**Influence of Social Security Contribution Rate in European Banking Industry**

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**Abstract:**

This article examines how the social security contributes influence the competitiveness of the European banking industry. It is widely argued that firms with the firms with the higher social contribution face the financial distress. To overcome these issues firms practice different strategies like on one hand they attract the talents to survive in the competitive environment and secondly they do the downsizing to maintain their cost. In this study we examined the same relationship for the European banking industry. In this study we utilized the data of European banking industry for 2006 to 2015. We find the U shape relationship for the social security contribution rate and firms employees.

**Key Words:**

Social security Contribution. U shaped and European Banking

**Introduction:**

The social security contribution by the employer is great reward for the employees on one side but meanwhile it’s a burden for the employer on the other hand. Where it is mandatory for the firms to contribute for the social contribution it is also mandatory for the firms to maximize the wealth of the shareholders. Due to its dual twist, understanding the contribution of the social contribution, it is ever important for researchers and practitioners to find the relationship of social contribution and firm’s growth.

Before going to the depth and develop the relationship of the social security contribution with the firms competitiveness, firstly we define Social security contributions are compulsory payments paid to general government that confer entitlement to receive a (contingent) future social benefit. They include: unemployment insurance benefits and supplements, accident, injury and sickness benefits, old-age, disability and survivors' pensions, family allowances, reimbursements for medical and hospital expenses or provision of hospital or medical services. Contributions may be levied on both employees and employers. Such payments are usually earmarked to finance social benefits and are often paid to those institutions of general government that provide such benefits. This indicator relates to government as a whole (all government levels) and is measured in percentage both of GDP and of total taxation.

It is widely argued that firms which are paying the higher social contribution they sometimes have shortage of funds to investment in the operations of the business. Especially when the external capital is expensive it is really a tough situation for the firms to manage the funds and many firms mange the required funds from the internal sources by deducting the dividends that causes the agency issues (f.i. Johansson and Palme 2005, Ziebarth and Karlsson 2010). Handling of agency cost itself a big challenge for the firms.

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.

**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 rate and number of employees .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.

**Descriptive statistics:**

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 statistics***

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| ***Belgium*** | | | | ***Chile*** | | | |
| *SSR* | | *Employee* | | *SSR* | | *Employee* | |
| Mean | 25.7767 | Mean | 105752067 | Mean | 11.7789 | Mean | 1457950545 |
| Standard Error | 0.711178709 | Standard Error | 9942222.72 | Standard Error | 0.491986 | Standard Error | 237742714.8 |
| Median | 26.5645 | Median | 111707331 | Median | 11.938 | Median | 1593461415 |
| Standard Deviation | 2.248944545 | Standard Deviation | 31440068.8 | Standard Deviation | 1.555797 | Standard Deviation | 751808476 |
| Kurtosis | -1.254197989 | Kurtosis | 0.34851054 | Kurtosis | -0.729504 | Kurtosis | -1.063226353 |
| Skewness | -0.292051078 | Skewness | -0.9665617 | Skewness | -0.445106 | Skewness | -0.19014789 |
| Range | 6.715 | Range | 98214428.2 | Range | 4.88 | Range | 2060038976 |
| Minimum | 22.135 | Minimum | 47459548.4 | Minimum | 9.12 | Minimum | 470855888.1 |
| Maximum | 28.85 | Maximum | 145673977 | Maximum | 14 | Maximum | 2530894864 |
| 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 |
|  |  |  |  |  |  |  |  |
| ***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 |
|  |  |  |  |  |  |  |  |
| ***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 | -1.897562677 | 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 |
|  |  |  |  |  |  |  |  |
| ***Mexico*** | | | | ***Netherlands*** | | | |
| *SSR* | | *Employee* | | *SSR* | | *Employee* | |
| Mean | 8.29 | Mean | 5.0464E+10 | Mean | 24.6615 | Mean | 42661664039 |
| Standard Error | 0.6300807 | Standard Error | 1.3999E+10 | Standard Error | 0.894902 | Standard Error | 10083819830 |
| Median | 7.4285 | Median | 5.484E+10 | Median | 24.0825 | Median | 42704426264 |
| Standard Deviation | 1.992490123 | Standard Deviation | 4.4269E+10 | Standard Deviation | 2.829928 | Standard Deviation | 31887838179 |
| Kurtosis | 2.893831811 | Kurtosis | -1.6931231 | Kurtosis | -1.092093 | Kurtosis | -1.591166209 |
| Skewness | 1.707955538 | Skewness | 0.13978341 | Skewness | 0.389884 | Skewness | -0.352110057 |
| Range | 6.567 | Range | 1.1779E+11 | Range | 8.231 | Range | 77039739297 |
| Minimum | 6.433 | Minimum | 1454573291 | Minimum | 20.769 | Minimum | 1265985503 |
| Maximum | 13 | Maximum | 1.1924E+11 | Maximum | 29 | Maximum | 78305724800 |
| 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 |
|  |  |  |  |  |  |  |  |
| ***Spain*** | | | |  |  |  |  |
| *SSR* | | *Employee* | |  |  |  |  |
| Mean | 21.9946 | Mean | 4.552E+10 |  |  |  |  |
| Standard Error | 1.16836392 | Standard Error | 9075573959 |  |  |  |  |
| Median | 23.8645 | Median | 5.7027E+10 |  |  |  |  |
| Standard Deviation | 3.694691122 | Standard Deviation | 2.8699E+10 |  |  |  |  |
| Kurtosis | -1.827862307 | Kurtosis | -1.269002 |  |  |  |  |
| Skewness | -0.320883104 | Skewness | -0.8459392 |  |  |  |  |
| Range | 9.927 | Range | 6.856E+10 |  |  |  |  |
| Minimum | 16.773 | Minimum | 4802341559 |  |  |  |  |
| Maximum | 26.7 | Maximum | 7.3362E+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 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.

***The Graphical U shaped Relationship between Social Security Contribution Rate and Number of Employees***

If we look closely the graphical shapes of the social security contribution rate and the number of employees which is we taken as the proxy of the size of the firms meanwhile we observed that all the European countries social contribution rate is U shaped. These figures illustrate clearly how these countries SSR is changing over the periods of the time.

The common trend in these countries is observed as they all belong to the same region and from the same region. We observe that in some countries the shape of the graph is not as perfect the U shape as like Slovak, Poland and Estonia this is because of the rapid changes in the SSR changes.

The possible interpretation of this U crave is that once the companies offered high SSR rate definitely attract more talents but meanwhile the SSR contribution is the expense for the companies. Many scholars i.e. Staubli (2011) does support the SSR as it is on one hand the expense for the firms meanwhile it’s the tax shelter for the firms, it’s a trade off for the firms.

For developed nations like European countries SSR is quite compulsory for the firms to protect and design decent labor rules, they bond firms legally to contribute for the employees of the firms. In this scenario firms have very limited options. First they can attract more quality people and provide the best services for the customer and get the competitiveness of the firms. But this is common for the firms every company can attract the talent but to survive in this competitive world, is itself a challenging task.

So firm sometimes do the downsizing because small firms cannot afford the SSR expensive for the big firms as they have sound employees numbers. Secondly small firms do the downsizing and try to maintain the high talented people. For big companies it’s still challenging because the SSR rate is quite high as in the descriptive analysis we feel on average the SSR rate is more than 15 percent which is quite high expensive.

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