 2010 (Canagarajah et al., 2012). Thus, transfers from state budget to social security budget were inevitably, in addition with measures indicating the reform of the public pension scheme.

The social security system is under a continuous and long term on-going reform, also implying privately administrated pension funds which are managing parts of the contributions collected from young employees. This process will continue by increasing the contribution ratio ceded by public system to the privately administrated units.

The healthcare system is also built considering the assurance principles used for medical services. Wagstaff and Moreno-Serra (2009) classified Romanian social health insurance (SHI) only after 1998 despite the fact that payroll taxes were used before, but fully SHI was set up with SHI agency and contributions making up the majority of health care revenues.

The unemployment insurance budget was less analysed because the relatively small contribution ratio and the small amounts granted from this budget. The level of unemployment was not alarming and the unemployment fund was large enough to cover expenses and still keep surplus during numerous years.

5. Empirical Evidence

Romanian social security system has seven components which are the result of a long development process during the last two decades. The core contributions are meant to provide support at the end of active life, in case of health problems and if unemployment risk shows up. These three directions are supplemented by other three pillars: work accidents and occupational diseases, healthcare allowances and on-time wage payments. The last component is included in social contribution category, but it functions as a penalty for large employers if they do not hire disabled persons or not purchase goods produced by them.

Contribution payments are split up between protected person and a legal person who is required to contribute. In most cases the legal person is represented by the employer. In other cases the legal person could be a public body who supports the contribution in case of vulnerable protected persons like unemployed, arrested, imprisoned etc.

Our analysis aims to emphasize the evolution of social security contributions during eight years in Romania. A special stress is placed on different categories of social security contributions ant their weight in total revenues in social security budgets. Given the different weight of each social contribution and the different classification possibilities, we used IHH to measure the level of homogeneity of the whole and for each grouping level we considered relevant. The results should be a proxy of the fiscal policy in the field of social contributions.

For the purpose of this study, we use annual data ranged on 2002-2009. The data is extracted from the Romanian public budget execution approved by the Parliament. The data is grouped for each type of social contribution and for each type of contributors: legal persons or protected persons (the used for further calculations data is presented in the Appendix).

All the indicators are calculated based on effective cashed amounts at the budget in each year of the period under analysis. Thus, arrears are reflected only when they are paid to the budget. Informal employments are not reflected at all. When policy changes were introduced, the informal labor market reacted and changes were recorded in future periods.

The homogeneity of social contributions has modified as a result of diversifying the types of contributions collected to public budgets. The payment of the pensions to old age people represents the most important destination and it has the longest tradition in time. Subsequent contributions were introduced during the years, but their taxation ratios are lower than social security contributions'. In this context, the HHI varied as presented in table below.

Table 1   HHI in Romania reflecting homogeneity of contributions regardless the persons who pay it

Year	2002	2003	2004	2005	2006	2007	2008	2009
HHI	0.421	0.481	0.478	0.472	0.444	0.454	0.494	0.532

Source: own calculations based on data presented in the Appendix

The results show that the evolution of HHI is not monotonous. The latest four data show us a consolidation of the upward trend. Its significance resides in the importance of social security compared to other destinations. The latest reform on diminishing contribution ratios were not focused as much on social security (as percentage) than on other types of contributions.

Contribution diversification in 2004, 2006 and 2008 did not produce important changes because the share of the new contributions was extremely low. For example, the ratio of wage guarantee contribution is 0.25% from salary fund, while standard total social contribution ratio is 31.3% (125 times higher!).

According to the existing literature, the contributions should be paid by the protected person on whom the assured risks might occur. Also in Romania, the social contributions are shared by the protected person and by other legal persons who are called upon to contribute soldierly with the direct beneficiary. Moreover, some contributions are paid exclusively by the non-protected payer: contributions for work accidents and occupational diseases, contributions for healthcare allowances and contribution to the wage guarantee fund. The explanation for this situation is the low level of taxation ratio which do not exceeds 0.85%.

