

Viet Nam

Report to the Government

**Actuarial valuation of the public pension scheme of
the Vietnam Social Security Fund**

**International Financial and Actuarial Service
Social Security Department
Geneva, June 2012**

Publications of the International Labour Office enjoy copyright under Protocol 2 of the Universal Copyright Convention. Nevertheless, short excerpts from them may be reproduced without authorization, on condition that the source is indicated. For rights of reproduction or translation, application should be made to ILO Publications (Rights and Permissions), International Labour Office, CH-1211 Geneva 22, Switzerland, or by email: pubdroit@ilo.org. The International Labour Office welcomes such applications.

Libraries, institutions and other users registered with reproduction rights organizations may make copies in accordance with the licences issued to them for this purpose. Visit www.ifrro.org to find the reproduction rights organization in your country.

ILO Cataloguing in Publication Data

Viet Nam: report to the Government: Actuarial valuation of the public pension scheme of the Vietnam Social Security Fund / Social Security Department, International Labour Office. - Geneva:ILO, 2012xi, ... p.

ISBN: ... (pdf)

International Labour Office; Social Security Dept

social security / social security financing / actuarial valuation / projection / Viet Nam

02.03.1

The designations employed in ILO publications, which are in conformity with United Nations practice, and the presentation of material therein do not imply the expression of any opinion whatsoever on the part of the International Labour Office concerning the legal status of any country, area or territory or of its authorities, or concerning the delimitation of its frontiers.

The responsibility for opinions expressed in signed articles, studies and other contributions rests solely with their authors, and publication does not constitute an endorsement by the International Labour Office of the opinions expressed in them.

Reference to names of firms and commercial products and processes does not imply their endorsement by the International Labour Office, and any failure to mention a particular firm, commercial product or process is not a sign of disapproval.

ILO publications and electronic products can be obtained through major booksellers or ILO local offices in many countries, or direct from ILO Publications, International Labour Office, CH-1211 Geneva 22, Switzerland.

Catalogues or lists of new publications are available free of charge from the above address, or by email: pubvente@ilo.org

Visit our website: www.ilo.org/publns

Printed in Switzerland

Abbreviations and acronyms

CPI	Consumer Price Index
EIU	Economic Intelligence Unit
FIAJ	Fellow of Institute of Actuaries of Japan
Funding ratio	Ratio of end-of year reserve to annual expenditure (benefits and administration)
GAP	General Average Premium
GDP	Gross Domestic Product
GSO	General Statistical Office
ILO	International Labour Office
ILOFACTS	ILO Financial and Actuarial Service
ILSSA	Institute of Labour Science and Social Affairs (in MOLISA)
IMF	International Monetary Fund
IMR	Infant mortality rate
MOF	Ministry of Finance
MOLISA	Ministry of Labour, Invalids and Social Affairs
PAYG	Pay-as-you-go
Reserve ratio	<i>See above “Funding ratio”</i>
RSAF	Retirement and Survivorship Allowance Fund
SECSOC	Social Security Department (ILO)
TFR	Total fertility rate
VSIF	Voluntary Social Insurance Fund
VSS	Vietnam Social Security
WB	World Bank

Acknowledgements

The Government of Viet Nam requested the ILO to carry out the actuarial valuation of the public pension scheme of Vietnam Social Security Fund. The Director General of the ILO designated the ILO Financial and Actuarial Service (ILO-FACTS) of the Social Security Department (SECSOC) to carry out the actuarial review in collaboration with the ILO Office in Viet Nam.

The ILO FACTS mandated Mr. Junichi Sakamoto, FIAJ¹, and Mr. Tatsuji Ohguri², to undertake this assignment under the general and technical supervision of Mr. Hiroshi Yamabana, Acting Chief of the ILO FACTS and Mr. Carlos Galian, Associate Expert in the ILO Office in Viet Nam. Mr. Sakamoto and Mr. Ohguri visited Hanoi in May 2011 to gather necessary data and have discussions with the national stakeholders. The ILO mission worked in collaboration with the staff of the Ministry of Labour, Invalids and Social Affairs (MOLISA), Vietnam Social Security (VSS), Ministry of Finance (MOF) and General Statistical Office (GSO) for data collection and discussions on various aspects of the study. The clarification of data has been done also in distance and the projections and the report writing has been carried out in NRI Tokyo, Japan and ILO Geneva, Switzerland in consultation with the ILO Office in Viet Nam.

