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**INFLUENCE OF SOCIAL SECURITY CONTRIBUTION  
RATE IN EUROPEAN BANKING INDUSTRY**

**Muneeb Ahmad**

MS Scholar

Liaoning Technical University , China

Muneeb452@yahoo.com

**Abdul Rehman**

PhD Ssholar

Liaoning Technical University

Rehman51jb@gmail.com,

**Muhammad Nazir**

PhD Scholar

Xi'an Jiaotong University



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**Abstract:** The debate on the significance of the social security is as old as social security itself. The recent significance shrink between the cost and income of the social security is an alarming situation for all the stakeholders. The shrinking in social security surplus reduces the government and firm's ability to rely on that surplus. This shortfall will lead to made up increased taxation, borrowings, or by reductions of social security contributions or combination of these alternatives. We analyzed the relationship of social security contribution and employment growth in the European banking over the time span of 2006 to 2015. We found the U shaped relationship, as increase in the social security contribution cost more to the banks which leads downsizing. Meanwhile social security payments boost the economy as the People who receive Social Security benefits are not saving that money for a rainy day. They pumped it back to the economy by purchasing goods and services. The businesses that receive that spending in the form of selling goods and services realize profits and hire more employees. This is what exactly we find the U shaped relationship for the European banking industry. So social security has multiplier effect on the economy, businesses and workers.

**Keywords:** Social Security, Taxation and stakeholders

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## **1 Introduction**

Franklin D. Roosevelt introduced the concept of the social security by signing the social security Act on Aug. 14, 1935. It's all about the social insurance system with an idea that if workers pooled a portion of their wages, they would be able to protect their families against wage loss due to retirement. Through this national benefits program, Social Security made available a basic level of monthly income to workers who paid into the system.

Approximately fifty six million people enjoy social security benefits, with the retired workers that are dominated with sixty nine percent following by disabled persons or their children about nineteen percent and twelve percent being survivors of deceased workers.

Due to the multiplier effects of the social security, it is a strong need to critically check on the social security system and Laws. In the literature there is much more noise about the solvency of the social security, so this is the time to take proactive measures for the better management of the social security.

The economic theory suggests that the firms are willing to compensate workers equal to the value of their productivity. This compensation can be any form but for the employer total cost does matter. It might be cash benefits, non cash benefits as per the policies of the firms and workers desire. Workers prefer a portion of their total compensation to be paid in the form of pension benefits because their net

compensation is enhanced by the favorable tax treatment of pensions

Firms contribute in the social security programs because of two reasons depending upon the circumstances of the country. More commonly first firms are legally bound to contribute in the social security in the form of insurance, pension which they supposed to contribute at all cost. The second motivation behind offering such contributions by the firms is to attract, retain and eventually retire the quality workers.

If deferred compensation yields greater total value to workers, firms with pension plans will find it easier to employ quality workers. There is another reason to maintain the pension scheme is to offer higher incentives to workers to adjust the retirement timing as per the human resource need.

## **2 Review of Literature**

It has been widely argued that lower social contributions leads higher job turnover. To overcome this issue many firms designed very healthy social security system to retain and attract the talented people. Robert L. Clark (1999) explained that firms want to retain the talented workers so they offer them much compensation. They also argued that firms invest lot of money on the training of the employees and they do not want to lose all their invested money and if it happens they could not survive in this competitive world.

As it has been argued that pension contribution influence the dividends and investment opportunities for the

firms. Weixi Liu and Ian Tonks investigate the influence of the pension contribution on the dividends policies and investment policies for the UK-listed firms. Using a sample of DB pension schemes in FTSE350 UK-listed firms, they concluded that there is negative influence of pension contribution on the dividends and investment policies of the firms. This ultimately leads to decrease in the financial performance of the firms as the higher contribution in the pension schemes creates financial pressure on the firms. To overcome this pressure firms raise external capital which is expensive and higher contribution in the pension fund also reduce the internal capital available for the investments and pay the dividends.

Similarly Bunn and Trivedi (2005) investigate the relationship between the pension contribution and dividend payout ratio of the UK listed firms and cite the significant negative relationship. In addition Rauh (2006) came with the same conclusion that there is negative relationship between the pension contribution and investments opportunities but he adds that this might be true for the firms which are voluntary contributing to the pension fund and also argues that this happens because of the financial constraints.

The lack of invest funds and lower the dividend payout ratio later creates the agency problem between the shareholders and pension holders. Cocoa and Volpin (2007) find that

firms that are more leveraged firms and majority of pension trustee are the insiders they are tend to invest more the equities. On the other hand Rauh (2009) argued that firms with poorly funded pension plans are more likely to invest in the risk free securities like government bonds and cash. Franzoni (2009) examines the reaction of the stock prices to the mandatory pension contribution and he concludes that there is a sharp fall in the stock prices of the firms which had the financial constrains.