The relation between contributions paid by protected persons, respectively by other legal persons depends also on the fiscal policy. When budgetary revenues are intended to be raised by supplementary social contribution collecting, the discussed alternatives are built around taxation ratio increase for employers in order to protect employees' net revenues and purchasing power. In the happiest situations, when financial results allows for fiscal relaxation, policy makers relate their decision with the expected effects. When policy makers plan in rising employees revenues, they reduce the contribution paid by the

beneficiary of the social security schemes. When private entrepreneurial initiatives were at the forefront, policy makers reduce employer's taxation ratio.

Table 2 presents the distribution of the contribution payment between protected persons and other legal persons, mainly employers. Even the low complexity of this data composition allows a pertinent analysis based on shares, the HHI could contribute to a better deductive interpretation.

Table 2   Composition of the social contributions using the 'payer' criterion (Romania)

Indicator	2002	2003	2004	2005	2006	2007	2008	2009
Share of contributions paid by legel persons (%)	60.59	65.34	65.38	66.10	65.13	62.94	63.42	63.34
Share of contributions paid by protected persons (%)	39.41	34.66	34.62	33.90	34.87	37.06	36.58	36.66
HHI (%)	52.24	54.70	54.73	55.19	54.58	53.35	53.60	53.56

Source: own calculations based on data presented in the Appendix

We observe that the share of contribution paid directly by the protected person never exceeded 40% which illustrate that the main financial encumbrance remained in employers' task. These results strengthen the assertion that public policy was oriented to protect employees by relieving them by a part of their contribution and making less transparent.

The size of HHI ranges between 52.24% and 55.19% and confirms above argues. The slow fluctuations reflect the policy of alternative changes when taxation ratios were modified in one way or another. An additional factor is represented by arrears which affect the budgetary reports because evidences are cash based, which means that each contribution is recorded only when it is paid, regardless the reference period.

Also, the homogeneity of the whole social security system shows government's intervention in providing social protection for its citizens. If some components are not managed inside the public sector, the HHI tends to increase in order to reflect a smaller number of benefits which are subject to public financing.

Table 3   HHI in Romania reflecting the homogeneity depending on the contribution types and payers

Year	2002	2003	2004	2005	2006	2007	2008	2009
HHI	0.227	0.273	0.270	0.268	0.246	0.249	0.275	0.298

Source: own calculations based on data presented in the Appendix

We notice a slightly increase in the HHI for the latest four years implying that the contributions having the largest share recorded and increase which exceeded the increase of total revenues from contributions.

We believe that an optimization of fiscal policy in order to improve the social security system could mean a reduction of the contribution ratio paid by employers. Such a measure would create changes in HHI because the structure of contributions would be different. Hence, we expect that HHI to have smaller levels in the future.

6. Conclusions

Social contributions play an important role in assuring minimal living standards for the people (especially employees and retired persons). Depending on the agreed public policy, government can allow market in providing private social security schemes. In Romania, for instance, the pension system is under such reform during which only a small part of young employees are managed by private pension funds.

The design of Romanian social security contributions is quite large as a result of several years' reform during which policy makers felt the need to handle each type of social risk separately. Additionally, in case of social contributions which have oppressive rates this load was divided between assured person and its employer. For the next years the trend seems to be influenced by those decisions which will permit a migration to privately managed funds.

The HHI for contributions reflects the fiscal policy in this field. The tendency of this index showed that the: social contributions reached the pinnacle of diversification, some of them being too many, and with a small contribution rates; fiscal reforms which reduced contribution rates advantaged employers, and state will be interested to externalize this activity as far private sector will be able to assume this responsibility and the budgetary effects are acceptable for the public finance.

