

# **ASP MEMBER'S MANUAL**



**ACTUARIAL SOCIETY OF  
THE PHILIPPINES**

**2008**

**ASP MEMBER'S MANUAL**  
**2008 Edition**

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Published by the  
**Actuarial Society of the Philippines**  
November, 2008



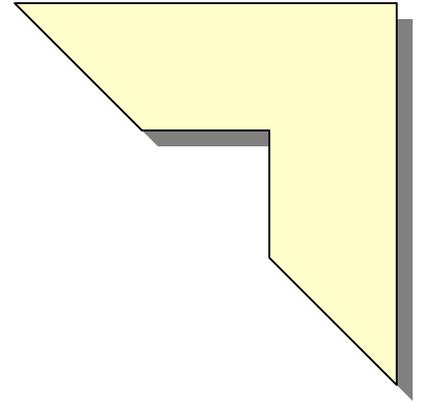
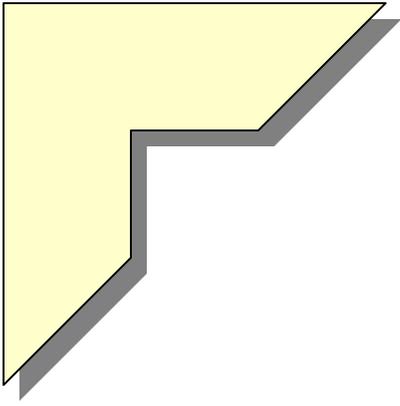
**ASP Member's Manual**  
**2008 Edition**

**Edited by: 2008 ASP Membership Committee**

Previous Editions:  
ASP Member's Manual, 1992  
ASP Member's Manual, 1998  
ASP Member's Manual, 2004  
ASP Member's Manual, 2006

**For updates and amendments, check the ASP website at [www.actuary.org.ph](http://www.actuary.org.ph)**

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## **SECTION I: ABOUT THE SOCIETY**

Vision and Mission

The ASP Logo

History

Past ASP Presidents

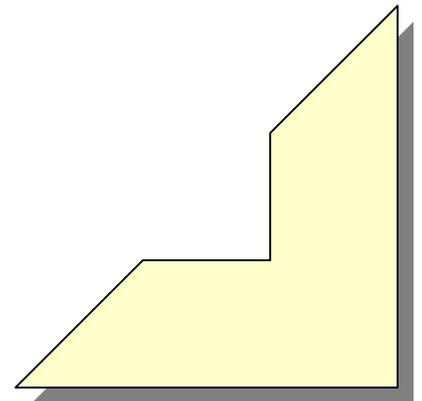
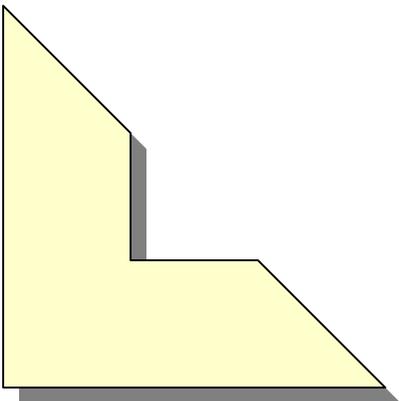
Articles of Incorporation

By Laws

2008 Officers and Board of Governors

2008 Committees

ASP Secretariat



## VISION AND MISSION

(Adopted 2000)

We are the internationally recognized organization of actuarial professionals in the Philippines. As acknowledged experts in the areas of risk management and financial services, we are committed to the highest standards of our profession, upholding the highest levels of integrity, pride and competence.

We provide technical opinion to relevant business stakeholders and responsibly take a stand on issues that affect the public good.

We are a caring organization that provides a forum for the professional growth, social development and self-regulation of our members through organized activities. We value mentoring as necessary so that we become recognized in the rapidly expanding global market.

## THE ASP LOGO



profession to man.

The Society first adopted its official logo during the presidency of Mr. Robert A. Bergstresser in 1964-65. The logo contained a mortality curve drawn on a rectangular coordinate system, a coconut tree and the name and year of the foundation of the Society. The mortality curve is associated with actuaries as a normal distribution curve is to statisticians, or a wheel is to the civil engineers, so that it was deemed to have a mortality curve in the logo. The coconut tree, one of the most useful of all Philippine trees, symbolizes the usefulness of the actuarial

During the Society's 50<sup>th</sup> anniversary celebration in 2003, the logo has been given a new look – a modernized version of the symbol adopted in the 60s – which is what people see in all ASP presence today. The essential parts have been kept intact to preserve the standards and ideals of the profession, which have been upheld by the Society throughout the years.



## HISTORY

Prior to 1925, the one domestic life insurance company in the Philippines, the Insular Life Assurance Company Ltd., availed of the services of consulting actuaries in Hong Kong.

In 1925, Dr. Emeterio Roa, Sr. joined the Insular Life as Actuary. Dr. Roa had been an actuarial *pensionado* at the University of Michigan. He returned to the Philippines in 1924 and served for one year in the Office of the Insular Treasurer who was then performing the functions of the Insurance Commissioner.

After Dr. Roa came Dr. Luis Salvosa, Mr. Exequiel Sevilla and Dr. Manuel Hizon. These four were the actuarial pioneers in the Philippines.

In 1953, these four pioneers along with four other actuaries organized the Philippine Actuarial Society. The mission of the Society was to advance actuarial science in the Philippines through the exchange of ideas and the promotion of actuarial studies and other projects.

In the early fifties, the Philippine Actuarial Society was more of a social club than a scientific body. With eight members, it was perhaps not surprising.

In 1958, the first convention was held and the progress of the Society began to accelerate. The conventions have continued yearly, and serve as venues for professional development and interaction. Actuaries benefit from presentations from speakers of varying backgrounds, on topics that may not necessarily be actuarial in nature but can be interlinked with the work and responsibilities of actuaries. The conventions also serve as means to foster ties among actuaries and those with close links with the actuarial profession.

In 1964, the Society adopted its Guide to Professional Conduct, which defined the responsibilities of the actuary as a professional. To further firm up the Society's aim, it was incorporated in 1969 as the Actuarial Society of the Philippines, Inc., and registered with the Securities and Exchange Commission. The membership structure was changed from a single level (Member), to three categories (Fellow, Associate and Affiliate). This structure is maintained to this day.

To address ethics issues, the Society created the Ethics Committee in the mid-1980s. This body was tasked to receive, hear and investigate any complaints relating to a member's non-adherence to the Society's Guide to Professional Conduct. In 1988, this Committee was reconstituted into the Professional Standard and Review Council (PSRC). A Code of Conduct had likewise been adopted. The PSRC continues to provide interpretative opinions and rulings on cases involving breaches on the Code of Conduct, to investigate questions and complaints on the conduct of members, and to organize the Fellowship Admission Session (FAS) for applicants to Fellowship status. In 2002, the PSRC also began to hold Fellowship Advancement Sessions for the Fellows' continuing education as well.

A testimony that the Society has gone a long way is its acceptance as a full member organization of the International Actuarial Association in 1998. During the same year, the initial groundwork of the Society's Continuing Education Program, an accreditation system where qualification is granted based on credit hours of technical work such as seminars and technical papers, was laid.

The Society is also one of the founding members of the East Asian Actuarial Congress (EAAC). The EAAC is composed of 9 actuarial organizations and was organized to promote and develop international collaboration in the actuarial field. The Society played host for the first time, during the 3rd East Asian Actuarial Conference at the Philippine International Convention Center in 1985. To mark its 50<sup>th</sup> Foundation Anniversary, the Society successfully hosted the 12<sup>th</sup> East Asian Actuarial Conference at the Shangrila Plaza Hotel in Makati from October 6 to 9, 2004.

Through the years, the exposure of actuaries in the Philippines has increased significantly. Actuaries are now involved with insurance, pre-need, employee benefits, healthcare, consulting, regulations and banking. With the expanding role of the actuary, the Society's various Committees develop programs that strengthen the actuarial foundation and enables actuaries to keep up with the advancement in their field and related areas.

To strengthen the Society's governance structure and processes to further enhance the Society's capability to serve and its members and to respond to new developments in the actuaries' various fields of practice, the Society adopted a new set of Bylaws in 2004. This led to the creation of the Education and Eligibility Council, whose main objective would be to continually update education and eligibility standards in line with international norms, and the Nominations Committee to formalize the Society's electoral process.

Truly, after 51 years, the Actuarial Society of the Philippines has come a long way. Now, more than ever, it stands as a beacon in maintaining the high standards and integrity of the profession.

## PAST ASP PRESIDENTS

1954-1955	Emeterio Roa, Sr. +	1984	Ernesto E. Reyes
1956	Luis R. Salvosa +	1985	Dolores T. Gicaro
1957-1958	Exequiel S. Sevilla +	1986	Reynaldo T. Gatcheco, Jr.
1959	Manuel O. Hizon +	1987	Milagros D. Fanega
1960	Alexander T. Brooks +	1988	Azucena R. Reyes
1961	Antonio W. Diokno +	1989	Leonardo B. J. Tan
1962	Emeterio C. Roa Jr.	1990	Ines G. Belleza
1963	Agustin C. Mercado	1991	Evelyn T. Carada
1964	Federico C. Roa, Sr. +	1992	Evangeline C. Escobillo
1965	Robert L. Bergstresser +	1993	Jaime M. Santiago
1966	Andronico D. Castillo	1994	Edna G. Ledesma
1967	Isagani G. de Castro	1995	Aida C. Josef
1968	David L. Francisco	1996	Reynaldo C. Centeno
1969	Feliberto B. CavoSORA	1997	Coralyn G. Del Rosario
1970	Conrado C. Roa +	1998	Mona Lisa B. de la Cruz
1971	Tala P. Lazatin +	1999	Ma. Elisa A. Franco
1972	Enrique M. Zalamea Jr.	2000	Ma. Sharon B. Maranan
1973	Adriano B. Batara +	2001	Henry Joseph M. Hererra
1974	Peter R. Sen	2002	Conrado S. de la Cruz
1975	Justino Padiernos	2003	Maria Victoria C. Lim
1976	Artemio V. Mendoza +	2004	Elizabeth A. Reyes
1977	Mariano M. Mercado, Jr.	2005	Lope Jose U. Garde
1978	Mabini L. Juan	2006	Lucia Chona S. Ventura
1979	Martha R. Horrigan	2007	Maria Elena B. Herrera
1980	Noe Y. Nebrida +		
1981	Alfonso P. Garcia Jr.		
1982	Daniel M. Mercado Jr.		
1983	Panfilo P. dela Paz		

+deceased

**ARTICLES OF INCORPORATION OF THE  
ACTUARIAL SOCIETY OF THE PHILIPPINES, INC.  
(January 1969)**

KNOW ALL MEN BY THESE PRESENTS:

That WE, all of whom are of legal age, majority are Filipinos, and residents of the Philippines, present members of the Actuarial Society of the Philippines, have this day met and unanimously decided to apply for the incorporation of this organization as a non-stock corporation of actuaries, under the laws of the Philippines.

