Raising Equity in Health Insurance Contributions

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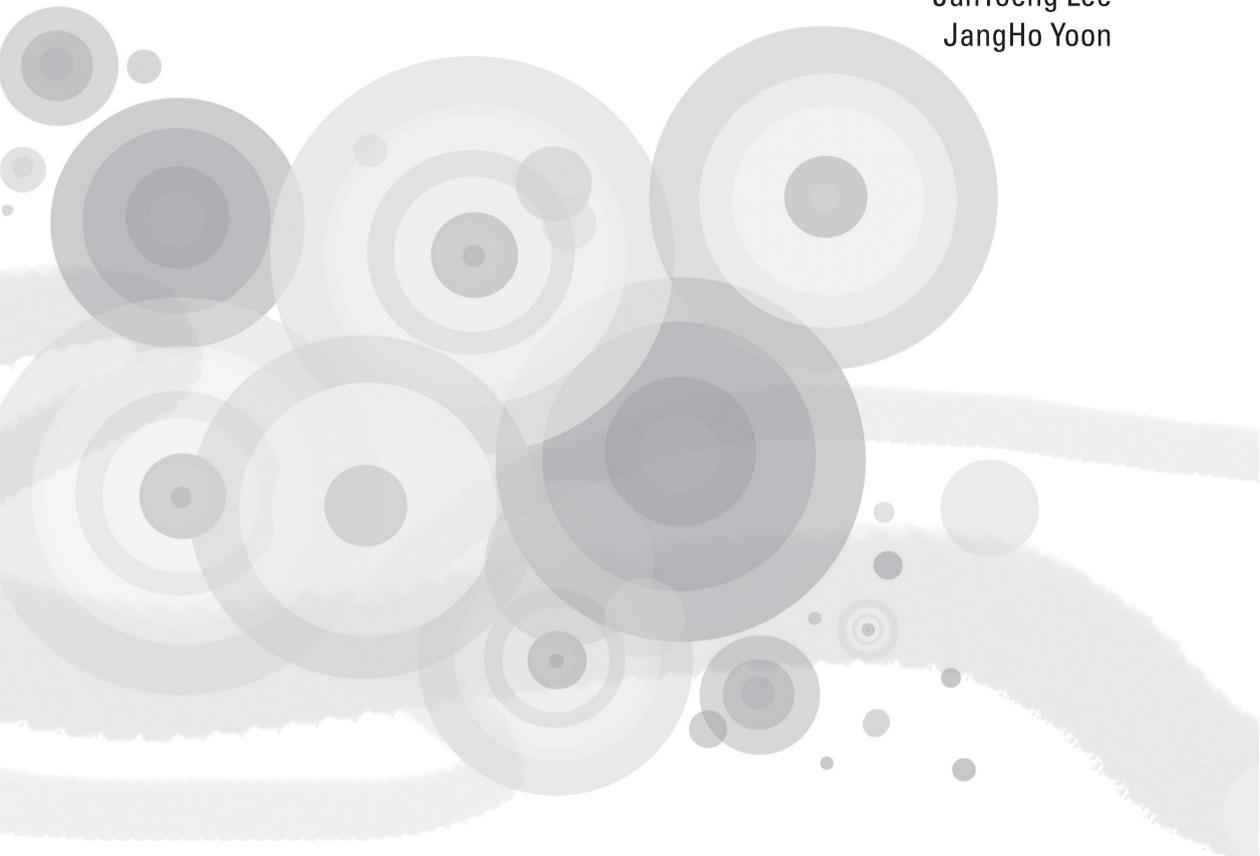
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Introduction

1. Background and Purpose

A. Background

The National Health Insurance's expenditure reached approximately 34 trillion won in 2010. According to the estimates by the Korea Institute for Health and Social Affairs, the national health insurance budget is projected to exceed 80 trillion won by the year 2020. Ensuring equity in insurance contribution burden therefore is likely to become more important than ever. However, controversy surrounding the current insurance contribution scheme continues. Divided between two categories of the insured - employees and the self-employed, the scheme employs a different set of criteria for determining premiums and ability to pay for each category of the insured. Each year, more than 2.5 million households change their eligibility status from "employee" to "self-employed" or vice versa. And every time their eligibility changes, they may have to pay different amount of premiums because premiums are calculated according to the criteria in the new category and not according to their ability to pay. At a time when the National Health Insurance budget is soaring, this dual-structured contribution scheme is no longer sustainable, and implementation of a single contribution system is urgent.

B. Purpose

In 2000, the multi-payer health insurance system was integrated into a single payer system, but 11 years later, premium calculation remains different between employees and the self-employed. During this period, nearly 10 official or unofficial studies have been conducted on the subject, but they have all failed to come up with a single contribution scheme, partly due to study limitations and partly due to immature environment for implementation. Wages and salaries of company workers are well reported, so it is relatively easy to impose premiums proportional to their income levels. On the other hand, in the case of self-employed people composed of income earners from self-employment, temporary workers, dayworkers and non-regular workers whose income records are not effectively tracked, it is not easy to impose premiums according to their ability to pay. Moreover, it is very difficult to ensure equitable treatment between the two categories of the insured. However, Korea is in a situation where it can no longer delay the implementation of a single insurance contribution scheme. With insurance funding soaring, it is urgent to develop a scheme that equally treats employees and the self-employed.

Reflecting these circumstances, this study aims to develop a nationally uniform insurance contribution scheme. It will first identify problems involved in the current contribution scheme and seek ways to improve it to the extent applicable, with a view to eventually achieving a single contribution scheme. To ensure public acceptance, the study will first explore models

containing short-term improvements. If it is difficult to immediately implement the short-term models, longer-term models will also be presented to set Korea on a path to the right health care system.

Therefore, with sustainability of health insurance in mind, the study aims to develop a single contribution scheme suitable for the integrated insurance program by addressing the problems of the current scheme.

2. Content and Methodology

A. Content

The study will contain the following: It will first review the historical development of insurance contributions, from the first integration in 1998 to the present model, and studies conducted on the subject to derive implications for new directions.

The second focus will be on assessing the current contribution scheme system, including assessment on the appropriateness of income as the basis for determining premiums of employees. In the case of the self-employed, the two-tiered contribution setting based on 5 million won in taxable income will be reviewed, and then ways to address the problem involved in the use of property and vehicle twice will be explored. Possibility of implementing an income-based single contribution scheme will be studied, and if the implementation of such a scheme is not immediately feasible, a longer-term framework will be explored.

Equity issue is being raised about the current contribution scheme in which criteria involving cost sharing, contribution scope and ability to pay vary between employees and the self-employed. Dependent eligibility requirements are different between the two groups, and the contribution calculation itself is also complex, making it difficult to deal with complaints of the insured. Moreover, each category of the insured uses different premium factors, and premiums payable change significantly when a person switches eligibility from one category to another. This study, therefore, seeks to address these problems through a new single contribution model.

As part of the effort to find an improved model, health care systems of other countries will be reviewed, focusing on a selected group of countries that have in place social insurance programs. These are Germany, the Netherlands, France, Japan, Switzerland and Austria.

This review will be followed by an assessment of the current contribution system and then discussion of ways of improving it. Based on the problems identified from the current system and experiences of other countries, a new contribution framework will be explored. Based on this, recommendations for near-term models as well as for a final single model will be provided. The near-term model will take a transitional form until we get to the final destination, for the purpose of soft landing in the transition to a single contribution scheme. That is, a broad road map for designing a future-oriented and integrated contribution scheme will be presented.

B. Methodology

This study employed regression analysis involving literature study, on-site investigation, expert meetings and review of other relevant data. First, literature study mainly involved review of the historical development of the insurance contribution system, studies previously conducted, and insurance contribution systems in other countries. We visited several countries to gather data and exchange opinions with health officials.

Second, to analyze a variety of problems relating to the current contribution scheme, we visited branches of the National Health Insurance Corporation four times to gather opinions from health officials on the related matters.

Third, we gathered opinions on various alternative models from expert groups. We validated the models several times together with the members of the Health Care Future Committee[1].

Fourth, we held policy forums to gather opinions on the contribution schemes.

Fifth, we compared living standards of employees and the self-employed and assessed the appropriateness of the premium factors used in each category of the insured using Korea Welfare Panel Study's 2009 survey data.

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1) About 26 members (including the chairperson) worked in the Committee from March to September 2011 to draw mid- to long-term health care directions in Korea.
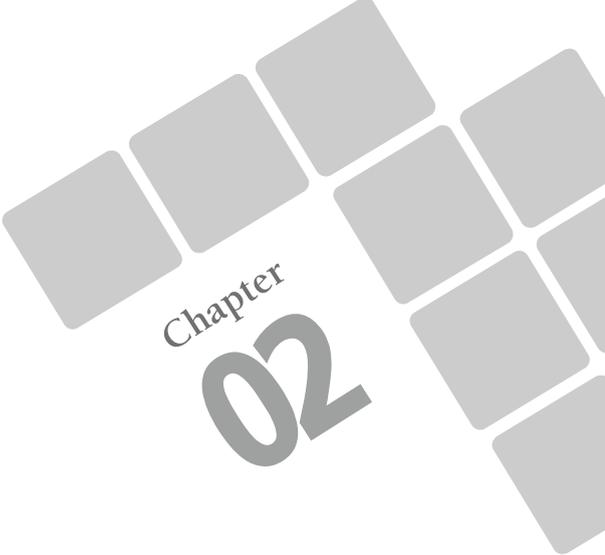
Studies on Insurance Contribution Schemes

Chapter 2
Studies on Insurance Contribution Schemes

Since the integration of the national health insurance in 1998, nearly nine studies have been conducted in relation to insurance contribution systems.

Today's integrated insurance contribution scheme for the self-employed has its roots in the study by Cha Heung Bong et al. (1998). In the study, Cha tackled the basic premium issue and made the model more sophisticated by sub-dividing contribution criteria based on 5 million won. Cha further sub-divided levy grades for income, property and vehicle, and developed a calculation model for the self-employed for temporary use until contribution criteria between employees and the self-employed were fully integrated. However, the model did not fix the problems concerning unavailability of income data from self-employed people, inequitable contribution burden between employees and the self-employed, and dependent coverage.

The first study aimed at creating a uniform set of criteria across employees and the self-employed came from Roh In Cheol et al. (1999). In the study, Roh presented several options, including use of estimated income in premium calculation, to develop a calculation model based on income only for both categories of the insured. While income seemed to be the most ideal criterion

for determining premiums, Roh admitted that it would be still difficult to apply the method in Korea, due to so many sources of income and the low rate of income data collection from self-employed people. Yet, presenting a model that accesses and captures income of self-employed people using various methods, (such as reported income, taxable income, estimated income, income reported to the National Pension, income captured from on-site investigation, or average income per business category), Roh pointed out that it would be difficult to use any of those types of income as the basis for premium calculation, and if any such model were implemented, it may amplify acceptance or equity issues.

