PRIVATE SUPPLEMENTARY ENDOWMENT INSURANCE FOR FOREIGN INVESTED COMPANIES IN CHINA

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Abstract

This research designs a feasible program of private supplementary endowment insurance (PSEI) especially for foreign-invested companies (FIC). The PSEI fund was established taking advantage of government regulations on limited compulsory social insurance payment and tax deductible policy on the surplus of the difference between the total salary expenses of FICs and the local average salary (LAS). It is also designed based on forecasting of the accumulation and expenditure of the fund. A case study of employing this program for a sample company is illustrated.

Key words: ***Private Supplementary Endowment Insurance (PSEI), Foreign-Invested Company (FIC), Social Security System.***

Introduction

Since China's reform and opening process entered into its critical stage, *i.e.*, to establish the "socialist marketing system with Chinese character" in the 1990s, the foreign-invested companies (FICs) have been trying hard to localize their management teams while maintaining their attraction to highly qualified personnel. These FICs not only continue to offer high payments to their staffs but also try to improve their benefit packages steadily. The establishment of endowment insurance programs, especially the private supplementary endowment insurance (PSEI) program, is one of the most important measures.

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One of the basic principles of the current social security system in China is its "three-party contribution" fund-raising mechanism. Both employer and employees are required to contribute a certain amount of money while the government not only provides a tax deductible policy to encourage the employers' involvement in the system but also subsidizes the overall on-going balance of the local social security system. Details of the rules depend upon the economic development and financial status of a particular region (Province or City)[3]. In Shanghai, the compulsory retirement fund comes from two parties. Employers have to contribute 25.5% of the total salary of all on-the-job employees and employees have to pay 8% of their own salary to the fund [Shanghai Municipal Government Document No. 36 (1996)]. All of these contributions are tax deductible. The 33.5% (25.5%+8%) thus derived from the total salary may be divided into two different parts for different purposes. Only 19.5% of the fund will go to an individual's personal account for one's own future retirement, while the other 14% will contribute to a social account for current retirement payments. When a person retires, his or her monthly retirement payment is his or her accumulated individual account divided by 120 (assuming an average life expectancy for the retired population is 10 years). Thus, a person with a higher income will have a lower substitution rate for their retirement pension (Yu and Chen, 1997). For this reason, the maximum chargeable amount of salary subjected to the compulsory social security contribution may not exceed 200% of the average salary of the Shanghai local population.

In general, FICs usually pay higher salaries than the average salary of local enterprises, and they hire younger and better-educated employees for their new business. There is a significant gap between the FIC's and the local average salaries (LAS), because salaries of more than 70% of the FICs' staff are far higher than the local average salary (even for 200% of the LAS). Government encourages foreign employers to use the surplus of their total salary expenses to set up private supplementary endowment insurance (PSEI) for the employees who may still enjoy the tax-deductible benefit. This government policy creates favorable conditions for FICs to design programs of PSEI and to improve their benefit packages. Therefore, the endowment insurance policy of a FIC generally includes the following three parts:

(1) Basic endowment insurance (BEI): That is the compulsory retirement program managed by the Social Insurance Bureau (SIB) of the local government. The premium rate is 19.5% of the salary described as above.
(2) Common supplementary endowment insurance (CSEI): This is a voluntary program but is also provided by the Social Insurance Bureau (SIB). Some FICs choose CSEI programs such as paying additional premium on 5% of the total employees' salary to SIB to provide their employees' with additional benefit after their retirement.

[3] For a province with low economic development level, employee and employer could contribute smaller amount for their social security (includes future retirement, medical, unemployment, etc.). For example, the lowest compulsory contributions for retirement program are 21.5% and 5% of salary from employer and employee respectively in Anhue but 25.5% and 8% in Shanghai.

(3) Private supplementary endowment insurance (PSEI): The tax-deductible allowance is 25.5% of the real total salary. As many FICs pay 13 -17 months' salary to their staff while the chargeable month number is 12, there are 1-5 months surplus. The maximum chargeable salary base is 200% of local average wage. Staffs' salary above 200% of local average salary thus has surplus too. The surplus after paying (1) and (2) to the SIB will contribute to the PSEI fund.