AND WE HEREBY CERTIFY:

First. -- That the name of said corporation shall be

“ACTUARIAL SOCIETY OF THE PHILIPPINES, INC.”  
(hereinafter referred as the “Society”)

Second. -- That the purposes for which said corporation is formed are as follows:

PRIMARY PURPOSE

To serve as the recognized professional membership organization for actuaries in the Philippines which will qualify and develop competent professional actuaries.

SECONDARY PURPOSE

1. To promote the study and discussion of actuarial science applications to financial security programs and the allied phases of life, casualty and disability insurance, annuities and pension funds, accident and health insurance, with particular reference to conditions and problems obtaining in the Philippines;
2. To promote mutual understanding and cooperation among the members of the Society and to enable said members to become better acquainted with one another;
3. To promote and maintain high professional and ethical standards among actuaries;
4. To undertake such activities that will encourage, assist and facilitate the further education and/or technical upliftment of its members and prospective members;
5. To give or render aid and advice to any member of the association in all matters pertaining to the practice of the actuarial profession;
6. To adopt rules and regulations and/or institute measures for the maintenance of high professional conduct, honor and integrity of the members in dealing among themselves as well as with the insurance industry or the insuring public;

7. To cooperate and/or coordinate with similar technical and scientific organizations as well as government authorities for the successful and effective accomplishment of the above objectives;
8. To study the actuarial implications of any existing and proposed legislation on the various fields of applications and practice of the actuarial profession;
9. To publish statistical and actuarial tables;
10. To maintain a library for the use of members of the Society;
11. To invest the assets of the Society not immediately required in such forms of investment as may be approved by the Board of Governors;
12. To engage and/or terminate the services of employees necessary to achieve the Society's objectives;
13. To insure assets and employees of the Society against such hazards, risks, accidents and liabilities of all kinds;
14. To raise funds from the members and to accept donations and bequests for any or all of the purposes of the Society;
15. To make donations to other organizations having similar or parallel objective as the Society;
16. To appropriate budgets for expenditures for carrying out the Society's projects and activities; and
17. To engage professional services of any kind and remunerate any person for such services rendered in connection with the conduct or affairs of the Society.

AND IN FURTHERANCE OF SUCH AIMS AND PURPOSES

To purchase, acquire, lease, hold, sell, and convey such real or personal property as may be necessary or proper for the attainment of those purposes for which the Society is organized, and

To do each and everything necessary, suitable, and proper at any time or place for the accomplishment of any of the purposes, or attainment of any one or more of the objectives herein enumerated, and to exercise and possess all powers, rights and privileges necessary or incidental to the purposes for which the Society is organized or to the activities in which it is engaged, including the right to use and enforce contracts; or exercise any right thereunder on behalf of its members; and in general to exercise all powers, rights, and prerogatives as may be granted or allowed by law now or hereafter to the corporation organized under the laws of the Philippines;

Third. -- That the place where the principal office of the corporation is to be established or located is in Metro Manila, Philippines;

Fourth. -- That the term for which said corporation is to exist is fifty years from and after the date of incorporation;

Fifth. – That the names and residences of the incorporators of said corporation are as follows:

NAMES	NATIONALITY	RESIDENCES
David L. Francisco	Filipino	26 Seattle Street., Cubao, Quezon City
Feliberto Cavosora	Filipino	JOQ – 4, Camp Aguinaldo, Quezon City
Azucena Reyes	Filipino	142 Retiro Street, Quezon City
Daniel Mercado, Jr.	Filipino	76 Scout 14, Quezon City
Isagani de Castro	Filipino	131 Pinatubo Street, Mandaluyong, Rizal
Antonio W. Diokno	Filipino	113 Amapola Street, Bel Air Village, Makati, Rizal
Alexander T. Brooks	British	2 Recoletos Circle, Urdaneta Village, Makati, Rizal
Manuel Hizon	Filipino	148 Speaker Eugenio Perez, Quezon City
Conrado Roa	Filipino	48 East Maya, Philam Homes, Quezon City
Enrique M. Zalamea, Jr.	Filipino	49 Scout Madrinan, Quezon City

Sixth. – That the number of Governors to be henceforth called the Board of Governors, is eight (8) and that the names and residences of the Governors of the corporation who are to serve until their successors are duly elected and qualified as provided by the By-Laws, are as follows:

NAMES	RESIDENCES
Feliberto Cavosora	JOQ – 4, Camp Aguinaldo, Quezon City
Conrado Roa	48 East Maya, Philam Homes, Quezon City
Enrique M. Zalamea, Jr.	49 Scout Mandarin, Quezon City
Dolores Gicaro	69 Times Street, Quezon City
Tala Lazatin	441 S. Apacible, St. Elena, Marikina, Rizal
Antonio W. Diokno	113 Amapola Street, Bel Air Village, Makati, Rizal
Alexander T. Brooks	2 Recoletos Circle, Urdaneta Village, Makati, Rizal
David L. Francisco	26 Seattle Street., Cubao, Quezon City

Seventh. – That this corporation shall be non-stock, as afore-said.

Eighth – That the present members appear in the list attached hereto as “ANNEX A.” Additional members shall be admitted in accordance with the By-Laws.

**IN WITNESS WHEREOF**, we have hereunto set our hands and signed these Articles of Incorporation at the City of Manila, Philippines, this 20<sup>th</sup> day of January, 1969.

(SGD.) DAVID FRANCISCO  
(SGD.) AZUCENA REYES  
(SGD.) ISAGANI DE CASTRO  
(SGD.) ANTONIO W. DIOKNO  
(SGD.) ENRIQUE M. ZALAMEA, JR.  
(SGD.) DANIEL MERCADO, JR.  
(SGD.) ALEXANDER BROOKS  
(SGD.) CONRADO C. ROA  
(SGD.) FELIBERTO CAVOSORA  
(SGD.) MANUEL HIZON

**SIGNED IN THE PRESENCE OF:**

(SGD.) NERIA F. CIRIACO  
(SGD.) JOSE SANTOS

**A C K N O W L E D G E M E N T**

REPUBLIC OF THE PHILIPPINES )  
CITY OF MANILA ) S.S.

On this 20<sup>th</sup> day of January, 1969, before me, a notary public in and for the City of Manila, Philippines, personally appeared:

NAMES	RES. CERT. NO.	DATE & PLACE ISSUED
David L. Francisco	A-90681	01-02-68, Manila
Feliberto Cavosora	A-3599815	01-16-68, Quezon City
Azucena Reyes	A-478719	04-05-68, Manila
Daniel Mercado, Jr.	A-75353	06-05-68, Manila
Isagani de Castro	A-3750083	01-08-68, Makati, Rizal
Antonio W. Diokno	A-3754278	01-11-68, Makati, Rizal
Alexander T. Brooks	A-211877	01-10-68, Manila
Manuel Hizon	A-58114	01-15-68, Manila
Conrado Roa	A-468205	04-03-68, Manila
Enrique M. Zalamea, Jr.	A-4419441	02-15-68, Quezon City

who are known to me to be the persons who subscribed and sworn to before me the foregoing instrument and acknowledged to me that they understood its contents and executed the same as their act and deed.

IN WITNESS WHEREOF, I hereunto set my hand and affix my notarial seal on the date above-mentioned.

(SGD). DELFIN S. RIVERA

NOTARY PUBLIC  
Until Dec. 31, 1979

Doc. No. 478  
Page No. 97  
Book No. 40  
Series of 1969

**CERTIFICATE OF AMENDED ARTICLES OF  
INCORPORATION OF THE ACTUARIAL SOCIETY OF  
THE PHILIPPINES, INC.  
(September 1989)**

We, constituting the majority of the Board of Governors of the Actuarial Society of the Philippines, certify that the attached document is a true and correct copy of the Amended Articles of Incorporation of the Actuarial Society of the Philippines, Inc. incorporating the latest amendments adopted by two-thirds (2/3) of the total number of Fellow members at its Third General Membership Meeting held on August 16, 1989 and by the majority of the members of the Board of Governors at its regular meeting held on August 10, 1989, the amendments being indicated in the attached Amended Articles of Incorporation by underlining the same, and consisting of the following:

Sixth. – That the number of Governors to be henceforth called the Board of Governors, is nine (9) and that the names and residences of the Governors of the corporation who are to serve until their successors are duly elected and qualified as provided by the By-Laws, ...:

In WITNESS WHEREOF, we have hereunto affixed our signature this 14<sup>th</sup> day of September, 1989, Makati, Metro Manila:

(SGD) Leonardo B.J. Tan  
President – Governor

(SGD) Evelyn T. Carada  
Vice-President – Governor

(SGD) Evangeline C. Escobillo  
Secretary – Governor

(SGD) Aida C. Josef  
Treasurer – Governor

(SGD) Ma. Guia B. Cabugao  
Governor

(SGD) Edna G. Ledesma  
Governor

(SGD) Alfonso P. Garcia Jr.  
Governor

(SGD) Odette F. Solis  
Governor

(SGD) Pedro Sen  
Governor

(SGD) Azucena R. Reyes  
Ex-Officio Governor

REPUBLIC OF THE PHILIPPINES )  
CITY OF MANILA ) S.S.