After the second round of health insurance integration between employees and the self-employed in 2000, efforts to develop a more consolidated insurance contribution system suitable for complete health insurance integration, such as fiscal integration, continued. Under the assumption that existing premium calculation somewhat reflected each household's ability to pay and income level, Choi Byeong Ho et al. (2001) came up with a new model that levied contributions based on "standard income." He also developed an equity factor as a means to adjust premiums in a balanced manner for more equitable medical cost sharing between employees and the self-employed. The standard income-based calculation model maintains the same premium factors previously used for each household. These factors are converted into standard points and then combined points become what is known as "standard income." This gross point is again multiplied by monetary value (premium) per point to come to

the amount of premium per household.

Whereas only assessed income was converted into a standard point in previous models, taxable income, property and vehicle were all converted into standard points per grade in this new model. Of course, standard income does not mean absolute income earned by each household; it is a relative score indicating each household's ability to pay premiums, measured by direct and indirect indicators such as taxable income, property and vehicle. This method is understood as a more upgraded one compared to earlier models in the sense that it consistently measures ability to pay according to standard points of all indicators and that it simplified the method for calculating premiums per household.

However, fiscal integration between employees and the self-employed was postponed once again due to criticism that standard income and equity factor were not enough to fully resolve the contribution equity problem between employees and the self-employed.

Baek Wun Gook and Kim Jin Soo (2002) suggested that the different eligibility and collection units between the two categories of the insured be centralized as household unit and that government subsidies for self-employed people and employer contributions for employees be switched to government's or company's contributions toward the overall NHI, which would comprise 50% of total health insurance funding. The aim was to unify insurance contribution models per household.

However, this "income and property"- based single contribution model, was not implemented. due to difficult applicability and anticipated resistance: the model would not only bring fundamental

changes to eligibility and collection mechanisms as well as the funding mechanism, but it would also have to impose premiums proportional to property on workplace-based insured persons. Inequitable premium calculation was another issue because earned income, relatively more transparent than business income, would be subject to the same proportional levy method. As a result, development of a single insurance contribution scheme became a long-term task.

Cha Heung Bong et al. (2004) presented ways to address the issues involving the coverage for dependents and the standard points system of the existing calculation in the short term along with a longer-term model that would integrate the complex economic participation rates, gender/age points and vehicle contributions into basic premium. This fifth insurance contribution study involved addressing the assessed income-based calculation and introducing basic premium for both employees and the self-employed; calculating premiums based on income and property; and imposing premiums on global income. The short-term solution suggested by the study was considered to be effective and partially put into practice, but implementation of the longer-term solution remains unclear.

The study by Lee Yong Gap, Gong Gyeong Yeol et al. (2006) is not aimed at improving the contribution system in the short run; instead, it sets a contribution road map. In the study, the primary premium factor was limited to income, and the model was designed to be consistent with the policy aimed at improving the method and transparency of taxation. Contribution unit was changed from household unit to individual person unit with

premiums summed up at the household level to avoid "free riders" and to enhance social solidarity. Notably, the study suggests use of transfer income as a source of funding for the health insurance. The premium calculation model presented in the study consists of premium proportional to income and basic premium. Transfer income chosen by the study was expected to play the function of property-related premium, judging that in reality transfer income is used to accumulate wealth.

As a short-term solution, Shin Young Seok et al. (2008) suggested simplifying the contribution formula for the self-employed by centralizing the 5 million won criterion and using property and vehicle just once. In the longer-term, Shin insisted on introducing a single contribution scheme based on basic premium and income. Shin suggested use of flat-rate premium per income level and per person for employees; premium according to income only for less privileged people; and only basic premium for people with no income. He also suggested removing property and vehicle from the calculation. The precondition was transferring over 80% of all residents, including businesses hiring one or more workers, into the category of employees before implementing an integrated contribution scheme. Shin argued that income should include all types of income, including real estate capital gain, financial income, pension benefits, rental income and inheritance/gift. The study proved feasibility through simulation and accordingly, the government has already institutionalized part of the model or plans to further institutionalize it in 2012. As a result, contribution calculation for the self-employed became somewhat streamlined.

The government also announced a plan to impose premiums on other income sources, in addition to wage income, to raise equity. Yet in a situation where the rate of insured employees remains at 66% as of 2011, achieving 80% employee enrollment seems a long way off and implementing a single contribution scheme in a short period of time is not likely to be easy.

The R&D Business Foundation of Seoul National University came to a similar conclusion. The Group suggested imposing premiums on employed workers for all income sources as a way to simplify or standardize the insurance contribution method. The Group also suggested not granting dependent coverage to those who have pension benefits or possess wealth above a certain level. Removal of the 5 million won criterion, removal of vehicle premium and introduction of basic premium are the same as the suggestions made by Shin (2008).

⟨Table 2-1⟩ Studies relating to insurance contribution schemes

	Content	Limitations
Cha Heung Bong et al. (1998)	Improved basic premium issue and designed a more sophisticated model by introducing 5 million won (taxable income) criterion. Further broke down levy grades for income, property and vehicle. Developed a transitional model for the self-employed for use until full integration between employees and self-employed is implemented	Difficulty in capturing income data of the self-employed, inequitable burden between employees and the self-employed, and the issue of the coverage for dependents
Roh In Cheol et al. (1999)	Presenting a model that accesses and captures income of self-employed people using various methods, (such as reported income, taxable income, estimated income, income reported to the National Pension, income captured from on-site investigation, or average income per business category), Roh pointed out that	Failed to offer a single contribution model

	Content	Limitations
	it would be difficult to use any of those types of income as the basis for premium calculation, and if any such model is implemented, it may amplify acceptance or equity issues.	
Choi Byeong Ho et al. (2001)	Developed a new "standard income"-based model and an equity factor as a means to adjust premiums in a balanced manner for more equitable medical cost sharing between employees and the self-employed.	Due to criticism that it failed to fully address equity between employees and the self-employed, fiscal integration between the two was postponed again.
Baek Wun Gook· Kim Jin Soo (2002)	Suggested switching government subsidies for the self-employed and employer's share to government's or company's contributions toward the overall NHI, which would comprise 50% of total health insurance funding. The aim was to unify insurance contribution models per household.	The model would not only bring fundamental changes to the funding mechanism, but it would also have to impose premiums proportional to property on workplace-based insured persons.
Cha Heung Bong et al. (2004)	Suggested addressing assessed income-based premium; introducing basic premium for both employees and the self-employed; calculating premiums based on income and property; and imposing premiums on global income	Proposed short-term model was partly implemented, but implementation of a longer-term model remains unclear.
Lee Yong Gap, Gong Gyeong Yeol et al. (2006)	Not aimed at improving the contribution scheme in a short run. Presented a road map for contributions.	
Shin Young Seok et al. (2008)	Suggested introduction of a single contribution scheme based on basic premium and income. Suggested use of flat-rate premium per income level and per person for employees; use of only basic premium for people with no income; removal of property/vehicle premiums; and removal of the 5 million won criterion for the self-employed.	In a situation where the rate of insured employees remains at 66% as of 2011, achieving 80% employee enrollment seems a long way off and implementing a single contribution scheme in a short period

	Content	Limitations
		of time is not likely to be easy.
SNU R&DB Foundatio n (2010)	Suggested premiums on all income sources for employees; not granting dependent coverage to people with income (e.g. pensions) above a certain level; and removal of the 5 million criterion for the self-employed.	Similar limitations as the study by Shin Young Seok et al. (2008)
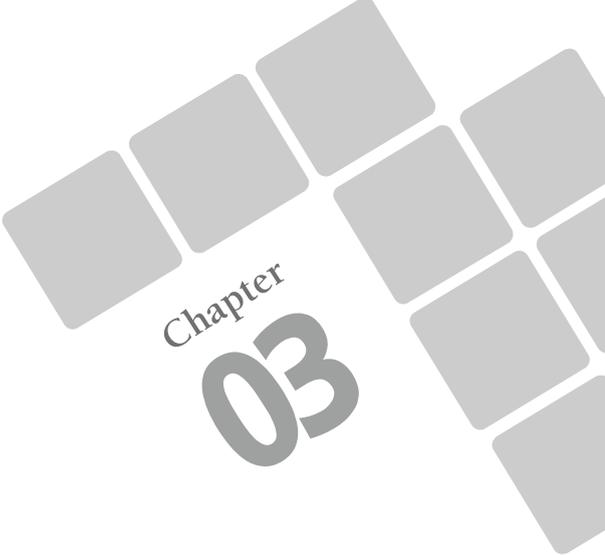
Contribution Schemes and Funding Sources in Other Countries

Chapter 3

Contribution Schemes and Funding Sources in Other Countries

1. Germany

Germany charges a flat contribution rate of 15.5% on eligible gross income.

Employer contributes 7.3% and employee contributes 8.2% with employee paying additional 0.9% depending on his or her situations.

For mandatory members of health insurance, earned income, public pension benefits, retirement benefits (known as Versorgundbezüge) as well as other labor income[2] are subject to premium contribution.

For the voluntarily insured, contributions are determined based on their general economic capacity.

"General economic capacity" refers to all types of income that can be used to maintain everyday life regardless of taxes already paid.

Therefore, voluntarily insured members must pay additional premiums on all other sources of income - whether from assets or rental business.

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2) One-off pay for work done for a short period of time, not from formal employment.

Both mandatory and voluntary members pay premiums for up to 3,712.50 Euros per month as of 2011.

2. France

〈Table 3-1〉 Contribution rates per funding source

		Content		Percentage (%)
Premium	Employee	6.8% of gross salary (1991)→ 5.5% (1997)→ 0.85%(1998∼)*	3.4	54.5
	Employer	12.8% of gross salary (1998) → 13.1%(2010)	51.1	
Government	State subsidies	State compensation for losses in premiums		4.9
	General social contributions	Introduction of universal health insurance		34.6
	Earmarked tax for social security	Tobacco/alcohol consumption tax, pharmaceutical advertisement tax, automobile insurance tax, specific tax on the pharmaceutical industry, contribution for repayment of the social debt (CRDS)		4.1
Adjustment between Health Insurance Schemes				0.3
Other				1.6
Total				100

Source: French Ministry of Health (www.sante.gouv.fr)

☐ General social contributions (GSC)

○ GSC is 7.5% on earned income (income earned from work or operation of machines); 6.6% on pensions; 6.2% on replacement income such as unemployment benefits; 8.2% on property income; 7.5% on investment income; and 9.5% on gambling income.

○ The rate is reduced to 3.8% of earned income for low-income individuals exempted from income taxation, who represent almost half of French households (Chevreul, K. et al., 2010: 67).

○ Contributions for earned income and replacement income are collected by the social security agency, while contributions for property income, investment income and gambling income are collected by the tax office.