References

Boloş M., Moşteanu T. and Popovici I., 2010. Chaos or Turbulence on the Volatility of Public Revenues. The Annals of the University of Oradea, Economic Sciences vol. 1/2010

Burda Michael C., 2010. Paying for Social Security in the Long and the Short Run. Duisenberg Lecture 2. Netherlands Institute for Advanced Study in the Humanities and Social Sciences

Canagarajah S., Brownbridge M., Paliu A. And Dumitru I., 2012. The Challenges to Long Run Fiscal Sustainability in Romania. Policy Research Working Paper no. 5927, World Bank

Curtaşu A.R., 2011. How to Assess Public Debt Sustainability: Empirical Evidence for the Advanced European Countries. Romanian Journal of Fiscal Policy, vol. 2 (2)

Dobrotă G. and Chirculescu M.F., 2009. Impact of Tax Policy in Romania on Budget Revenues. Annals of the University of Petroşani, Economics vol. 9 (1)

Dragotă I.-M. and Miricescu E., 2010. The Public Pension System of Romania between Crisis and Reforms. The Case of Special Pensions System. Theoretical and Applied Economics, vol. XVII, no. 9(550)

Eurostat, 2008. ESSPROS Manual: The European System of integrated Social Protection Statistics (ESSPROS), 2008 edition. European Communities

Hirschman A. O., 1964. The Paternity of an Index. The American Economic Review, vol. 54 (5)

Hye Q.M.A. and Jalil M.A., 2010. Revenue and Expenditure Nexus: A Case Study of Romania. Romanian Journal of Fiscal Policy vol. 1 (1)

Moşteanu T., Cataramă D., Stoian A., Câmpeanu E., Pădurean E., Marin D., Semenescu A., 2005. Economia sectorului public, ediţia a II-a. Editura Universitară, Bucureşti

Parlevliet J.and Xenogiani T., 2008. Report on Informal Employment in Romania. OECD Development Centre Working Paper no. 271, OECD Paris

Roman D.L., 2009. Regards About Evolution Of Social Assistance Expenditure During Financial Crisis. Theoretical and Applied Economics vol. 12(541)(s)

Roşca V., Rădoi M., 2012. The Impact of Ageing Population on the Social Security Budget: Case Study for Brazil, China, Germany, Japan, and the United States. Budgetary Research Review vol 4 (1)

Stoian A., 2011. A Retrospective Approach on Government Response to Increasing Public Debt: Empirical Evidence for European Countries. Centro de Investigação em Gestão e Economia Working paper no. 15

Ştefănescu A., Mocanu M. and Ţurlea E, 2011. Participatory Governance In The Public Healthcare Systems Of The Scandinavian And Baltic Countries. The Annals of the University of Oradea, Economic Sciences vol. 2/2011

Wagstaff A. and Moreno-Serra R., 2009. Europe and central Asia's great post-communist social health insurance experiment: Aggregate impacts on health sector outcomes. Journal of Health Economics vol. 28(2)

Appendix

Social contributions collected to Romanian public budgets during 2002-2009 (millions lei)

	2002	2003	2004	2005	2006	2007	2008	2009
Social security contributions from legal persons	5,888	8,065	9,845	11,923	13,374	15,940	21,126	22,561
Healthcare contributions from legal persons	2,213	2,661	3,410	4,101	5,085	5,379	6,235	6,019
Unemployment contributions from legal persons	1,304	1,174	1,311	1,590	1,677	1,845	1,171	569
Contributions for work accidents and occupational diseases	0	0	223	503	662	687	674	324
Contributions for healthcare allowances	0	0	0	0	604	743	787	813
Contribution to the wage guarantee fund	0	0	0	0	0	0	200	196
Contributions of legal persons for unemployed disabled persons	519	113	43	28	222	256	292	244
Social security contributions from protected persons	3,237	3,421	4,261	5,064	6,259	7,923	9,810	10,352
Healthcare contributions from protected persons	2,993	2,679	3,246	3,836	4,832	6,103	7,221	6,903
Unemployment contributions from protected persons	226	274	349	406	485	604	549	530
TOTAL	16,380	18,389	22,690	27,450	33,200	39,479	48,066	48,512

Source: Romania budget executions laws (Law no. 409/2004, 417/2004, 5/2006, 6/2006, 242/2006, 244/ 2006, 280/2008, 281/2008, 282/2008, 283/2008, 87/2009, 125/2009, 193/2010, 194/2010, 119/2011, 120/2011)