Subscribed and sworn to before me on this 20<sup>th</sup> day of September, 1989 affiants exhibiting to me their residence certificate as follows:

NAMES	RES. CERT. NO.	DATE & PLACE ISSUED
Leonardo B.J. Tan	04664537	02-02-89, Makati
Evelyn T. Carada	07140062-J	02-24-89, Makati
Evangeline C. Escobillo	470345 F	01-18-89, Gen. Santos City
Aida C. Josef	08523903	03-31-89, Marikina
Ma. Guia B. Cabugao		
Edna G. Ledesma	070345 F	02-21-89, Quezon City
Alfonso P. Garcia Jr.	06659433-J	02-01-89, Makati
Odette F. Solis	03434010	04-10-89, Antipolo, Rizal
Pedro Sen	10672638-J	04-11-89, Manila
Azucena R. Reyes	01694744-J	01-13-89, Makati

(SGD). BRIDIE O. CASTRONUEVO

NOTARY PUBLIC  
UNTIL DECEMBER 31, 1989  
P.T.R. NO. 635387, JAN 27'89 MLA.

Doc. No. 106  
Page No. 22  
Book No. 01  
Series of 1989

**BY LAWS OF THE ACTUARIAL SOCIETY OF THE PHILIPPINES, INC**  
**(Revised 2004, Ratified in the 2<sup>nd</sup> General Membership Meeting held June 23, 2004)**

**ARTICLE 1**  
**NAME**

The name of the organization shall be the ACTUARIAL SOCIETY OF THE PHILIPPINES, INC. (hereinafter referred to as the Society).

**ARTICLE 2**  
**PURPOSES**

The objects and purposes of the Society shall be those set forth in its Articles of Incorporation

**ARTICLE 3**  
**OFFICE**

The principal office of the Society shall be located in Metro Manila, Philippines.

**ARTICLE 4**  
**MEMBERSHIP**

Members of the Society shall be classified as Fellow, Associate, Affiliate, and Honorary Member.

- 4.1. Any member in good standing on December 31, 2003 is deemed to have met the requirements for membership in the class under which he was classified.
- 4.2. After December 31, 2003 a person who
  - 4.2.1 makes a written application for membership in the Society;
  - 4.2.2 pays the admission and/or membership fee as prescribed in Section 4.7;
  - 4.2.3 meets the requirements of Section 4.6 pertaining to the class of membership he or she is applying for; and
  - 4.2.4 is recommended by the Education and Eligibility Council;

shall become a member upon approval by the Board of Governors of such application, and ratification by a vote of at least two-thirds of the Fellows present in a regular or special meeting of the Society.

4.3 Notwithstanding the foregoing requirements of Section 4.2, the Education and Eligibility Council may, by a vote of at least a majority of all its members, recommend to the Board the modification of such requirements for a person for whom, owing to special and unusual circumstances, is deemed by the Council that such conditions would be inequitable and unreasonable unless so modified.

4.4 A person who is a member of an actuarial organization designated by the Board to be an affiliated organization, and with which the Society has a reciprocal membership arrangement, shall be qualified to apply as a member of the Society in the class equivalent to his or her designation in that organization, and shall be admitted as a member of the Society, subject to approval of two-thirds of the Fellows present in a meeting where there is quorum. The Board shall designate affiliated organizations, and effect agreements for mutual recognition and reciprocal membership as it may deem necessary, from the list of Full members of the International Actuarial Association.

4.5 The rights, privileges, and benefits of a member shall cease upon termination of membership.

4.6 Qualifications, Rights, and Privileges of a Member

4.6.1 Fellow

- a) A person who has met the eligibility requirements, successfully completed the examination courses required for a Fellow, the Fellowship Admission or Advancement Sessions, and any other education and professional development requirement, given and as prescribed by the Board from time to time and approved by the members of the Society; has worked in the Philippines in the actuarial field for at least one year; and has paid the required admission and/or membership fees, shall be deemed to have met the requirements for Fellow designation, and may apply for membership as a Fellow.
- b) A Fellow shall be entitled to exercise the right to vote, be elected into office, make actuarial certifications when qualified, as provided for in the Insurance Code and/or regulations promulgated by the Insurance Commission and any other government agency that requires such certifications. Only Fellows are authorized to append to their names the initials, F.A.S.P. indicating - Fellow of the Actuarial Society of the Philippines.

4.6.2 Associate

- a) A person who has met the eligibility requirements of the Society for Associates, and/or has passed the examinations and other education requirements prescribed by the Board from time to time, where such requirements have been approved by the members of the Society and announced at a General Meeting and has paid the required admission and/or membership fee may apply for membership as Associate.
- b) Associates may identify themselves or be identified as Associates of the Actuarial Society of the Philippines in any communication where there is certainty that intended recipient of the communication will be fully cognizant of the qualifications and limitations of an Associate of the Society. Under the

same conditions, Associates may append to their names the designation A.A.S.P. or the title Associate, Actuarial Society of the Philippines. An Associate is not entitled to vote.

#### 4.6.3. Affiliate

- a) A person who has met the requirements for Affiliates set by the Eligibility and Education Council, where such requirements are approved by the Board, and has paid the required membership and/or admission fees, may apply for membership as Affiliate.
- b) An Affiliate shall not be entitled to vote.

#### 4.6.4. Honorary Member

This special designation is conferred on a person who has made a substantial contribution to the Society, in the advancement of its aims and objectives. He/she must have been nominated by the Board of Governors, by a vote of two-thirds of all the members thereof. Such nomination by the Board of Governors shall be ratified by a vote of two-thirds of all the Fellows present in a regular meeting of members. Honorary members may attend the meetings of the Society, but do not have the right to vote.

#### 4.7. Fees

4.7.1 Each class of members shall pay such fees as may be established by the Board of Governors. These include a one-time admission fee payable upon admission as member and such annual fees payable not later than March 31 of each calendar year, or on a date as may be prescribed by the Board Members whose classifications change in a given year with a corresponding increase in membership fees shall pay the difference between the fees they have already paid for their previous classifications and the fees for their new classifications within three (3) months after approval of the change in classification. New members of any classification shall pay the fee for the full calendar year, regardless of the date of their admission as member.

4.7.2 The Membership Committee may, subject to the terms and conditions that the Board may prescribe from time to time, waive or defer all or a portion of the fee for a Member who applies for such waiver or deferral in case of situations that the Board considers waiver or deferral appropriate.

#### 4.8. Resignation

4.8.1. A Fellow, Associate, or Affiliate member, who is not in default in payment of fees, and against whom no complaints or charges are pending, may resign by filing a written resignation letter with the Chairperson of the Membership Committee. If the Committee accepts such resignation, it shall become effective as of the date it was approved by the Board of Governors.

4.8.2. Notwithstanding the foregoing, the Board may at its discretion permit the resignation of a member against whom a complaint or charge is pending.

4.8.3. Failure to respond in writing, within three months, to the Society's request for confirmation of the continuation or cessation of the condition, which has resulted in a waiver of fees, will be deemed to be a request for resignation.

#### 4.9 Termination

4.9.1 Three months after notice has been issued to a member of any unpaid annual fees, the membership, in respect of which the fee was payable shall terminate, subject to the review by the Membership Committee.

4.9.2 Membership in the Society may be terminated for cause, after due process, as prescribed in Article 5 with respect to disciplinary matters.

#### 4.10. Reinstatement

The Membership Committee, on written application of any former Fellow, Associate, or Affiliate, whose membership has been terminated under the provisions of the By-laws, may recommend the reinstatement of such Fellow, Associate, or Affiliate, respectively, subject to such conditions as the Committee may prescribe, and approved by the Board.

### **ARTICLE 5 DISCIPLINE**

5.1. The Board of Governors shall have the power to consider and take actions with respect to all questions, which may arise as to the conduct of a member in his/her relations with the Society or its members, or in his/her profession or in the practice thereof, or in any matter affecting the interest of the actuarial profession. In line with this, the Professional Standards and Review Council (PSRC) shall assist the Board of Governors, as provided in Article 9 hereof.

5.2 If it is found that misconduct of one of the members has occurred or that there are sufficient grounds for the imposition of disciplinary measures, the Board of Governors, upon recommendation of the PSRC may warn, admonish, reprimand, suspend, or expel the erring member, subject to the provisions of these By-laws and to the rules promulgated by the Board of Governors on the matter of disciplining members.

5.2.1. Any member of the Society may be subject to disciplinary measures or penalties, including suspension or expulsion, depending on the gravity of the offense, or on any of the following grounds:

- a) Violation of any of the provisions of these By-laws;
- b) Violation of the Professional Code of Conduct of the Society;
- c) Refusal to comply with any of the directives or orders of the Board of Governors or of the Professional Standards and Review Council or of any other committee/body especially deputized by the Board of Governors to enforce disciplinary measures.
- d) Failure to comply with the obligations corresponding to his/her status in the Society.
- e) Commission of any act inimical to the aims of and damaging to the reputation of the Society.

### 5.2.2 Procedure

A member of the Society may be subjected to disciplinary measures or penalties only after being accorded due process during proceedings conducted by the PSRC in accordance with the Guidelines and Procedure for Counseling and Discipline promulgated by the PSRC and approved by the Board of Governors, provided that, if the penalty is suspension or expulsion, such penalty shall only take effect if:

- a) The PSRC recommends by a majority vote of all its members, such suspension or expulsion; and
- b) The Board of Governors, by a two thirds (2/3) vote of its members, approves such suspension or expulsion; and
- c) Such suspension or expulsion is approved by a two-thirds (2/3) vote of all the Fellows present in a meeting especially called for the purpose wherein a quorum is present.

If the penalty is other than suspension or expulsion, it shall be sufficient to impose the same if the conditions in paragraph a) and b), above, are met.

## **ARTICLE 6 MEETINGS**

### 6.1. Meetings of the Board of Governors

#### 6.1.1 Regular Meetings

The Board of Governors shall meet regularly once a month at the day, time and place agreed upon by a majority of the members of the Board of Governors. The Board has the prerogative to ask any member of the Society to be present at any Board meeting.