○ GSC revenue collected is used to cover family allowances (1.1%) and old age pensions (1.3%). Health insurance receives 5.1% of revenue collected from earned income, property income, investment income and gambling income, and social security receives 3.8% of GSC revenue.

☐ Earmarked tax

○ Earmarked tax for social security was introduced in 1967 to levy social security insurance contributions on automobile insurance premiums, taking into account automobile ownership and road traffic accidents.

○ A series of earmarked tax on alcohol consumption, tobacco consumption, and pharmaceutical advertisement was introduced in 1983.

○ In 1996, the special contribution program was introduced as a way to reduce social security debt (CRDS).

○ Social solidarity contribution: Social solidary contribution is levied on businesses with annual sales of over 5 million francs, collected twice a year based on the amount reported by businesses to the Autonomous National Organization of Industry and Trade (Organisation Autonome Nationale de l' Industrie et du Commerce: ORGANIC).

○ Social solidarity contribution, similar to GSC in nature, was in effect for 13 years between 1996 and January 2009 to secure fiscal soundness by solving the total accumulated social security debt and to maintain global competitiveness in the integrated EU market launched in 1999, and was later extended for five more years. Social solidarity contribution is levied on a broader categories of income than GSC, including disability pensions and unemployment benefits at a rate of 0.5%.

○ In 1983, "processed tobacco insurance premium" was introduced as a kind of earmarked tax at a rate of 5% of wholesale price of tobacco, with revenue fully used to finance general health insurance.

○ In 1987, tobacco consumption tax was raised with 6.39% of tax revenue used to finance general health insurance. In 1983, insurance premium on alcohol was introduced with full tax revenue used to finance general health schemes.

○ Recognizing that advertisement of pharmaceuticals can lead to over-consumption of drugs, the government introduced pharmaceutical advertising tax in 1983. The pharmaceutical

industry is required to contribute through a 1% tax on their annual turnover based on the cost for promotion of sales and provision of information of drugs covered by health insurance. If drug expenditures covered by public health insurance exceed 7.6 million Euros, additional 0.03% tax is levied.

○ Insurance companies are responsible for paying tax on automobile insurance premiums. This tax rate was set to 3% in 1967; 6% in 1979; 12% in 1982; and 15% since 1985. Some argue that auto insurance must be abolished because the purchase of auto insurance is compulsory for vehicle owners.

○ Pharmaceutical companies that develop original drugs must also pay contributions. If a pharmaceutical company that developed such a drug directly sells it to drug stores, it must pay 2.5% tax on the drug's sales. Collection of this tax is the responsibility of the Central Social Security Agency (Agence Centrale des Organismes de Sécurité Sociale: ACOSS). All tax revenues are used to assist general insurance.

3. Austria

☐ Insurers have a substantial degree of autonomy in running insurance schemes in Austria. Different insurers use different income levels in premium calculation, and contribution rates vary between 6.4% and 9.1% of income.

○ While premium rates or out-of-packet payment rates vary among the insurers, on average, premiums are levied up to 3,750 Euros at a rate of 7.5% of eligible income. For office workers, employers pay 3.55% contributions and employees are responsible for 3.95% contributions. For manual workers, contributions are equally shared between employers and workers at 3.75%.

〈Table 3-2〉 Premium rates of health insurance (2005)

(Unit: %)

	Premium Rate	Employer Contribution	Employee Contribution
Office Workers	7.50	3.55	3.95
Manual Workers	7.50	3.75	3.75
Other1)	9.10	9.10 (paid in full by the self-employed)	
Public Servants	7.70	3.60	4.10
Farmers	7.50	3.70	3.80
Students	7.40	3.70 (Federal Government)	3.70 (Student)

Note: 1) Other mostly includes self-employed persons such as home aides and travel guides.
Source: Hofmarcher et al. 2006: 76.

4. Japan

☐ Funding sources of health insurance (for company employees)

○ Under the government-managed health insurance, premiums are determined by multiplying the premium rate by the standard monthly wage per standard wage grade.

- ○ The premium rate ranges from 6.6 to 9.1%.
- ○ The average premium rate is 8.2% of wages, shared equally between employers and employees.
- ○ Premium rates charged by insurance societies range from 3 to 10%, reflecting differences in each society's business and fiscal status.
- ○ Employers pay slightly higher contributions than the insured. The average premium rate in 2005 was 7.4% with employer contributing 4.1% and employee contributing 3.3%.
- ○ 8.2% applies to employees of small to medium-sized firms with fewer than 700 workers covered by the Japan Health Insurance Association.
- ○ The government-managed health insurance is funded through insurance premiums for 80.9% and government subsidies for 18.8%. The society-managed health insurance is funded through insurance premiums for 88.4% and government subsidies for 0.1%.
- ▢ Funding sources of the National Health Insurance (for the self-employed)
  - ○ Premiums for self-employed people consist of community-rate premium, income-proportional premium and asset-promotional premium, levied at the household level.
  - ○ National health insurance taxation. NHI tax is calculated as the sum of 65% of the total expected cost of health care deducted by the patient's total expected out-of-pocket payment and 50% of the contribution required under the Elderly Health Care Act deducted by expected state contribution and contribution for medical cost of the elderly

related to retired insured persons.

Gross taxable amount ={(total benefit expenditure of the insured person-out of pocket)x0.65} +{medical cost for the elderly-(out of pocket + medical cost for the retired insured)x0.5}

- ○ Based on the gross taxable amount, income-based amount, asset-based amount, per capita amount or flat per household amount are calculated based on the standard rates.
- ○ Health insurance premiums (for company employees) are equally shared between employer and employee.
- ○ Premiums are calculated by multiplying monthly salary and bonus amount of the insured person by the premium rate.

	Municipal National Health Insurance	National Health Insurance Association	Society-Managed Health Insurance	Japan Health Insurance Association	Medical Care for Latter-stage Elderly
The insured	The self-employed, non-employees, etc.	Self-employment	Large firms	Small to medium-sized firms	Individuals aged 75 or older
No. of insurers	1,788	165	1,497	1	47
No. of subscribers	3,597	352	3,034	3,471	1,346
Average income per subscriber	79	298	293	218	73.7
Medical cost per subscriber	28.2	16.7	12.6	14.5	86.3
Premium per subscriber	8.3	12.5	9.1	8.9	6.5
including employer's share			20.3	17.7	
State budget (A)	30,274	24,936	24	10,447	37,340
Total premiums (B) including employer's share	29,855	37,373	27,609 (61,590)	30,892 (61,437)	8,749

	Municipal National Health Insurance	National Health Insurance Association	Society-Managed Health Insurance	Japan Health Insurance Association	Medical Care for Latter-stage Elderly
Total budget (A+B) (based on 2010 budget)	60,129	62,309	27,633 (61,614)	41,339 (71,884)	46,089
% of state budget (A/(A+B))	50.35%	40.02%	0.09% (0.04%)	25.27% (17.00%)	81.02%
Total benefit amount	101,435	5,878	38,228	50,330	116,160
% of benefits covered by health insurance	29.85%	49.95%	0.06%	20.76%	32.15%

Source: Ministry of Health, Labor and Welfare, October 2010

5. Switzerland

☐ Health insurance scheme in Switzerland consists of basic compulsory health insurance, social insurance that requires specific categories or situations (accident, disability, for instance) and supplementary health insurance, purchased on a voluntary basis for supplementary coverage.

○ Individuals can choose insurance and can change their insurance company twice a year.

○ Insurance companies compete over premiums.

○ Out-of-pocket payment rates vary among individual insurance companies.

○ Under the basic insurance, 300 Swiss francs must be paid in premium, but one can purchase insurance at lower premiums if he or she chooses out-of-pocket payment.

○ The health insurance offers a bonus system in which the insured are entitled to additional premium discount each

year if they do not use benefits package at all.

○ Health insurance is basically purchased individually, and there is no dependent concept.

○ Premiums vary depending on the cantons and insurers, but benefits coverage is uniform.

☐ Premium collection by insurance scheme

○ Compulsory health insurance: Insurance companies are not allowed to make profits from their compulsory health insurance activities, and residents have a free choice of insurance provider, and insurance companies offering compulsory health insurance are not allowed for any reason to refuse an individual's application for a compulsory health insurance policy. The insurance companies compete based on the level of the premium, but they are not allowed to complete based on benefits offered.

－ Insurance companies calculate premiums based on estimates of health care expenditures in a region. These premiums are audited annually by the Federal Office for Social Insurance before they are introduced. Cantons have a right to access information held by the insurance companies about the calculation of these premiums.

○ Supplementary health insurance: In addition to the compulsory health insurance, residents can purchase supplementary health insurance policies. About a quarter of the population has supplementary health insurance. Insurance companies offering compulsory health insurance are allowed to make profits through supplementary health insurance.

- Unlike the compulsory health insurance policies in which premiums are community rated, supplementary health insurance premiums are risk-related.
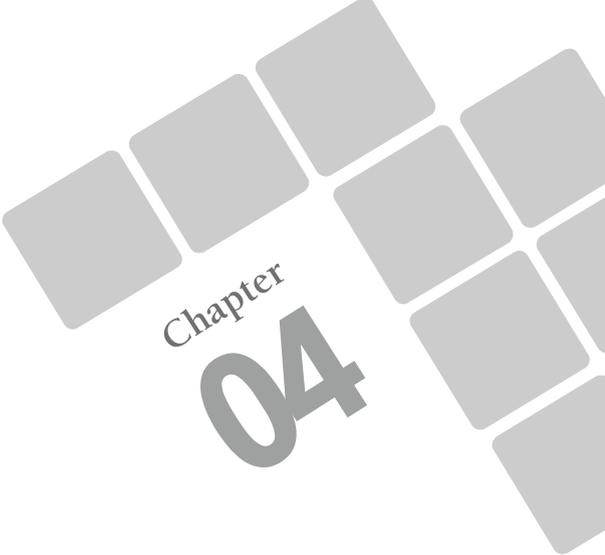
Current State and Problems of the Insurance Contribution Scheme

Chapter 4

Current State and Problems of the Insurance Contribution Scheme

1. Current state

A. Financing structure

Health insurance finance comes from premiums paid by the insured and government subsidies (including tobacco contribution). Under the National Health Insurance Act, the government is required to contribute an amount equivalent to 14% of total expected premium revenue to the National Health Insurance Corporation from its annual budget each year, and Minister for Health and Welfare is required to transfer a further 6% of total expected premium revenue to the National Health Insurance Corporation from within 65% of the Health Promotion Fund.

Premiums are contributed by the insured persons, employers and the government.[3] People enrolled in the NHI include employed workers, employers, and the self-employed. Employers include business owners, heads of organizations and founders of private schools.