Therefore, taking the accumulative accounts of all these funds described, we can design a PSEI program.

In this paper, by calculating the accumulative source of PSEI fund and forecasting the dynamic situation of company staff retirement, we predicted the expenditure of the fund during the program's future practicing period. Based on this prediction, we design a benefit package model program for staffs and workers of FICs. In order to be scientific and practical, the program must be confined to the following four conditions:

(1) It is based on the company's economic return and capability of supporting the program.
(2) It is advantageous to maintain or enhance the company's attraction to qualified personnel.
(3) It is related to staff member's business position, employment duration and working performance. It should play a positive role in staff motivation.
(4) It should benefit the staff as far as possible, but at the same time balance the inequality between different age groups of staff, which was caused by various kinds of government stipulations implemented at different period in history.

Calculation of the Accumulative PSEI Fund

The calculation of the accumulative PSEI fund involves many uncertain factors. For example, variations in government social security policies; changes in local average salary; the fluctuation of an enterprise's profit; the rise and fall of the return on social invested funds, etc. However, the sourcing of the fund can be mainly divided into four parts:

Part 1: The progressive and proportional withdrawing from the surplus of FICs' total salary expenses minus the upper limit sum of 200% of the LAS, which is subject to the 25.5% compulsory payment to SIB for social insurance programs of both BEI and CSEI. This progressive withdrawing of the PSEI fund is carried out in proportion to the amount of surplus. If the FIC's total salary is 200.01%~250% of the LAS, 50% of the surplus should be drawn as PSEI fund and 50% as CESI. If the total salary is 250.01%~300% of the LAS, 75% of the surplus should be drawn as PSEI and 25% as CSEI. If the total salary is more than 300% of the LAS, 100% of the surplus should be drawn as PSEI. Sometimes, FICs pay their staff 13~17 months'

salary. The 25.5% of the extra paid salary (do not include the 12 months' salary) could be charged to PSEI fund without any discount. Since the said regulations were put into force in 1996, most of FICs have accumulated sizeable amounts in their PSEI funds.

In other words, because the fund comes mainly from the "scissors difference" between the FIC's salary and the LAS (200% of LAS, more accurately), the calculation of the fund must be based on two predictions: (1) the prospective increase rate of LAS; (2) the prospective fluctuation of the particular company's performance.

For prediction (1), Yu and Chen (1997) offered a detailed exposition and corresponding conclusions. Prediction (2) is related not only to the forecast of fluctuation of the FIC's profit, but also to the annual increases in staff's salary determined by the FIC's internal human resource policy.

Part 2: The accumulative individual PSEI fund is not portable: it cannot be taken with him when a staff member when he/she leaves the company in an abnormal way, such as resigning or being fired. Generally speaking, the turnover rate of personnel in FIC is higher than in state-owned enterprises. The turnover rate exceeds 20% for some posts such as marketing, secretary, computer technology, and high level managers. Those people's individual accumulative PSEI fund left over in the company will be absorbed into the pool of the total PSEI fund.

Part 3: According to an Ordinance of Shanghai Social Security System, the SIB will give back a certain amount of the investment return generated from Shanghai's retirement funding to workers based upon some computational formula. It is crucial for us to make an objective prediction of the long-term trend of social security policy change (especially the change of some key data).

Part 4: The interest income or the investment return of PSEI fund. It is necessary to predict the average return and expenditure of the fund.

The Design of the PSEI Program

The design of the program was broken down into three steps:

(1) Set up different PSEI premium rates according to different samples of staff's employment duration, business position, working performance and expected salary when they retire;

(2) Based on step (1), forecast the total substitution rate for current staff who will retire with different employment duration, business position;

(3) Set up individual PSEI accounts for every employee of the company and write a management software, which can be linked with the company's salary database.

There are two main operational patterns of PSEI which can be selected, and which are widely used at home and abroad.