#### 6.1.2 Special Meetings

The President may call special meetings of the Board of Governors to consider and act upon urgent matters.

### 6.2. Meetings of Members

6.2.1 There shall be a General Meeting of all members of the Society once every quarter at the day, time and place agreed upon by a majority of the members of the Board of Governors.

6.2.2 Special Meetings of the members of the Society may be called by the President or upon the written request of twenty percent (20%) of all the Fellows of the Society, to consider and act upon urgent matters.

6.2.3 The Annual Membership Meeting shall be held not later than the month of November of every year at a date that will be set by the Board. The agenda for the said Annual Membership Meeting shall include matters normally taken up during annual meetings of

organizations. These shall include a report of the activities and operations of the Society, consideration, confirmation and ratification of all acts, and proceedings of the Board of Governors done and taken during the preceding year, and the Election of Officers and members of the Board of Governors for the ensuing year.

6.2.4 Notice of regular meetings shall be communicated in writing or electronic mail to members not later than fifteen (15) days before each meeting. For special meetings, a three (3) day notice shall be sufficient.

6.2.5 Quorum and Voting

a) Meetings of the Board of Governors

A majority of the members of the Board of Governors shall constitute a quorum for the transaction of any business. All decisions of the Board of Governors shall be approved by a majority of its members present in the meeting. Each member of the Board is entitled to one (1) vote.

b) Meetings of Members

A majority of the Fellows registered in the rolls of the Society, who are up-to-date in the payment of annual dues, and who are present or represented by proxy by another Fellow, shall constitute a quorum. A proxy appointment must be in writing, subscribed to by the Fellow making the proxy appointment, and delivered to the Secretary of the Society before the start of the meeting. All matters requiring decision by the Members in a meeting shall be approved by a majority of Fellows present in that meeting. Each Fellow is entitled to one (1) vote.

**ARTICLE 7  
BOARD OF GOVERNORS**

7.1. Powers

The Society shall be governed by a Board of Governors, which shall administer and control the affairs of the Society, subject to the provisions of these By-laws. The Board of Governors may create committees or dissolve them, except those committees specifically mentioned in these By-laws, and confirm or disapprove appointments to the Committees made by the President of the Society.

7.2. Composition

The Board of Governors shall be composed of the incumbent President, Vice President, Secretary, and Treasurer of the Society, and five (5) elected Governors, who shall be elected in accordance with Section 11.2, of these By-laws. The immediate past President of the Society shall sit as an ex-officio member of the Board and shall have voting rights. The President, the Vice President, and the Secretary of the Society shall be Chairman, Vice Chairman, and Secretary, respectively, of the Board of Governors.

7.3. Term of Office and Vacancies

The Members of the Board of Governors are elected with a term of office of one (1) calendar year, or until their successors are elected and qualified. Any vacancy in the membership of the Board of Governors occurring before the following Annual Membership Meeting of the Society shall be filled by appointment by the remaining members of the Board, if still constituting a quorum, from among the Fellows of the Society. Such appointee shall serve only for the unexpired term of the former Governor.

**ARTICLE 8  
OFFICERS**

8.1. Election of Officers and Members of the Board of Governors

During the Annual Membership Meeting of the Society, the Fellows shall elect from among themselves, the following officers of the Society - a President, a Vice President, a Secretary, a Treasurer, and five members of the Board of Governors. To be eligible for election as officer and Governor, a candidate must be a Member who has not admitted guilt nor accepted a recommendation of sanction, or has not been found guilty of an offense in the last five years at the time of election.

8.2. Term of Office and Vacancies

The elected officers shall serve a term of office of one (1) calendar year or until their successors are elected and qualified. Any vacancy occurring before the following Annual Membership Meeting shall be filled by appointment of the President and approved by the Governors sitting in the Board at the time the vacancy has arisen.

8.3. Authorities and Responsibilities of Officers

8.3.1. President

The President shall be the chief executive officer of the Society and shall exercise general supervision over the other officers hereof, and over the administrative staff. He shall see to it that the provisions of these By-laws and the rules and regulations promulgated thereunder as well as the resolutions of the Board of Governors are complied with. He shall preside at all meetings of the Society and the Board of Governors. He shall represent the Society on all occasions and in all matters where it should be represented. He/she shall perform such other duties that the Board of Governors may define from time to time.

8.3.2 Vice President

The Vice President shall be vested with all the powers and authorities required to perform all the duties of the President during the absence or incapacity of the President for any cause. He/she shall perform such other duties as the President or the Board of Governors may assign to him/her from time to time.

### 8.3.3 Secretary

The Secretary, who shall be a citizen and resident of the Philippines, shall keep the minutes of the meetings of the Society and the Board of Governors. He/she shall give or cause to be given all notices required by law or by the By-laws, as well as notices of all the meetings of the Society and the Board of Governors. He/she shall be the custodian of the corporate seal and shall affix the same, attested by his/her signature, to such instruments as may require such seal. He/she shall make and submit reports as may be required of him/her, and perform such other duties as may be assigned to him/her by the Board of Governors or the President from time to time.

### 8.3.4 Treasurer

The Treasurer shall collect all fees and dues from the members as are required under these By-laws and as may be authorized by the Board of Governors. He/she shall receive any and all accounts receivable or dues to the Society from whatever source, take charge of all funds, properties and accounts of the Society, render financial and other pertinent reports periodically and as may be required by the President and/or the Board of Governors. He shall deposit in the name of the Society, in such banks as may be designated by the Board of Governors, all monies, funds and other valuable effects of the Society which may come under his/her control, subject to withdrawal therefrom only upon check or other written demand of the Society signed by said Treasurer and/or other duly designated signatories. The Treasurer may be required by the Board of Governors to post a bond in such amount as the Board may determine.

### 8.3.5 Other Officers

The Board of Governors may appoint the Society's auditor and such other officers, as it may deem necessary with such functions as it may assign.

## **ARTICLE 9 PROFESSIONAL STANDARDS AND REVIEW COUNCIL**

### 9.1 Composition and Qualification of Members

The Professional Standards and Review Council (PSRC) shall be composed of 5 Members who are Fellows. The members of the PSRC are appointed by the Board, who shall elect the Chairman among themselves. The members must have been in the practice of the actuarial profession for at least 10 years, and must possess the following qualities:

9.1.1 Possess the highest degree of integrity and impeccable reputation;

9.1.2 Show continuing interest in the affairs of the Society;

### 9.2. Term of Office

The initial members of the PSRC shall be appointed for the terms of one, two, three, four and five years. Thereafter, the appointments of new members to replace a member whose term expires shall be made by the incumbent Board for a period of five (5) years. When a member fails to

serve a full term resulting in a vacancy in the PSRC, the successor appointed to replace him/her shall serve the unexpired portion of the term.

9.3. Duties of the Professional Standards and Review Council shall be the following:

9.3.1 To provide interpretative opinions on the Standards of Practice, with the assistance of the Eligibility and Education Council, affecting the Code of Conduct and the Interpretations and Recommendations thereto, and to present recommendations to the Board concerning the repeal, enactment and implementation, alteration of, or addition to the Code of Conduct and the Interpretations and Recommendations on the Code of Conduct;

9.3.2 To ensure the adequate communication of any rules of professional conduct and standards of practice to the members, and when deemed prudent and necessary, to regulatory and judicial bodies of the government, and members of the public;

9.3.3 To review and/or amend the Interpretations on the Code of Conduct and the Standards of Practice with the assistance of the Eligibility and Education Council, and to endorse and publish in draft form the proposed new Interpretations, after providing a sufficient period of time, the length of which shall be set at its sole discretion, for review and commentary by the members. Following the period of time provided for review and commentary by the members, the PSRC shall proceed to endorse the proposed Rules of Professional Conduct and Standard of Practice and/or its modifications for approval by the Board;

9.3.4 To conduct Fellowship Advancement Sessions on professional ethics and standards of practice, at least twice a year, or more often as may be needed;

9.3.5 To receive, hear and investigate any complaint relating to the conduct of a member, and/or investigate, at its own initiative, questions, which may arise as to the conduct of a member, and;

9.3.6 To submit to the Board of Governors the results of any investigation it may undertake together with recommendations on actions to be taken.

9.4 Review of a Newly Adopted Standards of Practice

If a petition is signed by at least 10% of the Fellows and delivered to the President within ninety (90) days from adoption of newly adopted standards of practice by the PSRC, the Board shall review the Standards of Practice, as it deems appropriate. The review by the Board shall be completed within ninety (90) days after the receipt of such petition. Thereafter, the Board, upon receipt of a petition by at least 10% of the Fellows, may confirm, alter, or annul the Standards of Practice, subject to ratification by two-thirds (2/3) of the Fellows present during a meeting wherein a quorum is present. In all cases, the Standards of Practice, as promulgated by the PSRC, shall remain in force from the date of adoption until revised as ratified by the Society. The Board shall notify the petitioners of the decision taken within a reasonable period of time.

9.5 Conflict of Interest

Where the matter being taken up in an investigation by the PSRC affects one of its members, such member shall not participate in the deliberations thereon. In such event, the Board of Governors

shall appoint a substitute from among the members of the Society to participate in the deliberations for such matter only.

## **ARTICLE 10 EDUCATION AND ELIGIBILITY COUNCIL**

### 10.1. Composition and Qualification of Members

The members of the Eligibility and Education Council (EEC) shall be composed of 5 Fellows who have been in the practice of the actuarial profession for at least 5 years, and who shall be appointed by the Board of Governors.

### 10.2 Term of Office

The Board of Governors shall initially appoint 5 members to the EEC with terms of office from one to five years. Each year thereafter, one new member will be appointed to replace the outgoing member for a term of five years.

### 10.3 Duties

The Council shall have the following duties and responsibilities, among others that may be prescribed to it by the Board.