Premiums are paid in full by the self-employed, while premiums

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3) The three-party cost sharing structure is due to the fact that even if the government is not employer of private school teachers, it bears a certain share of contribution on behalf of teachers.

for employees are equally shared between employer and employee. In the case of teachers, 50% of premiums is paid by teachers, 30% by employer and 20% by the government, respectively.

As of 2010, approximately 48,907,000 people are covered by the NHI program, an increase of about 3 million people since the integration of the health insurance funds in 2000. Of the population covered, approximately 66.2% are company employees and the remaining 33.8% are the self-employed. At the time of the health insurance integration, more self-employed people were insured than company employees at 51.2% enrollment. After firms with less than five workers were transferred to the employee category, the number of insured employees increased by about 10 million over the past 10 years, and the number of insured self-employed people decreased by about 7 million during the same period.

⟨Table 4-1⟩ Population covered by NHI

(Unit: Thousand persons, %)

		Dec. '00		Dec. '10		Change
Total		45,896	100.0	48,907	100.0	3,011
Employees (including dependents)	Sub-Total	22,404	48.8	32,384	66.2	9,980
	Insured employee	7,268		12,764		5,496
	Dependent	15,136		19,620		4,484
	Dependency rate (No. of persons)	2.08		1.54		△0.54
Self-employed	Sub-Total	23,492	51.2	16,523	33.8	△6,969
	Household head	8,215		7,940		△275
	Household member	15,277		9,481		△5,796

B. Premium calculation methods

The premium calculation structure is different between employees and the self-employed. And each category of the insured uses different criteria and calculation methods. Cost sharing and upper and lower thresholds on contributions are also different. As of 2011, employees are required to contribute 5.64% of wages and salaries (2.82% of which is paid by employees themselves) as premium. Premiums of the self-employed are calculated by multiplying 165.4 against given points. The premium rate is projected to rise 2.8% to 5.8% in 2012.

〈Table 4-2〉 Current insurance contribution scheme (2011)

	Employees	Self-employed
Criteria (premium factors)	Monthly wage * Private business employers: Rental and business income	Contribution points - Household earning more than 5 million won: Income, property, vehicle - Household earning less than 5 million won: Living standards, participation in economic activities, property, vehicle
Premium Calculation	Monthly wage × Fixed rate of 5.64%	Contribution point × Monetary value per point (165.4 won)
Lower/Upper Threshold	Monthly wage: 0.28 to 78.10 million won	20 ~12,680 points
Minimum/Maximum Premium (monthly)	15,780~4,404,840 won (Employee's share: 7,890~2,202,420 won)	3,300~2,097,270 won
Contribution Sharing	Employer: 50% Employee: 50%	100% by individual persons

Note: 1) Income, property, living standards and participation in economic activities are taken into account in the calculation.
　　2) Contribution share of the insured person, excluding employer's share

1) Premium calculation for employees

Insurance premiums for employees are calculated based on the remunerations paid to employees for work done for a certain period of time. Remunerations include salaries, pays, wages, benefits and other similar money and valuables employees receive in return for their work done, excluding non-taxable earned income as defined in items i, k and m in Article 12 Section 4 of the Income Tax Act, and other reimbursable items.

Based on these remunerations, premiums are determined by multiplying a fixed premium rate. Average monthly wage has lower and upper thresholds: minimum 280,000 won and maximum 78.10 million won. The premium rate in 2011 is 5.64%.

2) Premium calculation for the self-employed

Income, property, living standards, and participation in economic activities are first used to determine contribution points of each self-employed person. These points are then multiplied by monetary value per point to determine premium. Contribution points consist of 100 grades.

The figure below shows the overall premium calculation flow for the self-employed, but the detailed calculation procedure is quite complex.

［Figure 4-1］ Premium calculation for the self-employed
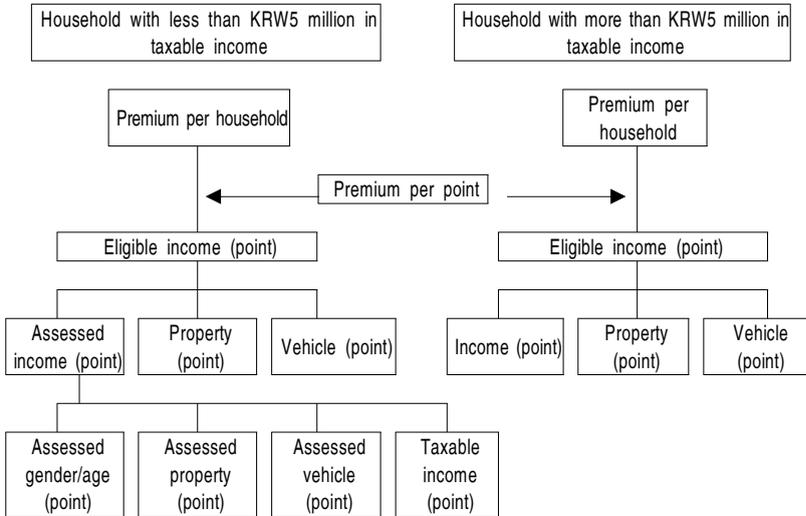
Income point is based on global income and calculated differently between households earning more than 5 million won in taxable income (approximately 81.4% of all self-employed persons) and other households earning less than 5 million won in taxable income (approximately 18.6% of all self-employed persons)[4]. Households earning more than 5 million won are given income points according to the criteria for grade 70. Households earning less than 5 million won or with no income records are given income points based on their living standards and the rate of participation in economic activities. Property

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4) Of global income, earned income, pension benefits and farmland income are subject to a 20% assessment rate.

and vehicle are classified into grade 50 and grade 7, and assigned given points regardless of the 5 million won baseline.

〈Table 4-3〉 Premium calculation criteria for the self-employed

		Less than KRW5 million in income	More than KRW5 million in income	
Living standards and participation in economic activities (assessed income)	Gender/Age	Bracket 4 [(1.4~6.6 points)× No. of persons]	* Taxable income	Grade 70 (380~9104 points)
	Property	Bracket 7 [(1.8~12.7 points)]		
	Vehicle	Bracket 7 [(3.0~21.3 points)× No. of vehicles]		
	Income	1~10 points (1 point per 500,000 won)		
Property		Grade 50 (22~1,475 points)	Property	Grade 50 (22~1,475 points)
Vehicle		Grade 7 (18~217 points)	Vehicle	Grade 7 (18~217 points)
Calculated Premium		(Assessed income + Property + Vehicle)×165.4 won	(Taxable income + Property + Vehicle)×165.4 won	
No. of Households ('11.7)		6,369,000 households (81.4%)	1,452,000 households (18.6%)	

2. Problems involved in the current insurance contribution system

The dual structure of the calculation is the biggest problem. Moreover, premium calculation for the self-employed is further divided by taxable income of 5 million won. While fixed rates apply to employed workers based on their income earned, accurate income records of self-employed people are not available, so besides income, other factors such as property, vehicle, gender and age are taken into account in the calculation.

Inequitable contributions are the second problem, which is

mostly attributable to the dual structure of the calculation method. Most of the problems come from the differences in premium factors, dependent eligibility requirements, cost sharing structure and income calculation criteria between employees and self-employed people. Specific reasons are as follows:

① Different premium factors are used in calculation: Whereas earned income is used as the basis for calculating premium for employees, income of the self-employed is not clearly known and for this reason, multiple factors, such as global income (assessed income or taxable income) excluding required expenses, property, vehicle, gender and age are taken into account in the calculation. Although such calculation is intended to reflect the individual's ability to pay premium, it may seem disadvantageous to the insured person, because premium is determined by the premium factors and not by the actual ability to pay. Also in the case of the self-employed, gender and age cause premiums to increase in proportion to the family member size. Premiums for employees, on the other hand, are not affected by the number of household members.

② Difference in eligibility: In the corporate sector, only employees with income source are eligible for NHI coverage, and anyone who meets the income and eligibility requirements (dependent eligibility requirements[5]) can qualify for dependent coverage, exempted from contribution obligation. As existence

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5) Dependent is "a person with no business licence registered and whose sum of business income and rental income from global income is 5 million won or less a year" in accordance with the provisions set forth in Article 1, paragraph 1, sub-paragraph 1 of the Income Tax Act.

of income of dependents of employees is determined by their business income and rental income only, anyone earning large financial income (interests or dividends) can qualify for dependent coverage. Inequality also exists between those employees who have financial income and others who don't. On the other hand, all household members of self-employed people gain NHI eligibility due to the inclusion of gender and age in the calculation criteria. As a result, even children with no ability to pay are paying premiums.

③ Difference in cost sharing: Employees who earn and use income pay premiums. Dependents of employees have no contribution obligation, but all household members of self-employed people bear contribution burden with joint liability among them.

④ Difference in income calculation criteria: Earned income is used as the basis for determining premium for employees. Actual amount of earned income is reflected without distortion in premium calculation. On the other hand, business income applied to the self-employed is income after deducting required expenses. Of global income of the self-employed, an assessment rate of 20% applies to earned income, pension benefits and farmland income.

⑤ Others: As only wages are taken into account in premium calculation for employees, inequality issue is raised between employees with large earnings from other sources (e.g. rental income, financial income) and other ordinary workers. Likewise, certain groups of people within the self-employed category suffer disadvantages. For instance, self-employed persons in special

occupations, such as insurance salespersons, home-school teachers, yogurt drink delivery persons, taxi cab owners and drivers[6] earn money in a very similar way to employed workers, but they are paying premiums based on business income.

The third problem is the seriously regressive nature of the calculation method. Premium calculation for employees has a weak income distribution function because fixed rates are used with lower and upper contribution thresholds in place, but it is not regressive. But the ratio of monthly premium to average monthly taxable income is seriously regressive to self-employed people. For example, a self-employed person with 6 million won in taxable income gets 380 contribution points for a given grade, and a self-employed person with 60 million won in taxable income gets 1,336 contribution points. The latter's income is 10 times higher, but contribution points are just 3.5 times higher.

Similarly, the points system on property is also designed regressively. For example, an individual holding 10 million in wealth won gets 66 points and an individual holding 100 million won in wealth gets 439 points. Even if wealth has increased 10 times, points have risen just 6.6 times.

The fourth problem lies in the highly complicated design of the calculation. Calculation for the self-employed is two-tiered by the 5 million won baseline and the calculation procedure

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6) Self-employed individuals hired by employers subject to withholding tax but who work under individual business licenses. They include home-school teachers, insurance salespersons, remicon rental service providers, salespersons, dispatch service providers, and homeworkers. About 1 million people are known to be in these occupations (Kukmin Ilbo, June 4, 2006).

is also complex. Premium per person cannot be calculated by applying the total score calculated for each premium factor to the standard income points table. Thus, it is difficult to create evidence data with which to convince people who demand premium adjustment after move-in or move-out of household member.

