

# The Impact of Social Security in Labour Market:

## Evidence from France

### EFFETS DE LA SÉCURITÉ SOCIAL DANS LE MARCHÉ DU TRAVAIL:

#### PREUVE DE FRANCE

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**Abstract:** This paper investigates the relationship between social security and labour market in France and calculates the regression relation among social security expenditure, social security contribution, enterprise investment and unemployment rate. The results indicated that the labour market has a closed relevance with social security. Reducing the social security contribution of enterprise is an important means to control the unemployment. And the proper level social security expenditure is the most crucial factor to keep the beneficial cycle between social security and labour market.

**Key words:** Social Security Contribution, Social Security Expenditure, Labour Market

**Résumé:** Dans cet article, on fait des enquêtes et des analyses sur la relation entre la sécurité sociale et le marché du travail dans la société française, et des calculs des relations entre l'offre de la sécurité sociale, des investissements d'entreprises, et du chômage ; la baisse de la charge d'entreprise sur la sécurité sociale est très effective pour baisser le chômage ; le traitement convenable de la sécurité sociale est la clé pour garder la bonne circulation entre la sécurité et le marché du travail.

**Mots-Clés:** sécurité sociale cotisation, sécurité sociale dépense, marché du travail

## 1. INTRODUCTION

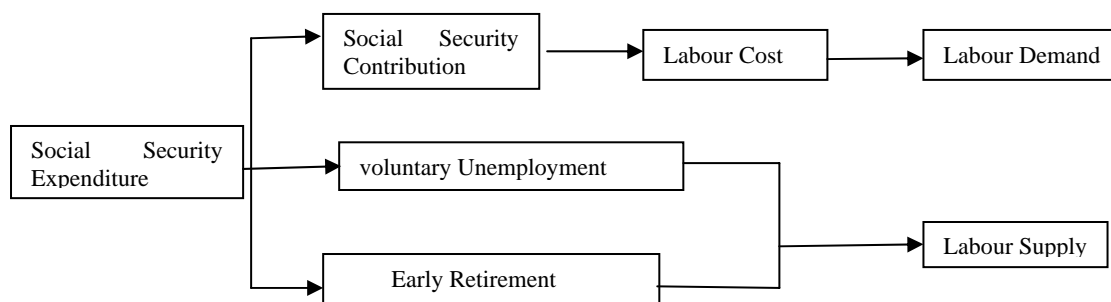
The relationship between social security and labour market has long been noticed in the economics research field. As an income redistribution means, the social security expenditure will be a part of labour cost. Therefore, social security must enhance the labour cost and effect the labour demand of employer. Furthermore, the high level social security expenditure perhaps leads to the increase of voluntary

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unemployment and early retirement. The active mechanism between social security and labour market can be described as follows:



In this paper, we adopt the data from 1985 to 2004 of France to inspect the correlativity between social security and labour market. And hope to find a method to effect the labour market by adjustment of social security.

## 2. EMPIRICAL ANALYSIS OF SOCIAL SECURITY IMPACT IN FRENCH LABOUR MARKET

### 2.1 Status of Social Security Expenditure and Unemployment in France

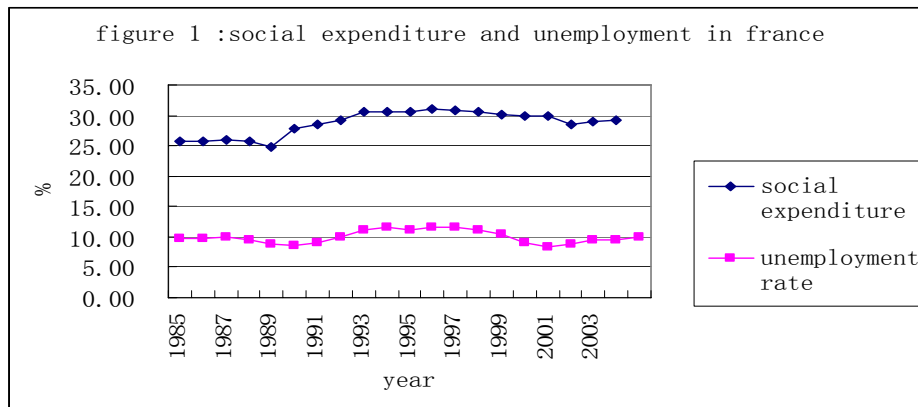
Social security expenditure in France is always a huge amount. It is almost 30% of French GDP. In the mean time a fairly high rate of chronic unemployment has placed great pressure upon the job market. Table 1 displays the two factors changes from 1985 to 2004:

**Table 1 Social expenditure and unemployment rate in France**

year	1985	1996	1997	1998	1999	2000	2001	2002	2003	2004
%Social expenditure	25.77	31.00	30.80	30.50	30.20	29.80	30.00	28.50	29.00	29.30
%Unemployment	9.66	11.57	11.54	11.08	10.45	9.09	8.40	8.89	9.46	9.57
%Long-term unemployment	43.74	39.62	41.40	44.22	40.44	42.56	37.59	33.76	42.91	41.65

Source: <http://stats.oecd.org/wbos/default.aspx>

The social security expenditure and the unemployment rate have been keeping the high level for a long time. The persons unemployed for 12 months or more have occupied above 40% of the total unemployed persons. The data show that the serious disturbance between labour demand and supply has happened in French labour market. And we can find that the trend of the unemployment is very similar to that of the social security expenditure from the figure 1.



## 2.2 Correlation Analysis of Social Security Contribution and Unemployment

According to the active mechanism between social security and labour market, the high level social security expenditure will result in the high contribution of enterprise. The french employers must turn more than 30% of payrolls to the social security for there employees.

**Table 2: French Enterprise Contributions of Social Security in 2006**

item	Old Age	Sickness	Work Injury	Unemployment	Family Allowances	Sum
%contribution rate	8.3	12.8	4.0	2.26	5.4	32.76

Source: <http://www.ssa.gov/policy/docs/progdesc/ssptw/2006-2007/europe/france.html>

And the enterprise contribution burdon is getting more and more heavy in the view of the time trend. This has been a most important portion of the labour cost of french enterprise.

**Table 3 Change of French Enterprise Contribution Rate**

item	enterprise contribution rate				Employee contribution rate			
	1989	1999	2003	2006	1989	1999	2003	2006
%Sickness	12.6	12.8	12.8	12.8	5.9	6.8	6.8	0.75
%Old Age	8.2	9.8	8.2	8.3	7.7	6.55	6.55	6.55

Source: <http://www.ssa.gov/policy/docs/progdesc/ssptw/2006-2007/europe/france.html>

Table 3 shows that the social security contribution burdon of french employee is much lighter than that of employer. The most social security revenue have to depend on the enterprise contribution. With the increasing of the social security expenditure, the tax on the average worker is nearly half of the total labour cost of French enterprise.

**Table 4 Change of Tax as a Percentage of Labour Cost**

year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
%tax as a percentage of labour cost	49.1	49.70	48.69	47.63	48.06	49.56	49.81	49.75	49.81	49.84

Source: <http://stats.oecd.org/wbos/default.aspx>

Such heavy social security burdon must bring out the decrease of the profit of the enterprise if the price of the product is still kept marking competitiveness. The reduction of profit will cut down the ability to invest of french enterprise. With the decreasing of enterprise hiring ability, the unemployment must increase In large numbers.

**Table 5 Growth rate of Investment, Unemployment and Social Contribution**

year	1986	1996	1997	1998	1999	2000	2001	2002	2003	2004
%Investment growth rate	0.93	-1.27	-2.54	2.56	4.73	3.51	0.03	-3.82	0.41	1.84
%Unemployment growth rate	1.33	3.68	-0.29	-4.16	-5.97	-14.9	-8.31	5.59	6.00	1.14
%Social security contribution growth rate	—	1.65	0	-0.33	0.66	-1.33	0.99	0.66	0	0

Source: <http://stats.oecd.org/wbos/default.aspx>

We can make the regression analysis among the social security contribution, enterprise investment and unemployment according to the data from 1986 to 2004. The regression conclusions as follows:

$$I = -2.01SC + 0.43 \quad R = 0.719 \quad P = 0.0037 \quad (1)$$

$$UE = 4.32SC - 2.24 \quad R = 0.708 \quad P = 0.005 \quad (2)$$

I: Investment growth rate UE: Unemployment growth rate  
SC: Social security contribution growth rate R: correlation coefficient

Obviously there is the closely correlativity among investment, unemployment and social security contribution in France. The increase of social security contribution will decrease the investment and rise the unemployment.