The Director General of the ILO extends his sincere gratitude to Ms. Tran ThiThuyNga, Director of Social Security Department of MOLISA, Mr. Nguyen Vinh Quang, Deputy Director of International Cooperation Department of VSS and Mr. Tran Van Son, Head of International Affairs Division, Policy Advisory Group of MOF for their collaboration and assistance throughout the actuarial valuation.

¹ Fellow of Institute of Actuaries of Japan

² Both are experts working in Nomura research Institute (NRI), Tokyo, Japan.

Executive summary

1. Financial projection of the present public pension scheme of the VSS (status-quo)

Currently the overall coverage rate of the VSS scheme compared with the labour force is still around 20%.

The present public pension scheme of the VSS is characterized with the low retirement ages, especially for females, with special early retirement arrangements for some groups of the population amid the steady aging of the population due to the longevity increase and the fertility decline.

The replacement rate is structurally too high, especially for civil servants and females, favours early retirement and discourages long time employment due to the pension formulae reaching the maximum 75% of the reference wage after 30 years of contributions for males and 25 years of contributions for females.

As the revalorization method of the private-sector workers' wages to obtain the reference wage for pension calculation is only in line with the inflation, not the average wage increase, for their whole working career, the seemingly high replacement rate in the calculation formulae is not achieved and the replacement rate may end up as modest amid the substantial real average wage increase, while the civil servants continue to get pensions with high replacement rate due to the reference period of 10 years with the revalorization of the wage in line with the minimum salaries.

Based on the conservative assumption of the coverage rate of the VSS to be more or less constant for the projection period, it is projected that the reserves of the fund will be depleted in the year of 2027.

2. Financial projections of the reform options

2.1 Increase of the retirement age

Taking into account the fact that there is and will be substantial increase in the life expectancy in Viet Nam and that there will be substantially smaller number of working population per pensioner due to the declining fertility rate as well as the longevity, it is essential to gradually increase the retirement age to improve the future financial balance between the contributions and benefits.

It should be noted that the increasing the retirement age is important in order to have sufficient labour force amidst the decrease of the working-age population as well as to maintain financial sustainability of the scheme. It is also important that the retirement ages for men and women should be finally equalized so that Viet Nam could utilize utmost the human resources available in the country.

A financial projection was carried out based on the assumption that the retirement ages for women will be increased from the year 2016 at the pace of one year every three years till they reach 60 and then the retirement ages for men and women will

be further increased to 65. As the fund depletion is very near in the future, this measure will delay the depletion of the reserves for only 2 years. Hence, although this measure is important for the long future financial sustainability, additional measures should be taken to cater for the short- to middle-term problem of the liquidity of the scheme.

2.2 Rationalization of the pension formulae

As seen in the result of the retirement age increase projection, **the retirement age increase only is not enough for maintaining the financial sustainability of the scheme.**

In addition, there is a fundamental problem of **the imbalance of benefits between civil servants and private-sector workers**, caused mainly by the difference in the calculation of the reference wage for pension calculation, i.e. different reference periods for the calculation of the pension (10 years for civil servants and the whole working life for private-sector workers) and different indices used for the revalorization of the reference wage (the minimum wage increase for civil servants and the inflation for private-sector workers). As a result, **it is estimated that the replacement rate of private-sector workers is around half of that of civil servants.** It should be also noted that the replacement rate of private-sector workers very much depends on the wage increase rate in real terms and that **their replacement as well as the scheme financing become unpredictable and unstable.**

The current pension formulae favours short-career workers and does not provide any incentives for long-career workers. Therefore, increasing retirement ages for men and women only would not lead to the longer working and contributing periods in the future.

In order to overcome these fundamental problems, changes in the pension formulae are recommended. A projection was done based on the reforms that the annual accrual pension rate is reduced to the flat annual 2.0% from the current '2.5%' over twenty years between 2016 and 2035, the civil servants reference period for calculation of the wages prolonged to the working-life average instead of the last ten years' average, the private-sector reference wage calculated by using the revalorized wages in line with the average wage instead of the current inflation rate, on top of the retirement age increase to 65 as in the option 1.

All these reforms have led to delay the depletion of the reserves to the year of 2052 and the equalization of the replacement rate between civil servants and private-sector workers, above 40% of the wage.

It is also recommended that the average wage increase of the all contributors should be used for the revalorization of the reference wages instead of the current customs of using the minimum wage increase for the revalorization of the wage of civil servants so that the revalorization factor would not be affected by the factor which could be artificially manipulated in the wage discussions of only civil servants.