The fifth problem, which is probably the biggest difference between employees and the self-employed, is dependent eligibility requirements. A dependent is a person who relies on the income of an employed worker. One must satisfy income and eligibility requirements to quality for dependent coverage. Currently, a person who meets the dependent requirements set out in the "National Health Insurance Act, Enforcement Rule, Schedule 1," and who has no other remuneration or income is defined as a dependent, and a minor below 19 years of age is considered to have no remuneration or income. The definition of "a person with no remuneration or income" under the dependent eligibility criteria is a person with no business licence registered and whose sum of business income and rental income from global income as defined in Article 1, paragraph 1, sub-paragraph 1 of the Income Tax Act is 5 million won or less a year"[7].

Here also exists the equity problem. Among others, premium calculation for the self-employed is made on the basis of global income, thus interest income, dividend income, real estate income, business income, earned income, temporary property income,

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7) Dependent eligibility criteria No. 2002-35, Ministry of Health and Welfare (May 8, 2002)

pension benefits and other income are all subject to premium payment. On the other hand, income of dependents of insured employees is only determined by business income and rental income, so anyone with a large amount of financial income (from interests or dividends) can qualify for dependent coverage[8]. Whereas minors of self-employed people pay premiums according to contribution points related to living standards and participation in economic activities regardless of their income status, minors of employees are considered to have no income even if they do have large financial earnings.

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[8] The Amendment in December 2006 excludes persons with more than 5 million won in financial income from dependent coverage.
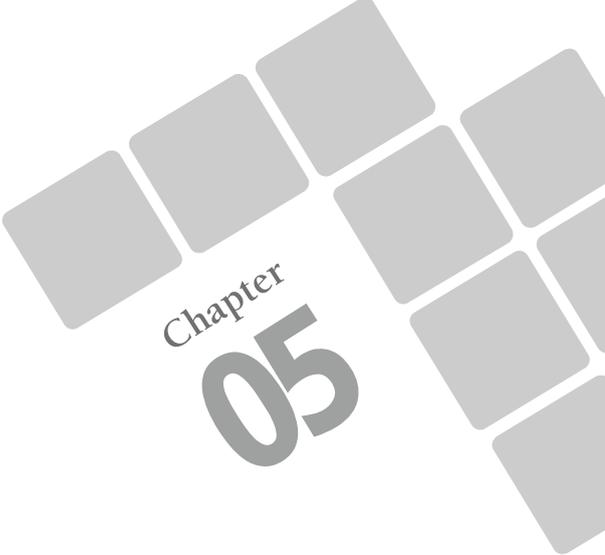
Comparison of Income and Living Conditions Between Employees and the Self-Employed

Chapter 5

Comparison of Income and Living Conditions Between Employees and the Self-Employed

The biggest problem of the current insurance contribution scheme is that employees and self-employed people bear contributions in a different way under a single insurer. This dual contribution structure comes from the difficulty in accurately capturing income from self employment. The National Tax Service finds it difficult to collect accurate records of income[9] from self-employed people, thus leading to inequitable contribution methods.

To resolve the many problems involved in the current insurance contribution scheme, there is a need to understand living conditions and income levels between the self-employed and employees, and based on this, assessment needs to be made as to whether the current contribution calculation method is reasonably fair.

In this regard, this chapter will focus on understanding living conditions and income levels of employees and the self-employed and assessing the appropriateness of the premium factors used in determining contributions. To achieve this goal, the Korea Welfare Panel Study data were used to compare income, assets, debts, and spending of employees and the self-employed. Based

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9) The income capture rate does not mean how much global income data is held the National Tax Service; it means how much the data represents actual income.

on the identified living conditions and income levels, factors affecting total income were identified and then the appropriateness of premium factors was assessed.

1. Data distribution

Korea Welfare Panel Study's third survey of households was used to compare income levels and living conditions between employees and the self-employed. Of the total 6,314 households surveyed, 5,953 households were analyzed, excluding households covered by the Medical Aid program. Employees comprised 65.8% (3,918 households) and the self-employed made up 34.2% (2,035 households). These ratios are similar to 66.2% employes and 33.8% self-employed enrolled in the NHI in 2010. In all analyses, household survey weights were assigned. Variables to be shown in the data distribution analyzed are, among others, income, property, vehicle and participation in economic activities that are used in the calculation of premiums for the self-employed, in addition to income-related spending and debt.

The average income of the overall population was approximately 38 million won. Of this, earned income accounted for the lion's share at approximately 24 million won, followed by business income at about 7 million won. Income on the side made up the smallest portion at about 330,000 won. Average spending was approximately 33 million won, comprising about 87% of average income. Average assets were about 255 million won, mostly from real estate (85%). In comparison, average debt was approximately 64 million won, accounting for 25%

of total assets. Average monetary value of vehicle was about 4 million won per household.

Based on the variables above, employee and self-employed households were classified into decile groups based on total income to assess living conditions of each group. Total income distribution of the 10 decile groups revealed the following in major categories of living conditions:

Income distribution, which is the most important factor in premium calculation, was found to be higher in employees than the self-employed between the first and eighth deciles. But in the 10th decile, income was higher in the self-employed. This suggests that high-income self-employed persons earn more money than employees and that income gap among self-employed people is wide between high-income and low-income groups.

In spending, the self-employed were spending more than employees between the first to seventh deciles. But in the ninth and 10th deciles, employees were spending more than the self-employed, showing the a contrast to income.

In assets, distribution varied between employees and the self-employed in each income decile. Between the low-income first and third decile groups and in high-income seventh to 10th decile groups, assets of the self-employed were higher than assets of employees. Assets of employees were larger only in the fourth through sixth decile groups. Asset gap was also wide among the self-employed.

With the exception of the 10th and 40th deciles, the self-employed had more debt than employees. In the 10th through 40th deciles, however, debt held by employees was 7 times and

6 times higher respectively compared to the self-employed. Debt gap was the widest in the 10th, 20th and 40th deciles.

Vehicle distribution showed a similar pattern to asset distribution. In the low-income first to third deciles and in the high-income 10th decile, vehicle price of the self-employed was higher. Among median income brackets, vehicle price of employees was higher.

2. Comparative analysis of statistics

A. Comparison of living conditions between employees and the self-employed

To analyze living conditions between employees and the self-employed, overall differences in living conditions were analyzed for the variables selected from the data distribution above. The analysis basically calculated statistical differences of average figures between the two populations and sample weights of the Welfare Panel were applied to the calculation.

1) Income and spending

In terms of total income, the gap between earned income and net business income, the major sources of income of employees and the self-employed, respectively, was compared, and income on the side, property income and other income were also analyzed.

In terms of total annual income per household, each employee

household earned 41.06 million won, about 7.64 million won more compared to 33.42 million won income per self-employed household, which is a statistically significant difference. When the earned income of employees and net business income of the self-employed were compared, earned income per employee was higher by about 7.26 million won than net business income per self-employed person, as in total income. Income on the side or property income was higher in the self-employed than in employees but not to the extent statistically significant. Other income earned each year was 790,000 won higher in employees than in the self-employed, contributing to the income gap between the two categories of the insured to some extent.

As in income, the total cost of living per employee was 4.4 million won higher than that per self-employed person at 35 million won vs. 30.60 million won, which was a significant difference. By sub-category, each employee spent 440,000 won more on food items and about 210,000 won more on health care than each self-employed person. On the other hand, each self-employed person spent about 280,000 won more on housing expenses than each employee, but this was not a significant difference. When measured by residual income (total income minus total cost of livings), residual income per employee was 6.06 million won, or 3.25 million won higher than residual income per self-employed person.

The share of earned income and business income in total household income was 66.8% among employees and 72% among the self-employed. This 5% difference is statistically significant. Based on this, premiums for the self-employed are imposed on

global income, whereas premiums for employees are imposed on earned income only. This raises the equity issue as the proportion of earned income in total household income of employees is low at 66.8%. Thus, premiums for employees need to be imposed on other sources of income also.

2) Assets and debts

Total assets per employee were 259.29 million won, or 12.61 million won more assets compared to total assets per self-employed person, but the different is not significant.

When compared by total debt, each self-employed person held average 73.24 million won in debt, or 13.99 million won more debt compared to 59.25 million won per employee. This difference is not significant from the statistical perspective.

3) Indicators of participation in economic activities

Based on the brackets of "living conditions and economic activities" used in the current NHI contribution scheme, eight groups were created based on gender and age[10]. Forms of

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10) Bracket-specific points table based on participation in economic activities

		Bracket 1	Bracket 2	Bracket 3	Bracket 4
Gender and Age	Male	Below 20 Over 65 (1.4)	60 ~ 65 (4.8)	20 ~ 30 50 ~ 60 (5.7)	30 ~ 50 (6.6)
	Female	Below 20 Over 65 (1.4)	60 ~ 65 (3.0)	25 ~ 30 50 ~ 60 (4.3)	20 ~ 25 30 ~ 50 (5.2)

participation in economic activities were divided into nine categories, such as permanent employment, temporary employment, day work, and employer.

The average family size showed a statistically significant difference at 2.9 per employee household and 3.0 per self-employed household. The family size measured by gender and age was slightly different between employees and the self-employed, and the difference itself was not statistically significant, either. Exceptionally, the number of female family members was higher among employee households in the 25-30 age group or in the 50-60 age group. The number was higher among self-employed households in the 20-25 age group or in the 30-50 age group, but the difference was small.

3. Relationship between earned income/business income (employees/self-employed) and total income

Relationship between earned income/business income and total income was analyzed. In income-based premium calculation, earned income is used as the basis for employees, and total income is used as the basis for self-employed people. For employees, other sources of income, other than earned income, are not taken into account. Thus, (1) the relationship between earned income/business income and total income was examined for all NHI enrollees, and then (2) an analysis was conducted

to see if variations would exist in such a relationship between employees and the self-employed. First, the log-log linear model below was analyzed.

$$\ln(\text{total income})_j = \alpha + \beta \cdot \ln\left(\frac{\text{earned income}}{\text{net business income}}\right)_j + \varepsilon_j \cdots (1)$$

In the formula (1) above, j is individual household and the predicted value of β measures the "elastic" relationship between earned income/net business income and total income. Thus, the predicated value of β measures by what percent total income will increase when earned income/business income increases or decreases by 1 percent. Sample weights of the Welfare Panel were applied to the calculation of the predicted value and White's robust standard errors were used.

〈Table 5-1〉 Relationship between total income and earned income/net business income

Variable	Predicted Value
ln (earned income/net business income)	0.593*** (0.10)
Intercept	3.490*** (0.84)
R-squared	0.5984
N	4,533

Note: Figures in the parentheses are standard errors.
 *p<0.05. **p<0.01. ***p<0.001.