The success of the businesses dependent upon the market share but in this competitive world generate reasonable and sufficient market share is not a piece of cake. For attracting more customers, firms need to provide high quality products and high quality services which are not possible without quality workers Fevang et al. (2014). Without satisfying the employee's needs, they could not provide quality products and services before their most valued employee take their talents to competitors. Employee can afford to give an employer more commitment and loyalty when the company finds a way to give them more financial security Lu et al. (2010) and Yao and Zhong (2013).

As social security contribution is an expense for the firm, at start it attracts more talents to the company which definitely benefit the firm in the form of good products and services, meanwhile to afford these talents cost a lot for the firms. This article is an effort to examine this

relationship for the European countries. As European countries do have sound labor laws and bond the firms to pay the social security for the employee. The following section describes the research methodology and data section.

**3 Data and Methodology**

The OECD Social Expenditure Database (SOCX) has been used for the European banking sector. We utilize the data of social contribution rate and the number of employees and also expansion of business in terms of the number of branches. The study covers the time span of

ten years for the 2006 to 2015. We utilize the quadratic regression model to examine the relationship between the social contribution rates and number of employee's .Through this model; we are assuming that the increase in the social contribution has double influence on the employees. We employ the same model for individual countries too.

**4 Results and Discussion**

Table 1- describes the descriptive statistics of the country wise social security contribution rate and number of employees in the banking industry of the European countries

**Table 1: Descriptive of Social Security in European Countries**

<i>Spain</i>				Belgium			
SSR		Employee		SSR		Employee	
Mean	21.9946	Mean	4.552E+10	Mean	25.7767	Mean	105752067
Standard Error	1.16836392	Standard Error	9075573959	Standard Error	0.711178709	Standard Error	9942222.72
Median	23.8645	Median	5.7027E+10	Median	26.5645	Median	111707331
Standard Deviation	3.694691122	Standard Deviation	2.8699E+10	Standard Deviation	2.248944545	Standard Deviation	31440068.8
Kurtosis	-1.827862307	Kurtosis	-1.269002	Kurtosis	-1.254197989	Kurtosis	0.34851054
Skewness	-0.320883104	Skewness	-0.8459392	Skewness	-0.292051078	Skewness	-0.9665617
Range	9.927	Range	6.856E+10	Range	6.715	Range	98214428.2
Minimum	16.773	Minimum	4802341559	Minimum	22.135	Minimum	47459548.4
Maximum	26.7	Maximum	7.3362E+10	Maximum	28.85	Maximum	145673977
Count	10	Count	10	Count	10	Count	10

Poland				Slovak Republic			
SSR		Employee		SSR		Employee	
Mean	17.5807	Mean	1.8499E+10	Mean	17.1533	Mean	294266124.1
Standard Error	0.59236828	Standard Error	3816225253	Standard Error	0.479074	Standard Error	67573295.25
Median	17.0185	Median	1.7452E+10	Median	17.1865	Median	389984465
Standard Deviation	1.873232978	Standard Deviation	1.2068E+10	Standard Deviation	1.514966	Standard Deviation	213685522
Kurtosis	-0.645141176	Kurtosis	-2.3619737	Kurtosis	-0.288225	Kurtosis	-2.002230564
Skewness	0.778774181	Skewness	0.09041014	Skewness	-0.095485	Skewness	-0.247029301
Range	5.35	Range	2.758E+10	Range	4.882	Range	522379957.8
Minimum	15.65	Minimum	6798257431	Minimum	14.758	Minimum	52852298.19
Maximum	21	Maximum	3.4378E+10	Maximum	19.64	Maximum	575232256
Count	10	Count	10	Count	10	Count	10

Ireland				Italy			
SSR		Employee		SSR		Employee	
Mean	18.1875	Mean	1104806825	Mean	24.352	Mean	84153079596
Standard Error	1.117211263	Standard Error	211964828	Standard Error	0.84967	Standard Error	16424406280
Median	19.8315	Median	1378632557	Median	24.5315	Median	1.15529E+11
Standard Deviation	3.532932218	Standard Deviation	670291639	Standard Deviation	2.686893	Standard Deviation	51938533061
Kurtosis	-	Kurtosis	-1.3309251	Kurtosis	-1.592049	Kurtosis	1.225266146
Skewness	-0.43495129	Skewness	-0.8251297	Skewness	0.142881	Skewness	1.033239081
Range	9.021	Range	1592795210	Range	7.2	Range	1.09526E+11
Minimum	12.979	Minimum	155531759	Minimum	20.8	Minimum	8878429065
Maximum	22	Maximum	1748326969	Maximum	28	Maximum	1.18405E+11
Count	10	Count	10	Count	10	Count	10