Pattern 1: Defined Contribution Model

In a ※Defined Contribution Scheme § the contribution rates are defined and the amount of benefits accrued is based on the accumulated contributions with investment income. This mode is often adopted by Sino-American enterprises, the calculating formulae are:

$$R_{ss} = r \% A$$

R_{ss} - PSEI substitution-rate of staff retired

r - composite coefficient, depending on individual's situation, such as one's post, performance, etc.

A - employment duration, means the number of working years in this enterprise

Thus

$$M_{ss} = R_{ss} \% W$$

M_{ss} - endowment that the staff can receive from PSEI program at the moment of his or her retirement

W - substitution base quota, which is always defined as 3-5 years' average salary before retirement

With this model, we can simplify the calculation and the payment of the PSEI, while the composite coefficient can be taken as human resource motivation. However, it is difficult to set up a staff's individual account by this model. What is more, it is nearly impossible to forecast the retirement salary level of present staff precisely.

Pattern 2: Defined Benefit Model

In a ※Defined Benefit Scheme § the employee's contribution rates are not defined and the amount of benefits a member can obtain is based on a formula with reference to his age, years of services, final average salary etc.

The formulae could be defined as following:

$$M_I = M_S \% r_i'$$

M_I - the annual retirement payment that a staff may receive

M_S - the base quota which is decided by the enterprise's economic profit for the current year

r_i' - personal coefficient, determined by one's post, skill, performance, responsibility, age, years of services, and etc.

With this model, it is easy to set up individual accounts and to implement the policy. It also works well in attracting and retaining human resources. On the other hand, an elaborate human resource policy is required as a supporting measure.

Case Study of a Sample FIC in Shanghai

The sample FIC (designated "Company S", hereinafter) is a Sino-American pharmaceutical company, which entered China 10 years ago. In Shanghai, it employed about 900 local staff who occupied the posts of supervisor, manager, assistant, clerk and worker. The four parts of PSEI fund sources corresponding to Company S are:

I. The monthly salary of supervisors, managers and assistants exceeds 300% of the LAS. Therefore, these employees can benefit from PSEI.

II. Company S paid the staff 17 months' salary every year. Therefore, 25.5% of everyone's 5 months' salary can be drawn into the PSEI fund.

III. The interest income of the PSEI fund should be calculated by the social security interest rate (SSIR).

IV. The Department of Human Resource of Company S provided some important information: the abnormally-leaving rate is 13% and the staff's age structure remains almost the same after recruitment.

The prediction involves timing factors. For the past period, the economic and salary growth information could be obtained from various statistical yearbooks. For the future period, some assumptions are necessary. Those assumptions are made according to analyses by local authorities. Table 1 lists all the information and assumptions about the economic and salary growth status.

Table 1. Economic and Salary Growth Information and Assumption

Period	GDP Increase	LAS Increase Rate (%)*	SSIR (Year %)**	Average Salary Increase Rate of Company S (%)***
1992-1995	Higher speed	10	12	25
1996-2000	High speed	8	7	10
2001-2010	Low speed	5	6	6

The result of regression analysis for the relationship
Between salary and age of Company S □
$S = \alpha + \beta \times AGE$ ($\alpha = 290$, $\beta = 19.6$) {through salary data from Company S }

*: Source is from Shanghai Statistical Yearbook.
**: Source is from SIB Information Center.
***: Source is from Human Resource Department of Company S.

The results of empirical study are shown in tables 2 and 3. The calculation is based on PSEI pattern 2 (Defined Benefit Program), and the staffs' personal PSEI accounts are divided by five ranges with sex and age respectively:

Table 2. Accumulative PSEI fund of Company S RMB ×10,000 Yuan

Year	Source of PSEI Fund				Personal PSEI Account*	Accumulative Left Over**	On-going Payment for Retired Staff	Total Amount of PSEI Fund (this year end)***
	I	II	III	IV				
1998	68.7	280.0	53.1	83.2	401.8	800.3	2.8	1181.9
1999	92.6	324.2	79.8	95.8	496.7	896.1	29.2	1649.4
2000	124.6	375.1	111.3	110.8	610.9	1006.9	0	2260.3
2001	153.7	414.8	140.2	120.4	708.7	1127.4	23.9	2945.1
2002	188.6	458.6	182.3	136.3	829.5	1263.7	45.4	3729.2
2003	234.5	506.7	230.8	155.2	971.9	1419.0	34.3	4666.9
2004	294.8	559.6	288.9	177.9	1143.2	1596.9	64.0	5746.1
2005	366.7	617.8	355.8	204.2	1340.2	1801.1	219.1	6867.2
2006	452.1	681.8	425.6	234.5	1559.5	2035.6	70.6	8356.1
2007	552.0	752.2	517.9	268.9	1822.1	2304.5	142.6	10035.7
2008	664.9	829.7	622.1	307.9	2116.7	2612.4	98.5	12053.9
2009	794.2	914.9	747.1	352.0	2456.1	2964.4	219.2	14290.8
2010	942.3	1008.6	885.7	401.8	2836.6	3366.2	316.0	16811.5

*: Personal PSEI account is sum of Source I, II, and III.

**: The fund accumulates from each year abnormally leaving staffs' PSEI payment (Source IV). For example, 1998 left over = 1997 left over + 83.2.

***: Total Amount of PSEI fund = Personal PSEI Account + Accumulative Left Over – On-going payment for retired staff.

Table 3. Retirement payment for sample staff of Company S (RMB Yuan)

Sex	Year of Birth	Position	Salary in 1998	Year of Retirement	Predicted Salary when Retired	Personal Account from BEI & CSEI	Personal Account from PSEI	Monthly Payment After Retired	Substitution Rate
M	1944	Worker	2935	2004	4013	66171	46553	939	0.23
M	1963	Worker	2519	2023	8488	499940	346938	7057	0.83
M	1943	Manager	5939	2003	7506	58297	165854	1868	0.25
M	1962	Manager	4050	2022	12720	508332	859976	11403	0.90
M	1945	Clerk	3665	2005	5294	81906	94016	1466	0.28
M	1962	Clerk	2900	2022	9341	497348	413655	7592	0.81
M	1943	Assistant	4248	2003	5401	58297	91602	1249	0.23
M	1962	Assistant	4077	2022	12800	508332	870881	11493	0.90
M	1942	Supervisor	9350	2002	11067	48012	260180	2568	0.23
M	1959	Supervisor	11610	2019	31608	398348	3021687	28500	0.90
FM	1953	Worker	2236	2008	3988	95334	63308	1322	0.33
FM	1968	Worker	2109	2023	7247	428666	284661	5944	0.82
FM	1944	Manager	7162	1999	6826	22275	86359	905	0.13
FM	1968	Manager	5647	2023	17955	548607	1634971	18196	1.01
FM	1946	Clerk	3612	2001	4067	38642	42158	673	0.17
FM	1968	Clerk	3600	2023	11760	548607	739795	10737	0.91
FM	1946	Assistant	4430	2001	4973	38642	66108	873	0.18
FM	1968	Assistant	5000	2023	15997	548607	1352025	15839	0.99
FM	1950	Supervisor	8500	2005	12055	81906	392438	3953	0.33

Conclusion

Because the income of Chinese staff in FICs has been much higher than the average salary of local staff and workers, most of FICs have accumulated some surplus fund after paying the common endowment insurance premium since the compulsory social security system was put into execution in China. Aiming at helping the FIC's staff fully enjoy the welfare available to them, and inspire their working enthusiasm, the company must design a scientific and rational PSEI program and its supporting measures according to the accumulation and payment of the PSEI fund. The program should afford the endowment annuity payment during the practicing period regardless of the fluctuation of the FIC's economic profit. We have designed the program and tried it in a practice case. It has been proved that this program meets the basic needs of the requirement stated above. However, further improvement is needed for its broader application. In fact, some of the parameters are hard to predict as a constant for a prolonged period of time. For instance, the performance of the company is likely to vary from time to time. Therefore, yearly adjustment is necessary for the more accurate application of the program.

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