As shown above, when earned income/business income increases by 1%, total income was projected to rise by 0.59%. In other words, it can be said that 1% of earned income/business

income and 0.59% of total income have a statistically significant correlation. Also as seen by the R-squared value of 60%, the simple model above seems quite convincing in predicting the relationship between earned income/business income and total income.

Next, to see whether the predicted value of the overall population in the table above varies between employees and the self-employed, the following analysis was conducted:

$$\ln(\text{total income})_j = \alpha + \beta \cdot \ln\left(\frac{\text{earned income}}{\text{net business income}}\right)_j +$$
$$\gamma \cdot \ln\left(\frac{\text{earned income}}{\text{net business income}}\right) \times \text{self} - \text{employed household}_j + \varepsilon_j$$
$$\cdots(2)$$

In the formula (2) above, "ɣ" is the interaction term of earned income/business income and self-employed household variables, whose predicted value measures whether the relationship between earned income/net business income and total income is different depending on the category of the insured.

〈Table 5-2〉 Relationship between total income and earned income/net business income by the insured

Variable	Predicted Value
ln (earned income/net business income)	0.591*** (0.10)
ln (earned income/net business income)× Self-employed household	-0.0139*** (0.0015)
Intercept	3.54*** (0.08)
R-squared	0.7872
N	4,533

*p<0.05. **p<0.01. ***p<0.001.

As shown in Table 5-13, the relationship between total income and earned income/net business income varied between employees and the self-employed. For employees, total income was projected to increase by 0.59% when earned income/business income rose by 1%. For the self-employed, 1% of earned income/business income and 0.58% of total income (= 0.59%-0.014%) had a statistically significant correlation. However, the difference between employees and the self-employed was small at about 0.014%.

4. Equity in the dual−structured premium calculation method

To assess whether insurance premiums are levied in an equitable manner, an analysis was conducted to determine whether (1) the factors used in the premium calculation for the self-employed reflect the "ability to contribute" to the NHI and (2) whether the degree of influence of these factors on the ability to contribute varies between employees and the self-employed. First, for this assessment, residual income (total income - total cost of living) as representing the ability to contribute to the NHI, and non-payment of premiums (yes = 1, no = 0) were used as dependent variables in the econometric model.

Second, factors used in the premium calculation for the self-employed were included as independent variables in order to analyze the correlation between these variables and the dependent variable the ability to contribute to the NHI. Such

an econometric model will help find variables used in premium calculation for the self-employed that are related to the ability of all enrollees to contribute to the NHI. If the variable X has no correlation with the ability to contribute to the NHI, use of the variable for the purpose of calculating premiums will not reflect reality.

Third, whether the correlation above is found from both groups of employees and the self-employed was analyzed. In the assessment earlier, statistically significant differences between employees and the self-employed were found in terms of income levels and living conditions, but the differences were not big in absolute terms. Thus, if the variable X is found to have a correlation with the ability to contribute to the NHI from both groups, it can be said that the variable X must be used in premium calculation regardless of the category of the insured so as to reflect reality.

To determine the interrelationship between variables used in premium calculation for the self-employed and the ability to contribute to the NHI, the following model was analyzed:

$$\text{Ability to contribute}_j$$
$$= \alpha \cdot \ln\left(\frac{\text{earned income}}{\text{net business income}}\right)_j + \beta \cdot \ln(\text{other income})_j + \gamma \cdot \ln(\text{total assets})_j + \delta \cdot \ln(\text{vehicle vaule})_j + \cdots (3)$$
$$\sum_i \eta \cdot \text{participation in economic activities} + \theta \cdot \text{Number of household members}_j + \varepsilon_j$$

The ability to contribute includes ln (residual income) above and premium non-payment history as dependent variables. Participation in economic activities is a vector that includes the variables based on the "8 brackets according to living conditions

and economic activities" (National Health Insurance Corporation, Research Paper 2008-03, Table IV-4). Based on gender and age, Male Bracket 2, Male Bracket 3, Male Bracket 4, Female Bracket 1, Female Bracket 2, Female Bracket 3, and Female Bracket 4 are included. Male Bracket 1 is used as a comparison category (omitted from the model).

Factors affecting residual income include earned income/net business income, other income, total assets, certain economic activity participation variables and the number of household members. As predicted, income, assets, participation in economic activities had a positive correlation with the ability to contribute using residual income, and the increase in the number of household members reduced the ability to contribute.

The probability of non-payment of premiums declined when earned income/net business income, other income, total assets, vehicle value and the rate of participation in economic activities increased, thereby increasing the ability to contribute to the NHI.

Factors affecting the ability to contribute to the NHI by employee households and self-employed households showed similar results as the overall population. No noticeable difference was found between the two.

〈Table 5-3〉 Factors affecting ability to contribute to the NHI: all enrollees

	ln (residual income)	Non-payment
ln (earned income/net business income)	1.128	-0.0150
	(0.081)**	(0.0061)*
ln (other income)	0.070	-0.0002
	(0.014)**	(0.0018)
ln (total assets)	0.179	-0.0167
	(0.034)**	(0.0049)**
ln (vehicle value)	-0.020	-0.0030
	(0.028)	(0.0034)
Male Bracket 2	0.33	0.0023
	(0.13)*	(0.0078)
Male Bracket 3	0.031	0.0216
	(0.075)	(0.0091)*
Male Bracket 4	0.15	0.008
	(0.10)	(0.011)
Female Bracket 1	0.007	0.0014
	(0.051)	(0.0068)
Female Bracket 2	0.31	-0.0210
	(0.14)*	(0.0078)**
Female Bracket 3	0.155	-0.0175
	(0.081)	(0.0089)*
Female Bracket 4	-0.014	0.0044
	(0.079)	(0.0075)
No. of household members	-0.186	-0.0074
	(0.044)**	(0.0049)
Intercept	-4.29	0.298
	(0.53)**	(0.053)**
R2	0.42	0.04
N	1,498	2,120

* $p < 0.05$; ** $p < 0.01$

⟨Table 5-4⟩ Factors affecting ability to contribute to the NHI: comparison between employees and the self-employed

	Employee		Self-employed	
	ln (residual income)	Non-payment	ln (residual income)	Non-payment
ln (earned income/net business income)	1.160	0.0009	1.05	-0.013
	(0.078)**	(0.0012)	(0.15)**	(0.013)
ln (other income)	0.075	0.0009	0.047	-0.002
	(0.017)**	(0.0008)	(0.029)	(0.005)
ln (total assets)	0.143	-0.0032	0.253	-0.040
	(0.039)**	(0.0023)	(0.060)**	(0.012)**
ln (vehicle value)	-0.019	0.0007	-0.035	-0.009
	(0.029)	(0.0005)	(0.072)	(0.011)
Male Bracket 2	0.491	-0.0004	-0.33	0.027
	(0.148)**	(0.0013)	(0.32)	(0.028)
Male Bracket 3	0.069	0.0019	-0.15	0.053
	(0.085)	(0.0022)	(0.17)	(0.025)*
Male Bracket 4	0.19	-0.0004	-0.10	0.018
	(0.13)	(0.0026)	(0.19)	(0.028)
Female Bracket 1	0.034	-0.0012	-0.08	0.006
	(0.054)	(0.0010)	(0.11)	(0.021)
Female Bracket 2	0.26	-0.0014	0.46	-0.051
	(0.17)	(0.0011)	(0.24)	(0.024)*
Female Bracket 3	0.132	-0.0019	0.36	-0.059
	(0.089)	(0.0015)	(0.20)	(0.030)*
Female Bracket 4	0.013	0.0012	-0.05	-0.031
	(0.089)	(0.0018)	(0.15)	(0.020)
No. of household members	-0.213	-0.0001	-0.083	0.020
	(0.049)**	(0.0006)	(0.092)	(0.015)
Intercept	-4.20	0.0169	-4.25	0.56
	(0.58)**	(0.0197)	(1.01)**	(0.11)**
R2	0.42	0.01	0.41	0.08
N	1,056	1,398	442	722

* p<0.05; **p<0.01

5. Study of models with improved equity

Analysis results derived so far support the legitimacy of the factors used in premium calculation for the self-employed to some extent. An analysis was conducted to see how equity of insurance contributions would change when a unified calculation method is adopted by the currently dual-structured calculation method (in an extreme case) by using the following model:

$$
\begin{aligned}
&\ln(\text{dependent variable})_j \\
&= \alpha \cdot \text{slef}-\text{employed}_j + \beta \cdot \ln\left(\frac{\text{earned income}}{\text{net business income}}\right)_j + \gamma \cdot \ln(\text{other income})_j + \delta \cdot \ln(\text{total assets})_j + \\
&\quad \eta \cdot \ln(\text{vehicle vaule})_j + \theta \cdot \sum \text{participation in economic activities}_j + \phi \cdot \text{number of household members}_j + \\
&\quad \varepsilon_j
\end{aligned}
\quad \cdots (4)
$$

In the formula (4) above, the predicted value of α measures whether a difference will exist in the ability to contribute to the NHI between employees and the self-employed if all factors currently used in the premium calculation for the self-employed are uniformly applied to the premium calculation for both employees and the self-employed.

⟨Table 5-5⟩ Changes in ability to contribute to the NHI - Scenario 1

	In (residual income)	Non-payment
Self-employed household	-0.105	0.0584
	(0.067)	(0.0093)**
In (earned income/net business income)	1.116	-0.0057
	(0.082)**	(0.0060)
In (other income)	0.069	0.0006
	(0.014)**	(0.0017)
In (total assets)	0.178	-0.0164
	(0.035)**	(0.0048)**
In (vehicle value)	-0.020	-0.0033
	(0.028)	(0.0034)
Male Bracket 2	0.331	0.0006
	(0.131)*	(0.0078)
Male Bracket 3	0.034	0.0181
	(0.075)	(0.0088)*
Male Bracket 4	0.145	0.0057
	(0.103)	(0.0113)
Female Bracket 1	0.006	0.0021
	(0.051)	(0.0067)
Female Bracket 2	0.311	-0.0203
	(0.140)*	(0.0080)*
Female Bracket 3	0.152	-0.0155
	(0.081)	(0.0087)
Female Bracket 4	-0.011	-0.0069
	(0.079)	(0.0071)
No. of household members	-0.183	0.0057
	(0.044)**	(0.0048)
Intercept	-4.163	0.2066
	(0.531)**	(0.0448)**
R2	0.42	0.07
N	1,498	2,120

* $p<0.05$;**$p<0.01$

As the predicted value of α shows, if the factors currently used in the premium calculation for the self-employed are

uniformly applied to both employees and the self-employed, the difference in the ability to contribute to the NHI based on residual income was predicted to disappear. However, the ability to contribute to the NHI based on non-payment history was predicted to be lower among the self-employed than employees.