Finland				Germany			
SSR		Employee		SSR		Employee	
Mean	22.0256	Mean	2936030560	Mean	25.5592	Mean	3.50789E+11
Standard Error	0.950220293	Standard Error	533521855	Standard Error	0.333444	Standard Error	65558881086
Median	22.4095	Median	3479984068	Median	25.714	Median	4.21688E+11
Standard Deviation	3.004860403	Standard Deviation	1687144243	Standard Deviation	1.054442	Standard Deviation	2.07315E+11
Kurtosis	1.618853358	Kurtosis	-1.4141832	Kurtosis	1.154231	Kurtosis	1.108210066
Skewness	-9.9748E-05	Skewness	-0.7233314	Skewness	-0.19039	Skewness	0.913846476
Range	8.45	Range	3989348147	Range	3.117	Range	4.98873E+11
Minimum	18.05	Minimum	589397006	Minimum	23.883	Minimum	29801008246
Maximum	26.5	Maximum	4578745153	Maximum	27	Maximum	5.28674E+11
Count	10	Count	10	Count	10	Count	10

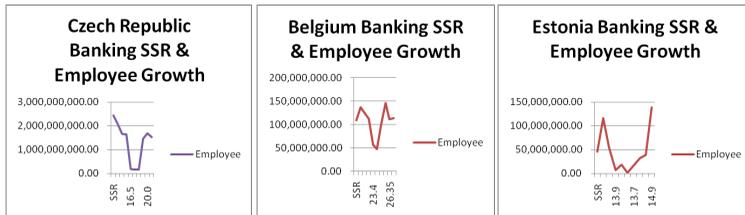
Czech Republic				Estonia			
SSR		Employee		SSR		Employee	
Mean	18.8278	Mean	1303892449	Mean	13.5193	Mean	47098800.41
Standard Error	0.553371039	Standard Error	261553846	Standard Error	0.720075	Standard Error	14571789.1
Median	19.013	Median	1585812317	Median	13.925	Median	35893778.5
Standard Deviation	1.749912874	Standard Deviation	827105883	Standard Deviation	2.277077	Standard Deviation	46080043.15
Kurtosis	0.927402904	Kurtosis	-1.1334002	Kurtosis	0.645703	Kurtosis	0.685265952
Skewness	0.225108291	Skewness	-0.5468831	Skewness	1.104895	Skewness	1.279776477
Range	5.281	Range	2263004472	Range	7.168	Range	137509570
Minimum	16.469	Minimum	171431128	Minimum	9.06	Minimum	1596030.198
Maximum	21.75	Maximum	2434435600	Maximum	16.228	Maximum	139105600.2
Count	10	Count	10	Count	10	Count	10

On average the social security contribution rate in the Belgium is the maximum which is 25.77 percent and on the other hand the minimum social contribution rate is observed in the Mexico which is 8.29 percent. More interestingly the more variations in the social security contribution rate come in the Spain as evident by standard deviation of 3.6946 having the average social contribution rate is 21.99 percent. The main reason behind this high contribution rate is the extensive social security system. Foreigners also are entitled to certain allowances and to social services.

In Belgium employers are supposed to contribute in the social security up to 40.58% of the gross salary for blue-collar employees and approximately 34.58% of the gross salary of white-collar employees. Companies with fewer than 20 employees pay slightly less. Under the 2015 "Tax shift agreement" the maximum effective contribution rate will be lowered to 30% on 1st April 2016 and to 25% on 1st January 2018. The social contribution is due on the gross salary. The social security

contributions also pay the firm in the form of tax saving as its deductible business expenses for corporate income tax purpose.

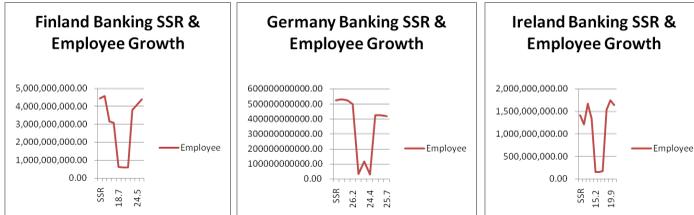
On one hand it is good for the employees and for the government as a source of the revenue on the other hand its benefit for the firm to save the tax for the firms. Firms can enjoy the lower tax and employee's loyalty by providing the financial benefits for the firms.