10.3.1 To design and update the education and eligibility standards, and the examination syllabus in accordance with international best practices;

10.3.2 To define and enforce the eligibility and qualification requirements for admission of members;

10.3.3 To validate courses and seminars attended by the Members, with respect to the prescribed actuarial subjects, where such are used as bases for the education or examination of the actuary;

10.3.4 To develop a program of continuing education for the advancement of the knowledge of Fellows and Associates and to design a system for encouraging participation in the program and for monitoring such participation;

10.3.5 To assist the Professional Standards and Review Council in the development of the Standards of Practice in all areas of actuarial practice, and in rendering interpretative opinions of such Standards of Practice.

Such recommendations or actions as may be done by the Council in accordance with Sections 10.3.1 to 10.3.5 shall be implemented subject to the approval of the Board.

**ARTICLE 11  
NOMINATIONS COMMITTEE**

11.1 Composition

At least 13 weeks before the Annual General Meeting, the President shall appoint two members, not necessarily Fellows, to constitute a Nominations Committee under his Chairmanship.

11.2 Duties

The Nominations Committee shall have the following duties:

11.2.1 It shall be responsible for preparing the rules and procedures for the conduct of elections, not in conflict with these By-laws and the Corporation Law, and for the actual conduct of the elections during the Annual General Meeting;

11.2.2 It shall be responsible for conferring with the Fellows of the Society for the purpose of drafting a list of candidates who have agreed to stand for election as officer or governor of the Society, and to ascertain that the qualifications of the candidates are in accordance with the By-laws.

**ARTICLE 12  
PERMANENT COMMITTEES**

The following permanent committees shall be organized as soon as practicable after the annual election of officers. The Board may create other committees as may be needed to implement the Plans and Programs of the Society in each year. The Board may also dissolve such other committees when not needed, as recommended by the President of the Society.

12.1 Examination Committee

The Examination Committee shall be composed of a chairman, and the examiners for all the examinations given by the Society. The Chairman shall be a Fellow and appointed by the President. The examiners for each examination shall all be Fellows of the Society, who shall be selected by the Chairman and recommended to the Board of Governors for approval. The objectives, functions and authorities of the Examination Committee shall include among others, the following:

12.1.1 Prescribe the study materials for each examination.

12.1.2 Prepare the set of questions for each course examination.

12.1.3 Prepare and publicize the Examination Catalogue, and arrange for the venue and schedule of all examinations.

12.1.4 Promulgate the rules and procedure for the conduct of the examinations.

12.1.5 Recommend to, and secure the endorsement of the Eligibility and Education Council for the passing score for each examination.

12.1.6 Implement the syllabus or coverage of the course examinations as recommended by the Eligibility and Education Council, and approved by the Board of Governors.

## 12.2 Programs and Arrangements Committee

The Chairman of the Program and Arrangements Committee for the year shall be the Vice President. The Vice President shall appoint the members of the Committee from the list of Fellows, Associates and Affiliates of the Society. The objectives and functions of the Committee shall include the following:

12.2.1 Organize and arrange all annual general meetings of members and the Annual Convention and Annual Membership Meeting of the Society.

12.2.2 Coordinate and arrange all seminars, sessions, workshops, and symposia proposed by the Councils and Committees, and approved by the Board of Governors.

## 12.3 Membership Committee

The Membership Committee shall be composed of the immediate past President, as the Chairman, and two Fellows as members. The objectives, functions, duties and authorities of the Committee shall include the following:

12.3.1 Formulate the rules for admission, resignation, and reinstatement of membership in accordance with the By-laws.

12.3.2 Receive and evaluate applications for admission or reinstatement of membership in the Society, or for changes in membership classification and to forward the same, together with its recommendations, to the Board of Governors for approval.

12.3.3 Implement a monitoring system for the continuing education of members, in coordination with the Eligibility and Education Council, as approved by the Board.

## 12.4 Records, Library, and Proceedings Committee

The Records Library and Proceedings Committee shall be composed of a Chairman who shall be appointed by the President. The Chairman shall appoint the members of the Committee, which shall be composed of the Office Secretarial Staff, and other Fellows, Associates or Affiliates of the Society. The objectives and functions of the Records, Library and Proceedings Committee shall include the following:

12.4.1 Keep records of all minutes of Meetings of the Board of Governors, and Annual General Meetings of Members of the Society, and implement a disposal schedule of the same, as approved by the Board.

12.4.2 Keep records of the test questions of the examinations and their results in such forms that will minimize storage space.

12.4.3 Publish the Proceedings of the Society containing the papers presented during the Annual Convention, and the corresponding discussions, in hard copy, or in such forms that will minimize storage space.

12.4.4 Keep files of study notes, books and references used or being used by Members for review and research.

## 12.5 Public Relations Committee

The Public Relations Committee shall be composed of a Chairman who shall be a Fellow of the Society and such other members who shall be recommended by the Chairman and approved by the Board. The following shall be the objectives and functions of the Public Relations Committee:

12.5.1 Promote the image of the Society and of the profession to the general public, including the regulatory bodies, the legislature and other public offices, which use or may use the services of an actuary.

12.5.2 Promote the profession of the actuary in the colleges and universities, which have actuarial programs or are planning to introduce actuarial courses in their curricula.

12.5.3 Perform such other activities related to external relations as may be assigned to it by the Board of Governors.

12.5.4 Attend hearings on legislation and other matters affecting the actuarial profession, with other invited members of the Society who can contribute to the purpose of said hearings.

## **ARTICLE 13 PROTECTIVE PROVISIONS**

13.1 A member shall not have any lawful complaint or cause of action against the Society, the Board, any Committee, Council, President, or any officer or member, by reason of anything done or omitted to be done, or any other matter or thing in respect of any complaint of professional conduct, investigation inquiry, charge of professional misconduct, hearing, report, direction, decision, order, notice or publication made or done in good faith under Article 5 of these By-laws.

13.2 Any member who, as a result of involvement in any way with the activities of the Board, Professional Standards and Review Council, an investigation team, disciplinary tribunal, or any task force, obtains confidential information previously unknown to the Member or Associate, shall not use or disclose any such information except in the discharge of the member's duties and responsibilities arising from such involvement, or unless required by law to do so.

**ARTICLE 14  
PUBLIC PRONOUNCEMENTS OF OPINION**

The Society may make public pronouncements of opinion on matters within the competence of actuaries, provided that the subject or issue has an important actuarial element or component and the public opinion, expressed is primarily actuarial in its content. Such public pronouncements shall be made in such manner and upon such terms and conditions as the Board may determine from time to time.

**ARTICLE 15  
CORPORATE SEAL**

The corporate seal shall be in such form as shall be approved by the Board of Governors and shall contain the name – Actuarial Society of the Philippines.

**ARTICLE 16  
AMENDMENTS**

These By-laws may be amended or repealed in whole or in part, upon the recommendation of the majority of all the members of the Board of Governors, and by the affirmative vote of the majority of the Fellows present at any regular or special meeting especially called for the purpose, or by the written assent of the majority of the Fellows. The power to repeal or amend these By-laws may be delegated to the Board of Governors in the manner provided by the Corporation Code of the Philippines.

## 2008 OFFICERS AND BOARD OF GOVERNORS

President	Maria Edita C. Elicaño, FASP
Vice President	Maria Asuncion D. Martin, FASP
Secretary	Rina Isabel A. Velasquez, FASP
Treasurer	Peter Godfrey C. Darwin, FASP
Board of Governors	Maria Elena B. Herrera, FASP (EX-officio) Edna G. Ledesma, FASP Orlando J. Manalang, FASP Lyndon F. Fadri, FASP Seraline L. Manguni, FASP Lucia Chona S. Ventura, FASP
PSRC Chairman	Mona Lisa B. dela Cruz, FASP
EEC Chairman	Maria Victoria Lim, FASP

*The 2008 Officers and Board of Governors*



*(L-R): Peter Godfrey Darwin, Purificacion G. Cabral, Maria Asuncion D. Martin, Maria Edita C. Elicaño, Rina Isabel Velasquez, Lucia Chona S. Ventura, Seraline L. Manguni, Lyndon F. Fadri*

## 2008 COMMITTEES

<b>Committee</b>	<b>Governor-in-Charge</b>	<b>Chairpersons</b>
Programs & Arrangements	Maria Asuncion D. Martin	Jason Joseph Mariano Janice Barrantes Mariette Ann Yu
Examinations	Lucia Chona S. Ventura	Conrado de la Cruz Charline Chan
Professional Development	Lyndon F. Fadri	Ronnie M. Mirandilla
Membership	Maria Elena B. Herrera	Maria Elena B. Herrera
Life Insurance & Health Care	Seraline Manguni	Damaso Niño Careng
Library, Records, Proceedings & PR	Rina Isabel A. Velasquez	Rina Isabel A. Velasquez
Website	Lyndon F. Fadri	Francis Ortega
Employee Benefits	Orlando Manalang	Orlando Manalang
Regulation & Taxation	Edna Ledesma	Katerina Suarez
Pre-Need	Maria Edita C. Elicaño	Maria Edita C. Elicaño
Sports and Socials	Maria Asuncion D. Martin	Jose Paolo Carlos

### **Professional Standards and Review Council**

Chairman	Mona Lisa B. dela Cruz
Members	Ernesto Reyes Coralyn del Rosario Evelyn Carada Henry Joseph Herrera

### **Education and Eligibility Council**

Chairman	Maria Victoria Lim
Members	Lope Jose Garde Jaime Santiago Reynaldo Centeno Victor Tanjuakio

### **Nominations Committee**

Chairman	Maria Edita Elicaño
Members	Seraline Manguni Jocelyn Reyes

## ASP SECRETARIAT

Office Manager: Anne Macasaet

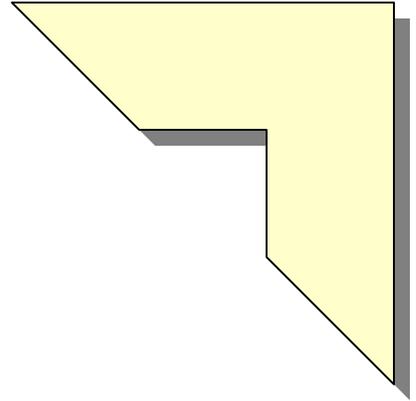
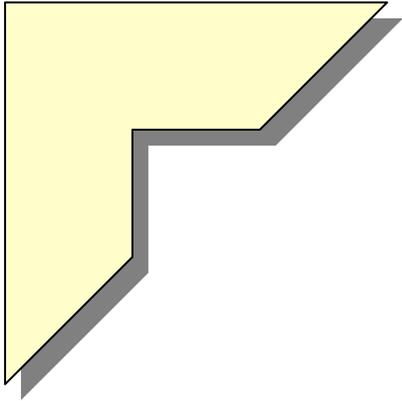
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Email Address: [actuarial@pltdsl.net](mailto:actuarial@pltdsl.net)