 In addition, the following regression model was analyzed to determine whether the currently used variables are of help in ensuring the equity of the insurance contribution method. In this rather simple model, variables other than those for the self-employed and ln (earned income/net business income) were excluded. That way, it enables a drastic scenario where premiums are uniformly levied on employees and the self-employed by using earned income and net business income only.

$$\ln (\text{dependent variable})_j = \alpha \cdot \text{self} - \text{employed}_j + \beta \cdot \ln \left(\frac{\text{earned income}}{\text{net business income}} \right)_j + \varepsilon_j \cdots (5)$$

⟨Table 5-6⟩ Changes in ability to contribute to the NHI - Scenario 2

	ln (residual income)	Non-payment
Self-employed household	-0.232	0.081
	(0.054)**	(0.008)**
ln (earned income/net business income)	0.972	-0.006
	(0.031)**	(0.002)**
Intercept	-1.420	0.052
	(0.254)**	(0.017)**
R2	0.41	0.05
N	3,035	4,268

* p<0.05;**p<0.01

When only earned income and net business income are used, employees and the self-employed become treated in a more inequitable way in terms of premium calculation. This result, therefore, suggests that the factors currently used in the premium calculation are better positioned to improve the equity, compared to the method that uses earned income and business income only.

Although the two models point to different results, the result above justifies the need to strive to find additional factors to ensure more equity of the contribution method. For example, when region variables (such as Seoul and Jeolla) were included in the model (4), reflecting different living conditions in different regions, the difference in the ability to contribute to the NHI based on non-payment history somewhat narrowed.

〈Table 5-7〉 Changes in ability to contribute to the NHI when region variables are included

	In (residual income)	Non-payment
Self-employed household	-0.101	0.0572
	(0.067)	(0.0092)**
In (earned income/net business income)	1.117	-0.0058
	(0.083)**	(0.0061)
In (other income)	0.068	0.0013
	(0.015)**	(0.0018)
In (total assets)	0.187	-0.0188
	(0.036)**	(0.0051)**
In (vehicle value)	-0.020	-0.0031
	(0.028)	(0.0034)
Male Bracket 2	0.33	0.0002
	(0.13)*	(0.0078)
Male Bracket 3	0.039	0.0173
	(0.075)	(0.0087)*

	ln (residual income)	Non-payment
Male Bracket 4	0.16	0.004
	(0.10)	(0.011)
Female Bracket 1	0.002	0.0020
	(0.051)	(0.0067)
Female Bracket 2	0.31	-0.0220
	(0.14)*	(0.0082)**
Female Bracket 3	0.152	-0.0156
	(0.082)	(0.0087)
Female Bracket 4	-0.009	-0.0062
	(0.080)	(0.0070)
No. of household members	-0.184	0.0059
	(0.045)**	(0.0047)
Metropolitan (Incheon/Gyeonggi)	-0.028	0.0037
	(0.087)	(0.0092)
Busan/Gyeongnam/Ulsan	0.040	-0.0139
	(0.092)	(0.0091)
Daegu/Gyeongbuk	0.08	-0.012
	(0.11)	(0.014)
Daejeon/Chungnam	0.22	-0.017
	(0.11)*	(0.013)
Gangwon/Chungbuk	0.01	-0.0310
	(0.14)	(0.0092)**
Gwangju/Jeonnam/Jeonbuk/Jeju	0.14	-0.036
	(0.10)	(0.010)**
Intercept	-4.29	0.236
	(0.54)**	(0.051)**
R2	0.43	0.08
N	1,498	2,120

Note: Seoul is used as the base category of region variables.
 * $p < 0.05$; **$p < 0.01$

6. Implications

According to the Korea Welfare Panel Study's third survey of households on living conditions and income levels between employees and the self-employed, the total income per self-employed household averaged 33.42 million won, 71.7% of which was accounted for by business income of 27 million won. Total income per employee household was 7.64 million won more than that of self-employed household at 41.06 million won. Interestingly, the share of earned income in total income of employees was smaller than that of the self-employed at 66.8% vs. 71.7%.

Considering that self-employed people pay premiums on their total income, there is a need to find ways to levy premiums on the remaining 33.2% of income employees earn from other sources than wages and salaries. Asset gap was not big between employees and the self-employed, but in vehicle, employees had higher-valued vehicles and more vehicles compared to the self-employed.

The income bracket-based analysis showed that in low-income groups (groups in the 10th percentile or lower), self-employed people had very low income but quite high level in the cost of living and total assets. Also in high-income groups, self-employed people had more income or assets than employees. This indicates that income and assets of the self-employed are more diversely and widely distributed.

In terms of the appropriateness of the premium factors for the self-employed, the econometric model showed that when

only earned income and net business income are used, the contribution equity gap between the categories of the insured grows bigger compared to the method that uniformly applies the factors currently used in premium calculation for the self-employed. Therefore, we came to the conclusion that at the moment, using the current premium factors can achieve more equity than using only earned income and business income as the basis for premium calculation. It was also predicted that efforts are needed to identify additional factors affecting ability to contribute to the NHI to ensure a more equitable contribution method.
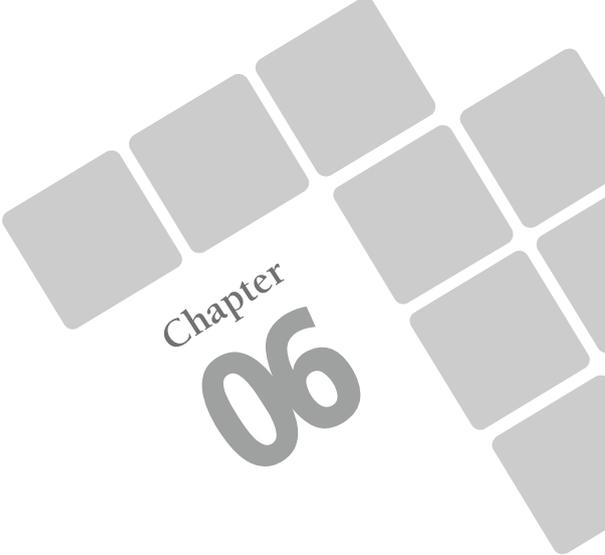
Directions for Reforming Insurance Contributions

Chapter 6
Directions for Reforming Insurance Contributions

1. Basic principles and directions for reforming insurance contributions

Contributions in health insurance should be proportional to ability to pay to ensure that the social security principle of public health can be realized to the maximum as opposed to private health insurance. In view of this, a new framework for contributions should be designed based on the following basic principles:

First, the foremost value of contributions is equitable contribution. In this regard, the ultimate goal of a new contribution scheme should be to establish an integrated model that equally treats employed workers and self-employed people when it comes to paying contributions to ensure equity among all Korean residents. The new design at the same time should consider applicability in reality.

Second, it must be based on the principle of social solidarity and faithfully follow the ability-to-pay principle of social insurance. That is, there must be no missing components in measuring ability to pay. Although it is not a tax, the contribution should include the income distribution function according to the principle of social solidarity.

Third, public acceptance should be considered. Even if the new contribution system is feasible theoretically, it must be acceptable on the part of the public. Especially if the new system brings dramatic changes to insurance cost burden, it may face public resistance.

Fourth, reasonableness and administrative efficiency should be secured. Premium factors commonly applicable to all residents should be developed, and data needed to apply such factors should be easily collected. As the new system may involve administrative changes in eligibility and collection operations, efficiency in such administrative work should be secured.

The principles mentioned above should be considered at the time of designing a single insurance contribution scheme. If a single contribution method cannot be implemented in the short run, improvements that can be achieved in the short run need to be considered. And a short-term model must be able to accommodate a single contribution method needed in the long term. In view of this, the different premium factors between employees and the self-employed should be gradually adjusted. Earned income has been used as the only basis for premium calculation for employees, but for the self-employed, a variety of factors, such as gender, age, vehicle, property and income have been used. If it is difficult to immediately standardize the premium factors, a more progressive framework should be explored.

Therefore, a new contribution method should be designed based upon the current structure with a view to gradually upgrading it. New contribution schemes should consist of what can be

immediately implemented and what can be approached in the long run, and the degree of changes to contribution burden that may be accompanied by the new design should not be substantial.

2. New insurance contribution scheme

In phase 1 (short-term), the contribution scheme should be designed in such a way that addresses some of the problems involved in the current method. At the same time, it must be something like an interim model that can be eventually upgraded to a single contribution model. In phase 2 (mid- to long-term), a single contribution model applicable to all residents should be developed. In other words, the single contribution model should employ the same premium factors and the same calculation method for all insured individuals.

The short-term model will aim to address the problems involved in the current model in relation to the self-employed. The current calculation, divided by 5 million won, should be centralized, and the controversial double application of property and vehicle should be used just once so that premiums for individual household members can be differently calculated based on move-in or move-out within each household. Such calculation should be designed as an interim framework before upgrading to a uniform calculation across the categories of the insured. Currently, the ratios between employee population and the self-employed population are 66.2 to 33.8, but in no distant future, more than 70% of the population is projected to fall under the category

of employees. Foundation for a single contribution scheme can be laid by transferring workers of firms hiring less than five employees into the category of employees under the law, changing economically capable dependents to the insured, and by transferring individuals in special occupations (such as home-school teachers) with income source equivalent to earned income into the category of employees.

The mid- to long-term approach will focus on employees. As the income capture rate is not likely to increase in a short period of time, ways to include as many groups of people as possible in the employee category will be explored, and then ways to reform the insurance contribution scheme for employees will be sought. Any premium factors that are missing or can be missing will be identified and included in the new scheme.

A. Selection of premium factors

1) Short-term

On a short-term basis, employees' ability to pay should be extended to other types of income, including financial income, pension benefits and transfer income, in addition to wage income currently used. For the self-employed, property factor that is currently used twice for households with less than 5 million won in taxable income, will remain but it will be used just once. Vehicle factor will be removed as it is not a proper indicator of ability to pay. Gender and age will be switched to basic premium. Gender and age are currently used as proxy variables

for estimating income, but they will be changed to basic premium. As for income, reported income will be used.

2) Mid- to long-term

There are basically two ways to reorganize premium factors in the new single contribution scheme. One is implementing an income-based scheme and the other is introducing other factors (e.g. property) such as basic premium.

The income-based calculation should reflect ability to pay as it is by taking into account all sources of income. Currently, income of only about 45% of self-employed individuals is known. If an income-based single contribution model were implemented, approximately 18% of the population may be exempted from contribution burden. To make up for this potential drawback, introduction of basic premium in addition to income-based premium can be considered. Besides, basic premium is somewhat in line with the "user pays" principle. Health insurance as social insurance cannot make benefits and contributions equal, but raising cost awareness to the minimum extent can be helpful in ensuring sustainability of the program.

B. How insurance contribution method can be reformed

1) Short-term

By short-term, we are assuming that the currently dual-structured contribution model will continue to be used for

some time. In this regard, ways to improve upon the current model will be explored for employees and the self-employed, respectively, based upon the principles above.