Otherwise, visa verse. The rising unemployment leads to the higher social security expenditure. And the higher expenditure request the more social security contribution. A vicious circle has come into being in France. The effect of social security contribution caused by unemployment can be calculated as follows:

$$SC=0.12UE+0.59 \quad R=0.708 \quad P=0.005 \quad (3)$$

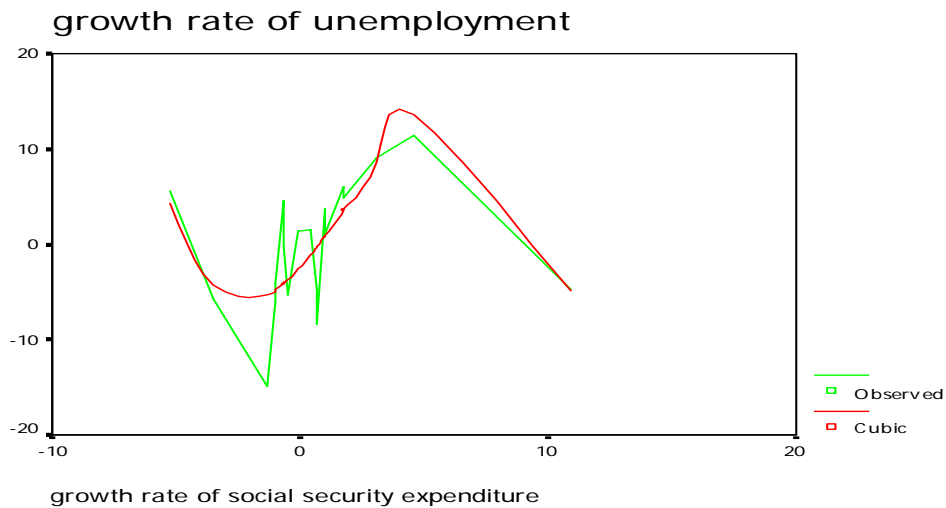
### 2.3 Correlation Analysis of Social Security Expenditure and Unemployment

Examination the correlativity between social security expenditure and unemployment can help us to find a proper range in which the adjust of social expenditure can avoid the provocation of unemployment. The regression conclusions between social security expenditure and unemployment as follows:

$$UE=4.21SS+0.67SS^2-0.09SS^3-3.84 \quad R=0.77 \quad P=0.000 \quad (4)$$

SS: growth rate of social security expenditure

**Figure 2 Mimetic Diagram of Regression Relationship between Social Security Expenditure and Unemployment**



The regression analysis displays whether the increase of social security expenditure cause the rise of unemployment is decided by the concrete position of social security expenditure. We must avoid the span in which the two factors are under the positive direction. Prevent the increase of unemployment that caused by the variation of social security expenditure.

### 3. CONCLUSIONS

We investigate the data of social security and unemployment from 1985 to 2004 in France. Our results have several implications for other countries which are building or reforming their social security systems.

First, there is the closed relevance between the social security and labour market. So we can estimate the optimum state of social security by observe the labour market.

Second, reducing the social security contribution of enterprise is an important means to control the unemployment. The overtop social security contribution will reduce the investment and strike the hiring

ability of enterprise. And the rising unemployment expenditure will further the social security contribution. We must break the vicious cycle by control the social security contribution of enterprise.

Third, the social security expenditure must keep on the proper level. Although the high standard social security expenditure can bring the better living conditions, the cost is very expensive. We must exchange it by long-term unemployment, even the economic depression. So the proper level social security expenditure is the most crucial factor to construct the sustainable social security system.

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