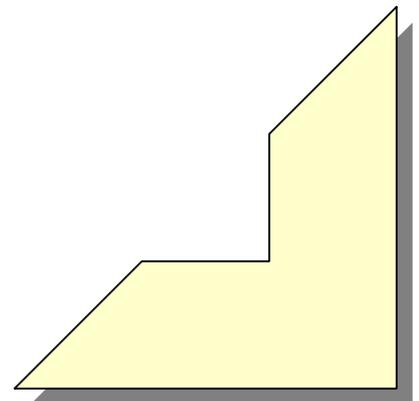
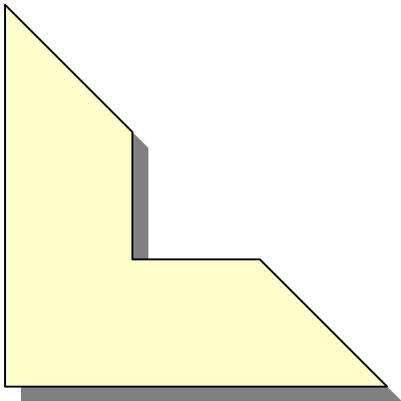
## **SECTION II: CODE OF CONDUCT**

Code of Conduct

Interpretations and Recommendations on the Code of Conduct

Public Expression of Professional Opinion

Guidelines and Procedures for Counseling and Discipline



## **CODE OF CONDUCT** **(Amended August 2000)**

In order to assist the Society in achieving its objective, and more importantly to guide members of the Society when they encounter questions on professional conduct, the following “Code of Conduct” has been prepared by order of the Board of Governors and approved by the Society. As is true of codes of ethics, generally, these guides deal with precepts and principles only. They are not precise rules and are subject to interpretations in relation to the variety of circumstances that occur in practice. Any member wishing guidance in the application of these guides to a particular set of facts is urged to consult the Professional Standards and Review Council of the Society.

It is assumed that every member of the Society earnestly desires to serve his client or employer properly, to protect the public, and to maintain the prestige of the Society and its members. Accordingly, the following principles are set forth by which every member should be guided in his practice of the actuarial profession:

### **I. Professional Duty**

1. All activities of a member in the practice of the actuarial profession must conform with high standards of honesty and decency and with the general requirement that public confidence in the actuarial profession does not suffer as a result, and that there can never be any ground for doubt about the integrity of the member concerned.
2. A member will not provide actuarial service for, or associate professionally with, any person or organization if he has reason to believe that the results of such service or association are likely to be used in a manner inimical to the public interest or the interest of the actuarial profession or to evade the law.
3. A member who is connected with, or is a consultant of any government agency or regulatory body, or serves in any other official capacity therein shall not accept any engagement for professional services with any company or association organized to conduct business that falls under the supervision of the said agency or body where he may have to intervene in matters arising from the aforementioned engagement of professional services.

### **II. Actuarial Principles and Practices**

1. A member will give professional advice only when qualified to do so. The member will submit unqualifiedly an actuarial calculation, certificate, or report only if he knows it to be based on sufficiently reliable data and on actuarial assumptions and methods that in his judgment, are consistent with the sound principles expounded in the course of study of the Society or in recognized texts, sources or precedents relevant to the subject at hand. Where the Society has officially issued or adopted standards of actuarial practice applicable to the particular field that a member’s services were engaged, the member shall apply such standards, and take into account the related guidelines issued or endorsed by the Society. If the member believes that other expert review is also desirable, his submission should include appropriate qualification of his findings.

2. A member will recommended for the use of his client or employer, premium or contribution rates, dividends, standards of valuation, or other related actuarial functions only if, in his opinion, they are based on adequate and appropriate assumption and methods. If, nonetheless, other assumptions or methods are specified by the client or employer, the member will include a qualification thereon in any applicable certification, communication or report which he may be called upon to issue in his name.

### III. Actuarial Calculations and Communications

1. In any report or other actuarial communication quoting actuarial values, the actuary shall make a statement describing or clearly identifying the data and the actuarial methods and assumptions used.
2. The member shall exercise due diligence to ensure that calculations or recommendations made or opinions rendered by the member or under the member's direction, are based on sufficient and reliable data. Where the data were not readily available, the member should specify other sources and approximations that were employed, qualifying the adequacy and appropriateness thereof. The member shall also describe the methods employed, qualifying their consistency with "sound actuarial principles and practices established by precedence or common usage by the actuarial profession in comparable jurisdictions." If the member chooses, or is requested to prepare a study which, in the member's opinion, deviates from common practice, his/her report or other actuarial communication shall include an appropriate and explicit qualification.
3. The member shall have due regard to the requirements of the laws and rules and regulations, recognizing their intent with respect to the specific publics for they were formulated.

### IV. Relationship with and Responsibility to Client or Employer

1. A member will act on professional matters for each client or employer with scrupulous attention to the trust and confidence that the relationship implies and will have due regard for the confidential nature of his work.
2. A member will indicate clearly in communicating professional findings to the client or employer for whom findings are made and in what capacity the member serves. He will also clearly indicate that he is the source of such findings and is available for supplementary explanations or information.
3. A member will not serve more than one client or employer where possible conflict of interest may be involved unless there is full disclosure to all parties concerned, and such parties agree to the engagement of his services.
4. A member shall timely disclose in writing to his client, all sources of income related to any service he is rendering on behalf of the client.

V. Relationship with Other Actuaries

1. A member will conduct his professional activities on a high plane. He will avoid unjustifiable or improper criticism of others and will recognize that there is substantial room for honest differences of opinion on many matters. However, if in the course of his work he finds that serious misconduct harmful to the public and the profession was committed by another actuary, he is expected to refer such misconduct to the Professional Standards and Review Council for its consideration and recommendation.
2. When a member is asked to take on professional services previously provided by another actuary, he shall consider whether it is appropriate to consult with the previous actuary to ensure that is suitable for him to take on this new responsibility.

VI. Advertising

1. A member will not engage directly or indirectly in any advertising or other activity which can reasonably be regarded as being likely to attract professional work in a deceptive manner, or where the content is false, fraudulent, misleading or unprofessional.

VII. Titles and Designations

1. A member may not append to his signature the designation “Actuary”, “Fellow of the Actuarial Society of the Philippines”, or “F.A.S.P.” or other equivalent titles unless he is so accredited. The member may not use a designation dependent upon elective or appointive qualification within the Society, such as “President”, “Member of the Board of Governors”, or “Member of the Examination Committee”, unless he is acting in such capacity in behalf of the Society.

## **INTEPRETATIONS AND RECOMMENDATIONS ON THE CODE OF CONDUCT (Amended August 2000)**

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*Editor's Note:* In this copy, references to the ASP By Laws have been updated.

This supercedes the following Interpretations issued before February 10, 1999:

- Interpretation No. 1-91: Use of Titles and Designations (1991)
  - Interpretation No. 2-91: Qualification to Give Advice (1991)
  - Interpretation No. 3-93: Responsibility with Respect to Reports (1993)
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### Introduction

The interpretations and recommendations were the result of the workshops conducted among the Fellows of the Actuarial Society of the Philippines. Interpretative opinions from other actuarial organizations, principally from the American Academy of Actuaries, when appropriate, were also used to complete the interpretations and recommendations.

The interpretations were groups under the six principal sections of the Code of Conduct and are coded using two letters to identify the section. When referring to a specific interpretation or recommendation, the letters will identify the section, such as PP for Actuarial Principles and Practices, and the number following identify the particular paragraph being referred to. For example, PP2 refers to Actuarial Principles and Practices covering assumptions.

This set of interpretations incorporates, hence supercedes interpretations issued before February 10, 1999.

### **PP:** Actuarial Principles and Practices

1. A member of the Actuarial Society of the Philippines (ASP) is qualified to give professional advice on a particular subject that is covered by the syllabus of the examinations of the ASP, when he is a Fellow of the ASP. He must also have working experience in the subject or field where he is to give professional advice; and he must have participated in continuing education seminars of the ASP on the subject or related subjects. The term 'subject', as defined by this interpretation, includes the following principal areas of focus of the course examinations:
  - a) pricing of products and valuation of liabilities in life insurance and pre-need;
  - b) determination of non-forfeiture values in life insurance and pre-need;
  - c) distribution of surplus in life insurance;
  - d) design and valuation of retirement plans;
  - e) pricing of group life, health and accident insurance; and
  - f) valuation of liabilities in a social insurance program, and design of the corresponding financing system.

Other subjects in the examination syllabus can be the subjects of professional opinion from a Fellow of the ASP, but the opinion shall be limited to the scope covered by the examination syllabus. If the

actuary is invited to give advice on a subject beyond the scope covered by the syllabus, he may do so provided he has undertaken research and/or professional consultation on areas of the subject where he has had limited training or experience. The advice should be given only after a disclosure of his limitations to the client, and/or by disclosing any professional assistance he has utilized in undertaking the assignment.

Where accreditation is a requirement for rendering actuarial advice, for making recommendations, or for issuing certifications or reports, a member shall not accept such assignment unless he is so accredited.