A) Employees

For employees, dependent eligibility should be reviewed first. Stricter eligibility requirements need to be in place to minimize the "free rider" issue involving dependents. The dependent eligibility criteria currently applied to siblings of employees should be strengthened. 765,000 brothers or sisters of employees account for approximately 3.9% of all dependents covered. Of these, about 52.6% live together with the enrollees and the remaining 47.4% do not live together with the enrollees. Of all siblings, those between 20 and 65 years of age who are believed to be economically capable comprise approximately 87%. The figure correspond to the family support obligation conditions defined in the National Basic Livelihood Security Act. Reflecting this reality, all siblings need to be excluded from dependent coverage of employees. Once removed, siblings can be transferred into the category of the self-employed. Those who meet Medical Aid requirements can be covered by the program, and others who are economically capable can be administered according to their sources of income.

Second, dependents with income should be switched to the insured. Under the current dependent eligibility criteria, anyone with no business license registered and whose sum of business income and rental income is less than 5 million won and whose

financial income is less than 40 million won are entitled to dependent coverage. Anyone can be a dependent no matter how much pension benefits or other earnings (35 million won in financial income, for instance) he or she has. Going forward, the dependent eligibility requirements that vary depending on the type of income need to reflect all types of income. That is, actual ability to pay should be reflected regardless of the type of income. As of the end of 2010, approximately 2.4 million dependents owned income other than financial income. If financial income were reflected, a far larger number of dependents will turn out to be able to pay. Therefore, it is proposed that the dependent eligibility requirements be modified as follows: Regardless of business registration, a person should be excluded from dependent coverage if the sum of all types of income he or she is earning is larger than the minimum cost of living standard. In light of public acceptance, setting a high income standard first and then gradually raising it needs to be considered also. As income is inclusive of all sources of income, property consideration will not be needed. If property generates income (e.g. rental income, financial income), it will be already included in the income calculation. Those individuals holding excessive property that does not generate income will not be considered at this time, as premium calculation in the future will be solely based on income.

Third, earned income, the major premium factor for employees, needs to be reassessed. Inequality may also exist within the category of employees between those who earn wages only and others who have additional income sources. For example, even

if high-income earners owning building, stores, or a large stake in companies work as employed workers, they just need to pay premiums on earned income and not on other income compared to ordinary workers. Thus, the contribution is regressive in terms of total income. As analyzed in the previous chapter, earned income of employees accounts for approximately 59% of total income. The rest 41% is not subject to premium collection. Therefore, premiums also need to be imposed on other sources of income, such as pension benefits, financial income, rental income and business income.

Premiums can be imposed on other sources of income while maintaining fiscal neutrality of overall health insurance using the following method: If wage income comprises 60% and other income comprises 40% of total income subject to insurance premium, a 5.64% premium rate is applied, equally shared between employer and employee under the current contribution scheme. If premiums are also imposed on other income, employer's contribution will remain at 2.82%, but employee's contribution rate for wage income can be reduced as much as the contribution payable for other income. If insurance budget needs to be increased, premium rates can be adjusted accordingly.

B) Self-employed

In the short-term, the primary focus will be on the improvement of the contribution method for the self-employed. First, vehicle will be removed. As analyzed in the previous chapter, vehicle is not an appropriate factor in assessing the insured person's

ability to pay. When the 1998 contribution scheme in which the current model has its root was designed, vehicle may have been a proper measure of ability to pay, but at a time when almost everyone owns vehicles, it is no longer related to ability to pay. It is therefore suggested that vehicle be taken out of premium calculation for the self-employed.

Second, the calculation structure for the self-employed needs to be simplified. Among others, property and vehicle currently used twice should be used only once. In the calculation for households with less than 5 million won in taxable income, property and vehicle are used to estimate assessed income and again to calculate premiums related to property and vehicle. On the other hand, property and vehicle are used just once in premium calculation for households with more than 5 million won in taxable income, as the estimation of their assessed income is not needed. If the contribution share of property and vehicle used in the estimation of assessed income for households with less than 5 million won in taxable income is removed and then added to the calculation of property and vehicle-related premiums, it can resolve the double application of these factors without affecting contributions.

Third, contribution points per individual should be separately calculated to respond to demands for premium adjustment in relation to changes to household members. In gender and age indicators that measure economic participation capacity, 30% of people are concentrated in the highest grade 30. For this reason, premiums do not change even in the case of move-in or move-out of household members, and premium per person

cannot be calculated. There should be a way to address this problem. Introduction of basic premium based on gender and age can be a solution.

Fourth, basic premium should not be imposed on minors under the age of 20 with no capacity to participate in economic activities. As analyzed in the previous chapter, ability to pay premiums fell when the number of household members with no capacity to participate in economic activities increased. Elderly people aged 65 or older can also be considered to have no capacity to participate in economic activities, but they may still be able to pay from possession of property. Thus, differential rates of basic premium can be considered for elderly people.

Fifth, income distribution function of the contribution scheme for the self-employed needs to be improved. As pointed out earlier, the calculation of premiums on income and property is seriously regressive. As in the calculation for employees, a fixed ratio method can be explored, but implementation of this method needs to be more gradual if it greatly affects premiums to ensure public acceptance.

Sixth, the 5 million won baseline for the self-employed needs to be removed. The dual structure should be unified at least within the category of the self-employed for an eventual single contribution scheme in the mid- to long-term. This simplification can be done by employing a uniform set of criteria for all self-employed people and by adjusting the share of property and vehicle that varies between earners of less than 5 million won and earners of more than 5 million won.

Seventh, the concept of "assessed income" should be abolished

and premiums should be determined based on taxable income. This proposed reform refrains from groundless assumptions. Assessed income has been used as a proxy concept to estimate income. The new model will not use any proxy variable. If there is no taxable income, only property-related premium and basic premium will be imposed.

Eighth, premium on housing lease and rent should be carefully considered. As of January 2011, of approximately 8,033,000 self-employed households, 37.39%, or 3,003,000 households are living on a lease or monthly rent basis. Of these, 2,53,000 households have a lease or rent below 5 million won. The rapid increase in the lease or rent in recent years has substantially driven up insurance burden on these relatively more vulnerable households. Thus, it would be reasonable to exclude lease or rent below certain value (below 10 million won, for instance) from premium calculation.

Ninth, the property chare in contribution needs to be lowered. The share has increased by 12%P from the time when the formula was initially designed. The validation in the previous chapter showed no correlation between property and ability to pay.

The new model was designed with a view to reorganizing premium factors for the self-employed in the short-term and implementing a single contribution model in the mid-to long-term. To facilitate the implementation of a single contribution scheme, the number of self-employed people must be reduced as in other countries. Appropriate measures should be sought to achieve this. Among others, employees of firms with less than five workers should be transferred into the category of employees

as required by law as soon as possible. Additionally, other self-employed people in special occupations (self-employed people who are employed or who have individual business licenses registered, such as taxi cab owners and drivers, self-owned bus or truck drivers, delivery persons, dispatch service workers, home-school teachers, insurance salespersons, etc.) should also be transferred into the category of employees. As mentioned earlier, self-employed people in special occupations face a disadvantage due to the treatment of their income - even if their earnings are wages, their contributions are determined in the same manner as global income. Transferring them into the category of employees is not only in line with what the new design aims to achieve, but it also can raise equity. Therefore, the switch needs to be done as quickly as possible.

2) Mid- to long-term

The mid- to long-term plan is the final destination of the insurance contribution scheme. A single contribution method for all residents is needs to be designed. The analysis in the earlier chapter revealed that introduction of a single contribution scheme would deepen inequality. At the same time, vehicle turned out to be inappropriate for use in premium calculation, and property was not closely related to ability to pay. Therefore, to improve equity and social solidary in mid- to long-term, this study suggests introduction of basic premium and implementation of an income-based single contribution scheme. If about 1 million self-employed workers in special occupations (or about 2.5 million

when household members are included) and about 700,000 workers from firms with less than five employees[11] (or about 1.8 million when household members are included) are transferred to the category of employees, 36.7 million subscribers out of total 48 million subscribers will belong to the category of employees, raising the rate of the employee insured to over 75% and thereby laying the foundation for introducing a single contribution scheme.

It depends on the government's will by when over 75% of all residents will receive employee coverage. But considering that the government has already decided to support people from firms hiring less than five workers who are not enrolled in social insurance beginning in 2012, implementation of a single contribution scheme is expected to be possible in 2012. The government therefore needs to make proper preparations in 2012, including formation of a task force team.

A single contribution scheme imposes basic premium and other premiums based on total income. Employers will continue to bear 50% of the contribution costs and employees will pay premiums according to given rates based on total income, in addition to basic premium (about 3% of total budget).

Under the new contribution scheme, all insured individuals will be levied flat-rate contribution as basic premium and other premiums according to income level. The method of levying

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11) Currently, premium subsidies by the government are scheduled beginning in 2012 to help some 700,000 workers of firms with less than five employees who are not enrolled in the National Pension Service and Employment Insurance Program get enrolled in social insurance.

contributions under the new scheme will be as follows:

- 50% of premium continues to be contributed by employer based on income and the remainder 50% is contributed through basic premium determined by the number of household members and other premium determined by wages and other income.
- Accordingly, premium rates will differ between employers and employees.
- Individuals with no income will be exempted from income-based contribution and will be required to pay basic premium only.
- Excluding minors under the age of 18, the same amount of basic premium will be imposed regardless of age. That way, all affected individuals gain eligibility (for senior citizens aged 65 or older, basic premium can be reduced by half).
- Collection of employer's share will be carried out in the withholding method. For the insured, individual premiums will be calculated and then summed up for each household.

The short-term and mid- to long-term improvement suggestions can be compared against the problems involved in the current contribution scheme in several aspects: The different calculation within the category of the self-employed will be tackled by the short-term plan, and the different calculation between the categories of the insured will be addressed by the mid- to long-term plan. Once total income-based premium and basic premium are employed as the standard components in the contribution formula,

the dual calculation problem will be resolved.

Different premium factors, which is the cause of inequitable treatment between employees and the self-employed, will be standardized in the short run, starting with the category of the self-employed. The problem will be eventually and fundamentally resolved in the mid- to long-term between the categories of the insured. Eligibility difference between employees and the self-employed can be automatically resolved by making all members insured persons. Different contribution obligation can also be resolved by applying the same set of criteria to all residents. Of course, different criteria for calculating income will also be standardized under the single contribution scheme. In all senses, dramatic improvement in equity of insurance contributions will be achieved in mid- to long-term.

The income's regressive contribution will be partly addressed in the short term and then further resolved gradually in mid- to long-term. To ensure public acceptance, changes to premiums will not be substantial in the short run.

The complexity of the current calculation formula will be tacked by a short-term solution. Finally, the formula will be designed in a way that premiums are calculated per individual.

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