2.3 Notional Defined Contribution (NDC) scheme

As requested by the MOLSA, NDC calculation has been done based on the assumption that the contributions would be notionally accumulated in individual accounts with notional interest rate same as the average wage increase rate and that the notionally accumulated amount would be converted into pension by dividing the amount by the life expectancy at the time of the retirement. It is assumed that 16% out of 22% of the contribution rate can be allocated to the NDC scheme since the remaining 6% should be used to pay other benefits such as survivors' benefits, the transfer to the health insurance scheme and the administration cost. The retirement behaviour of the retirees has been assumed same as the status-quo situation, but it is assumed that the pension is to be paid at the age of 65 both for males and females.

Based on these assumptions, the resulting replacement rate has resulted %³ of the average wage in 2049.

It may not be very well realized among tripartite partners what the NDC means on the adequacy of benefits through automatic adjustment of pension level in line with the longevity increase. Additional study on the design of the scheme as well as serious consultations should be necessary in case the Government of Viet Nam would like to pursue this option.

3. Investment of the reserves

As the investment of the reserves of the scheme is concentrated in government bonds and bank deposit, the overall rate of return has not been very satisfactory in the steadily growing economy of Viet Nam. Therefore, **it is recommended that another study on investment should be carried out for establishing long-term investment strategies and investment portfolios to maximize the investment return within the acceptable range of investment risks. It should be well noted that the current investment return is well below the wage increase or even has not caught up with the inflation in some years.**

4. Periodical actuarial valuations and data

Good governance of the scheme relies on the planning of the scheme based on solid factual basis. An actuarial valuation is a major tool of planning for maintaining the long future financial sustainability of the scheme as well as the adequacy of the benefits and coverage. It is recommended that actuarial valuations should be carried out at least once every three years and at any time it should be carried out.

Reliable data, as a starting point of the valuation as well as requisites for setting future actuarial assumptions to control the dynamics of the scheme, is essential to carry out reliable actuarial valuations. Even though the projection methodologies

³As this average replacement level includes the effects of those with short contributing years, the percentage should be taken with a caution. However, attentions should be paid that the substantial reduction in payments is foreseen in the case of NDC introduction.

techniques were the most sophisticated and robust, results of the valuation would be seriously undermined and become unreliable without reliable data.

It is well noted that there has been significant improvement in the data management by the Vietnam Social Security (VSS). Further improvements in the data processing and data collection are strongly recommended. Improvements should be done particularly in the compilation of:

- The number of active and **inactive** contributors of the scheme by age and by sex
- The number of existing, terminated and **new beneficiaries** by age and sex, the average pension amount of existing, terminated and **new beneficiaries** by age and sex, the average past contribution years of existing, terminated and new beneficiaries by age and sex, in the case of survivor' pensioners, **the average number and the age of new survivors' pensioners** specifically.
- **Salary distribution** of active contributors by age and by sex.

It is also important that the scheme indicators such as the demographic and replacement ratios as well as accounting data are continuously analysed and consistency should be checked with above-mentioned more disaggregated data.

5. Coverage of the pension scheme of the VSS

The number of contributors of the pension scheme of 9.3 million compared with the estimated number of workers of 48.5 million in 2009 suggests that the coverage rate of the contributors is the order of 20% of the total workers. Although the coverage rate may be increased in line with the gradual formalization of the workforce, it should be noted that most of the population are and will be excluded from the social security coverage in the near future.

It is recommended that the Government should formulate an umbrella strategy of aiming at the comprehensive coverage of the population of Viet Nam under the old-age income security schemes, including the existing mechanisms such as the compulsory and voluntary pension schemes of the VSS and the tax-based non-contributory pensions currently provided to those at the ages of 80 and above.

It cannot be easily assessed how much percentage the current contribution base for private-sector workers could be over the total wage. There are some episodes that many workers' wages are registered as the minimum wage or have never been revised from their initially registered wages regardless of their current real wages. This has led and will lead not only to the deteriorating financial situation to the scheme but also to the erosion and inadequacy of the pension level to be paid by the scheme. **As it is unavoidable to gradually reduce the replacement rate in the future, full compliance of the wage registration will become more essential for the pension adequacy as well as the financial sustainability of the scheme.**

6. Supplementary voluntary pension schemes

As it is inevitable to gradually reduce the pension level of the public pension

in the future, it is important that supplementary voluntary pension schemes should be developed in addition to the public pension scheme. **Voluntary pension schemes should play a role of supplementing the current provisions of the VSS pension by providing the top-up benefits.**