**Figure 1- U shape graphical trend of Belgium, Czech Republic and Estonia**

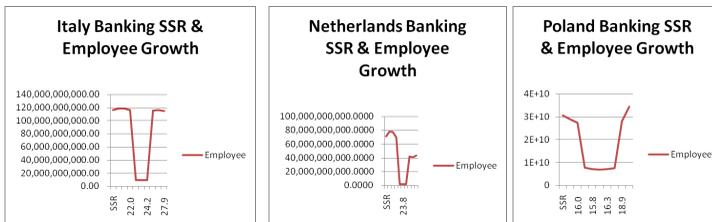
Belgium has very extensive social security laws not only for the national employees but for the international employees too. In Belgium about 35% of the social security contribution comes from the employer which is quite reasonable. If we see the graph of the Belgium it is shown very clearly that due to strict and extensive laws, they employee are quite sensitive to the social security. The social security administration is the largest administration of the country with an annual income and expense of almost CZK 750 billion. The employer contribution to the social security is about 21.5% which is quite handsome. The social tax rate in Estonia is paid by the 33%.

All the countries graph are U shaped graphs which explains the importance of the social contribution in above stated countries. It means this theory is true that whenever firms decrease the social security contribution they cannot retained the good employees and whenever the increase the contribution they can retain good workers.



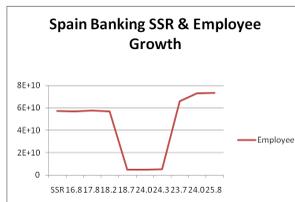
**Figure 2- U shape graphical trend of Finland, Germany and Ireland**

The social security rate in Finland is quite high that is 30.19 percent. Through 2000 till 2016, the average social rate remains 30.71 percent and the minimum is 29.48 percent. Finland's social welfare system is among the most advanced and comprehensive welfare systems in the world. No doubt about 90 percent of the population in Germany participates in the social security programs. The German social security system is under pressure because of the demographic change in the population. The significant number of old people who are going to retire and need to take the pension fund, health insurance and nursing care where the number of young and active employees is less with comparison of the old peoples. So this is another reason that there is a high rate of social contribution for the firms to retain and attract more talent people and they do have more options as there is a shortage of young people and employees throughout the country. Ireland's social security system has less contribution from the employee which is 4 percent while the contribution by the employer is all about 10%.



**Figure 3- U shape graphical trend of Italy, Netherlands and Poland**

The social security contribution rate in Italy is quite impressive which is on average 42.99 percent. This is quite higher as compared to the Finland which is considered among the advanced social security system in the world. The employees' contribution to the social security system is about 10% while a significant contribution comes from the employer which is 25 percent of the employee salary. The contribution rate in Italy varies across the industries and as per the benefit received. The Netherlands' social security system is also well established, which binds all the employees and employers to contribute to the social security system. On average, employees contribute more than the employer in the Netherlands. The Polish social security system is made up of three pillars, to which payments are made. The first one is obligatory pay-as-you-go, principally administered by the state, while the second one is also obligatory common capital managed by private entities, and the third one is voluntary managed by private entities. The employer contribution in Poland is higher than employees' that is 23.19 percent and 13.71 percent respectively. From this comparison, the Italian social security system is quite sound.



**Figure 3- U shape graphical trend Spain**

The Spanish social security system consists of contribution and non-contribution systems. According to the contribution system, a general scheme is applicable to all employed persons who are not covered by special schemes, plus certain categories of civil servants. In the non-contribution system, persons who face a specific situation of need, and whose income is below a certain legally prescribed level, are eligible for non-contributory benefits. They may be entitled to this even if they have never paid social security contributions, or have done so but are not entitled to the resulting benefits under the contributory system.

### **5 Conclusion**

No doubt, the social security system throughout Europe is quite sound and is getting improving day by day. But there is still a complicated area of EU law regarding the coordination of social security among all the members. The member states have always closely guarded their competences in this area, thus resulting in a complex patchwork of highly different systems of social security across the member states. Experts divided the whole

system into three systems named Bismarkian, Beveridgian system and Nordic. According to the Bismarkian, contributions are similar to the insurance based regimes, whereas Beveridgian system based on a mix of need and residence with some types of benefits having a contribution element. The Nordic system is all about the universal rights, qualified on residence in the

territory and decoupled from contributions and employment record. For the time being the most important and critical area for the Europe is the coordination of social security programs among the member states. Although significant progress has been made but there is still need to sit together and resolve the diverse social security issues among the member states.

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