2. Adequate and appropriate assumptions mean that they are based on the actuary's best assessment of future events formed from the historical experience of the case at hand, or from experience derived from other cases that are comparable. If the assessment is based on experience derived from other cases, a qualification statement should be made, justifying the applicability of the assumptions.
3. In the absence of standards of actuarial practice officially adopted by the ASP, the actuary shall exercise his best judgment in selecting what standards to use. Standards of actuarial practice in other actuarial associations that are members of the International Actuarial Association may be used as bases, provided that there are accompanying justifications that those standards are compatible with the specific situation.
4. An actuary shall issue a certification specific to a subject, and only on the work that he has done. He should avoid statements of generalization. General opinions as to "actuarial soundness" should be avoided, wherever possible, because "actuarial soundness" is neither an absolute nor a unique concept, and must be considered in relation to the specific problem and the accuracy with which future experience can be predicted. When a statement of adequacy is to be made, usually for a given financing arrangement, the opinion to be given should be with respect to specifically defined objectives, assumptions or requirements.
5. The statement of opinion on pricing of a financial product should disclose the bases of the assumptions and justifications for such assumptions. In preparing the certification, the actuary should be guided by the Guidelines issued by the ASP. He should not limit the statement to the minimum requirements of any sample certification issued by the regulatory agency.
6. The waiving of the fee for professional services either partially or totally does not relieve the actuary of the need to observe professional standards.

**RC:** Relationship with and Responsibility to Client or Employer

1. An actuary who is employed in a company should consider that his client is not just the company that employs him. He also has as client, the government regulator for the activities of his company, especially in the Philippines where the actuary is accredited by the government regulator. In case the actuary is employed with, or is a consultant of an insurance company, the policyholder is also his client, by virtue of the fact that the regulator exists principally to protect the policyholder. In a similar case, the planholder is also a client of the actuary if he is an employee or consultant of the pre-need company. An actuary who is self-employed and in the practice of consulting in a particular field, has for clients the general public who uses his services and the government regulating agency that accredits him to practice in that field.

2. Need for confidentiality and conflicts of interest can always arise in the performance of professional services. The need to keep confidential information will not usually be difficult to determine. Confidentiality has a specific meaning that professionals have good appreciation in particular situations and for particular services rendered. However, in case of doubt about when to treat work performed by the actuary as confidential, the opinion of, or clearance from the client should be solicited.
3. Conflict of interest is usually present when the actuary's ability to act fairly to all his clients is impaired. In case of doubt whether a conflict exists, a query may be sent to the PSRC for opinion. Certain assignments give rise to conflict of interest situations when several clients engage the services of the actuary to do the same or similar assignment. Even in assignments that are not similar, there is a conflict of interest when the actuary receives compensation from two clients, and there is a relationship or potential relationship between the clients that arises or will arise from the task that the actuary has done for each of them. The actuary should resolve conflicts of interest by clearly disclosing in writing to each party who is affected, that he is on assignment with another client or clients, and that he receives income for the service he is rendering. The actuary is advised to obtain the agreement of each client to this kind of multi-engagement.
4. If the service requested by a client or employer conflicts materially with the actuary's professional judgment, the actuary should advise the client or employer of the conflict and should include appropriate qualifications or disclosures in any related actuarial communication.
5. When an actuary acts, or may seem to be acting, as advocate for a client or employer, the nature of that relationship should be disclosed directly to interested parties. The actuary should support the position of the client or employer only to the extent that he is satisfied that the position is professionally supportable, recognizing that honest differences of opinion may exist. The actuary's professional judgment should not be subordinated to the judgment of others.
6. Actuaries in the Philippines are accredited to practice the actuarial profession in insurance, pre-need and retirement plan valuation, by the respective government agencies which regulate the financial service that falls under that government agency's supervision. The act of accrediting a Fellow of the ASP by a government agency delegates to the ASP the responsibility to qualify the applicant for accreditation and to impose adherence to appropriate standards of conduct and practice on the members accredited by that government agency. In the performance of professional work, whether as consultant or employee of a company, the accredited actuary is to be guided by the Code of Conduct, as well as its Interpretations and subsequent amendments.
7. There are tasks done by the actuary that he certifies for a regulator, where independence is required; for example, in the valuation of retirement plans for tax qualification. The following are examples where there is violation of the requirement for independence:
  - a) The actuary is an employee of the company whose plan he is certifying.
  - b) The actuary is an employee or partner of the external auditor of the company.
  - c) The certifying actuary is an employee of the trustee, or investment manager of the retirement fund, or related to the trustee through their companies being related, by direct or indirect ownership or management control.

When the actuary is an employee of a company, and he certifies a retirement plan of another company, which is related by direct or indirect ownership to the actuary's employer, independence may be questioned.

An actuary, who is an employee of a life insurance company in the business of selling Deposit Administration (DA) schemes, may certify for a client, the valuation of a retirement plan, which is not a DA, for the purpose of tax qualification. However, he should disclose this act to his employer and his client.

8. In resolving questions of conflict of interest involving “clients”, the actuary should take as general guide, the declarations in the Society’s Code of Conduct regarding his professional duty to render service in the following manner:
  - it is not inimical to the public interest,
  - does not evade the law,
  - does not provide any ground for doubt about his integrity, and
  - it is not inimical to the interest of the actuarial profession.

**RA:** Relationship with Other Actuaries

Basis of Interpretations:

Much of a professional’s knowledge comes from what has been contributed to the profession by others before him. However, this knowledge does not cease with the past. There must be continual interchange of information and opinion, which enriches the total knowledge within the profession. Through professional articles and speeches, members of a profession contribute their knowledge to the improvement of the group. Such cooperation is essential so that the whole profession may keep up with the rapid changes of the business world and the demands of the profession. An individual actuary’s particular experience must be augmented by what is provided by others in the profession in order to develop further knowledge of the theory and techniques of the profession. Thus there is the necessity, as well as the desirability, of cordial relations and mutual confidence among the members of a profession. This contributes to the advancement of the profession and to the improved quality of its service to its clients. Competence and concern for clients require that a professional be ready to refer work to specialists or consult with them, where appropriate.

1. Opinion on Disagreement and Differences of Opinion:

Differences of opinions among actuaries may arise, particularly in choices of assumptions and methods. It is expected that discussion of such differences, whether directly between actuaries or in observations made to a client by one actuary on the work of another, will be conducted objectively and with courtesy.

In the course of employment or an engagement, an actuary may encounter a situation where he could better serve the interest of the employer or client if he renders an alternative opinion to that expressed by the other actuary. He can do so with an explanation of the factors, which lend support to the alternative opinion. Paragraph IV.1 of the Code should not be construed as preventing the actuary from expressing such alternative to the employer or client.

If the actuary believes that incompetence or misconduct on the part of another actuary has engendered a material difference of findings, the procedures set forth in Article 5 of the ByLaws of the Actuarial Society of the Philippines should be invoked. Charges of incompetence or misconduct should not be circulated except in private communication to appropriate legal authorities or to those in the

profession charged with supervision and judgment of such matters, unless such violations have already been publicly stated by those authorities.

## 2. Responsibility of Actuary if Illegal or Unprofessional Acts by Another Actuary is Suspected.

An actuary may have reason to suspect that another actuary may have acted illegally or unprofessionally or may have otherwise engaged in misconduct in the course of professional activity. In such cases, the actuary should confer with the PSRC, and if considered appropriate, the procedure set forth in Article V of the Bylaws, on discipline, should be invoked. In some cases, the issue may be a matter of law as well as of ethics. An actuary faced with such a case should consider seeking legal counsel. His action may bring the possibility of a defamation suit; while his inaction may bring civil charges.

Ethical conduct is not defined solely by admonitions and prohibitions, but requires commitment to honorable behavior even at the possible sacrifice of personal advantage or convenience.

## 3. Change of Actuary or Appointment of Additional Actuary

An actuary may provide service to any principal (any present or prospective client or employer) who requests it, even though such principal may be served by another actuary for the same matter, or may succeed another actuary at the request of the principal. A principal has an indisputable right to choose a professional adviser. A principal may have legitimate reasons to change advisers or to retain more than one adviser for the same matter. The purpose of a new appointment may not always be above criticism, however, and an existing adviser's freedom to fulfill an engagement in a professional way must be safeguarded.

Accordingly, if an actuary is invited to advise a principal, and he knows that another actuary has recently acted in a professional capacity with respect to the same matter, it would be a matter of professional courtesy and a prudent procedure to consult the other actuary to prepare adequately for the assignment and to make an informed judgment whether there are professional considerations, which might affect acceptance of the assignment.

The prospective new or additional actuary should request the principal's consent to such consultations. The withholding of such content could be a material factor affecting the propriety of accepting the appointment. In such consultations, the relevant items to discuss include the following:

- a) pertinent background and past history with respect to the assignment;
- b) the reasons for the change of actuary;
- c) any disagreements between the principal and the other actuary as to matters of actuarial concern; and
- d) whether there are any professional reasons why the invitation should not be accepted.

Professional reasons include:

- the difficulties that acceptance might give rise to, such as any actuarial problems that have arisen because of the condition of the principal's records;
- facts that might have a bearing on the principal's judgment or integrity; and
- any actuarial matters that have required an inordinate amount of time in the past.

The proposed new or additional actuary should give weight to any such information before deciding whether to act.

When the principal has given consent to such discussion, the original actuary should cooperate in making available relevant information, provided the terms of cooperation are made clear and agreed upon, such as compensation to the original actuary. Such information would include any pertinent data and documents but need not include any items of proprietary nature.

The original actuary must not, without the consent of the principal, disclose to the new or additional actuary any information, which might involve the principal's confidential affairs.

**Ad:** Advertising

Advertising encompasses all communications, including oral communications, which may directly or indirectly influence any person or organization to decide whether there is need for actuarial services and to select a specific person or firm to perform actuarial services.

The intent of the Code is to discourage advertising that contains any statement or claim which is false, fraudulent, misleading or deceptive. It is not the intent to discourage advertising which serves the public by conveying information that is likely to be useful in deciding whether the services of any actuary are needed, and to select an actuary to perform the needed services.

A. Examples of acceptable forms of advertising:

- (1) Advertising for the purpose of improving public understanding of actuarial services and of the availability of actuaries to perform such services.
- (2) A list of names of actuaries and their professional qualifications and/or biological data and describing the kinds of actuarial services that each can provide.
- (3) A statement of policy or position related to the practice of actuarial science or on a subject of public interest.
- (4) Announcements of promotion of actuaries, or changes in personnel or affiliation, or change of address.
- (5) Announcements of the sale or distribution of books, or other work of the actuary or the actuary's firm.

B. Examples of unacceptable forms of advertising:

- (1) Advertising that falsely states or suggests that the services offered by another actuary are inferior to, or more expensive than, comparable services offered by the advertiser.
- (2) Advertising that contains statements of subjective opinion, unless clearly declared as such, and those that create expectation of favorable results than an actuary with relevant experience would know to be unjustified.
- (3) Advertising that deliberately underestimates the fees the actuary intends to charge for a specific assignment; or, describes the basis of charges without disclosing any additional factors which may result in additional costs to the client.

- (4) Advertising that offers actuarial services at reduced rates, without disclosing that the cost of these services is included in whole or in part in the cost of other services or products provided to the client, either by the actuary or by another person or organization with whom the actuary has a direct or indirect financial affiliation.

Advertising that relates to professional actuarial services, which emanates from a client, employer, or other affiliate of the actuary, and which may result in personal advantage to the actuary, will be presumed to have been used on behalf of, and with the knowledge and consent of, the actuary. The actuary shares the responsibility for such advertising.

**TD: Titles and Designations**

1. A member may refer to designations dependent upon elective or appointive qualification within the Society, such as an officer or a committee chairperson, in biographical material of any type, including material in a book or article written by a member in published material.
2. A member may use such biographical material when announcing a member's promotion or change in employment or on any similar occasion. The ultimate test is whether the reader could be led to conclude that the member is speaking for the office or committee.
3. A member may use such designations in the Society when giving testimony in a court of law or before a public body, provided it is made clear that the member does not speak for the office or committee unless specifically authorized to do so.
4. Fellows or Associates shall use the title **Fellow** or **Associate** when referring to their qualification as well as membership in the Actuarial Society of the Philippines, as in the following examples:

Pedro R. de la Cruz, F.A.S.P., *or* **Fellow**, ASP, *or* **Fellow**, Actuarial Society of the Philippines  
(followed by the Company title, such as – Vice President and Actuary)

Ma. Ana G. Santos, A.A.S.P., *or* **Associate**, Actuarial Society of the Philippines  
(followed by the Company title, such as – Manager and Assistant Actuary)

“Member of the Actuarial Society of the Philippines” shall not be used by a Fellow or Associate when referring to their affiliation with the Actuarial Society of the Philippines.

5. An Affiliate of the Actuarial Society of the Philippines, if given an actuarial title by his or her employer, such as Assistant Actuary, may use the title only in official communications strictly for his employer and involving only his work with such employer. He shall not add any references to the Society, such as – “**Member**, Actuarial Society of the Philippines” or “**Affiliate**, Actuarial Society of the Philippines”.

## **PUBLIC EXPRESSION OF PROFESSIONAL OPINION**

(November 1994)

No opinion shall be publicly expressed by or on behalf of the Actuarial Society of the Philippines except on matters within the special professional competence of actuaries and then only if such opinion has been approved by a majority of all the members of the Board of Governors.

A member of the A.S.P. who wishes to express a professional opinion in his individual capacity may do so without obtaining prior clearance from the Board of Governors, provided that it is published with his name and under his own accountability.

## **GUIDELINES AND PROCEDURES FOR COUNSELING AND DISCIPLINE (Amended April 1998)**

In accordance with the objective of the Actuarial Society of the Philippines (ASP) to continuously develop professionalism among its members, the Professional Standards and Review Council (PSRC) has prepared the following set of guidelines and procedures to help members understand the standards of professional actuarial practice as articulated in the Principles of Actuarial Science of the Society of Actuaries published in TSA volume XLIV.

The PSRC can provide counseling to the members of ASP by responding to their inquiries and requests for guidance. It can also conduct investigations and make recommendations on matters of disciplining members who violate the Code of Conduct of ASP.

A part of these guidelines and procedure was patterned after those of the Rules of Procedure for Counseling and Discipline of the Actuarial Board for Counseling and Discipline (ABCD) of the American Academy of Actuaries.

### **1. REQUEST FOR GUIDANCE AND INQUIRIES**

- 1.1 The PSRC may accept and respond to inquiries and request for guidance from the members of the ASP (hereinafter referred to simply as “members”). Any member wishing to obtain guidance from the PSRC on the applicability of the Code of Conduct of ASP (hereinafter referred to as the “Code”) or its interpretative provisions shall submit a written request which should include, among others, the following:
  - 1.1.1 A statement of the circumstances underlying the request as he understands them.
  - 1.1.2 Reference to the particular section of the code or to the specific interpretative provision which he believes to be relevant to the request.
  - 1.1.3 Copies of any relevant supporting documents.
- 1.2 If the member requesting for guidance wishes to remain anonymous, except to the Chairperson of the PSRC, he may request that it be so. The Chairperson will exert reasonable effort, without any absolute guarantee, to safeguard the identity of such member. However, in some cases, the efforts to keep anonymity of the requesting member may hamper the ability of the PSRC to act efficiently on the request for guidance.
- 1.3 The PSRC reserves the right to refuse to respond to any request for guidance submitted by a member who refuses to be identified even to the Chairperson of the PSRC.
- 1.4 The PSRC reserves the right to investigate a request for guidance as if it were a complaint where the request raises a significant concern that a material breach of the Code has occurred.

- 1.5 The PSRC shall respond to verbal or written inquiries from a member either verbally or in writing as the case may be. However, if the PSRC deems that the inquiry should be more properly framed as a complaint or request for guidance, it will request that the member making the inquiry should resubmit the inquiry in writing in the form of a complaint or request for guidance.

## 2. INITIATION OF INVESTIGATION ON MATTERS OF DISCIPLINE

- 2.1 The PSRC may, at its own initiative or upon the complaint of any individual or entity who believes that a member has violated the provisions of the Code, investigate questions that may arise as to the conduct of such member.
- 2.2 If the investigation is at the instance of the PSRC, the PSRC shall send to the member concerned a letter, together with all relevant supporting documents, by registered mail, indicating the particular causes why the PSRC deems it necessary to conduct such inquiry or investigation and requesting the member to submit his written response or comments and present his side within fifteen (15) days from receipt of PSRC's letter.
- 2.3 If the investigation is at the instance of a third person, such person must submit a written complaint to PSRC which should include, among others, the following:
  - 2.3.1 A statement of the circumstances underlying the complaint as the complainant understands them.
  - 2.3.2 If the complainant is a member of the ASP, a reference to the particular section of the Code which he believes the member complained of (hereinafter referred to as the "subject members"), may have violated and/or to the specific interpretative provision which he believes to be relevant to the complaint.
  - 2.3.3 Copies of any relevant supporting documents.
  - 2.3.4 A signed statement granting the PSRC permission to inform the subject member of the identity of the complainant at the proper time.
- 2.4 As a general rule, the PSRC does not entertain complaints from anonymous complainants. However, it may, upon receipt of an anonymous complaint, initiate an investigation to determine if a violation of the Code or a material breach of the standards of professionalism has occurred so that the PSRC can make the proper recommendation to the Board of Governors for the appropriate action to be taken to protect the reputation of the ASP and its members in good standing.

## 3. PRELIMINARY EVALUATION OF A COMPLAINT

- 3.1 Upon receipt of a complaint, the PSRC shall immediately conduct a preliminary evaluation of the complaint. This may include a request to the complainant to clarify any of the allegations in the complaint.
- 3.2 The PSRC shall then meet to discuss whether to dismiss the complaint, refer it to another body or proceed with the investigation.

- 3.3 If the PSRC finds the complaint to be without merit, it shall dismiss the complaint, notify the complainant of such finding and consider the case closed.
- 3.4 If the PSRC determines the complaint to present a dispute other than violation of the Code or breach of standards of professionalism, it shall advise the complainant and the subject member and either dismiss the complaints or refer the matter to the proper arbitral body of the ASP.
- 3.5 If the PSRC finds that the complaint has substantial merit and appears to present a violation of the Code and/or a breach of standards of professionalism, it shall proceed with the investigation.

#### 4. INVESTIGATION OF THE COMPLAINT

- 4.1 In the event that PSRC decides to proceed with the investigation of the case, it shall immediately send a letter to the subject member requesting the latter to submit his written answer to the complaint within fifteen (15) days from receipt of PSRC's letter. The PSRC shall attach to its letter copies of the complaint and all relevant supporting documents.
- 4.2 The subject member's answer should contain, at minimum, the following:
  - 4.2.1 A statement of acts which rebut or explain the allegations in the complaint.
  - 4.2.2 An explanation why any misconduct alleged in the complaint did not constitute a violation of the Code or breach of the standards of professionalism or why such conduct was immaterial or irrelevant.
  - 4.2.3 A statement of the circumstances which the subject member wishes the PSRC to consider in formulating its recommendations to the Board of Governors.
  - 4.2.4 Copies of any relevant supporting documents.
- 4.3 Upon receipt of the answer of the subject member, the PSRC may request the subject member for clarification on any matter raised in the answer. Thereafter, the PSRC shall determine if the answer satisfactorily rebuts or explains the allegations raised in the complaint and provides sufficient basis to dismiss the complaint, and shall immediately notify both the complainant and the subject member.
- 4.4 If the answer filed by the subject member does not provide sufficient basis to dismiss the complaint, the PSRC shall schedule as many meetings as necessary with the complainant and the subject member during which the PSRC shall allow the parties to present evidence to support their positions. During this meeting, the PSRC may propound questions to either party with the objective of establishing whether a violation at the Code and/or a breach of the standards of professionalism has occurred. The PSRC may also require the production of records, books or other documents which it deems appropriate and relevant to the resolution of the issues involved. It may also consider the testimony of persons other than the complainant and the subject member.

- 4.5 If, in the course of the investigation, the PSRC discovers evidence of one or more violations of the code and/or breaches of the standards of professionalism, other than those alleged in the complaint, the PSRC may include them as if they had been included in the complaint.
- 4.6 It shall be considered a violation of the Code for any member to mislead the PSRC by concealment or misrepresentation during the course of investigation of any complaint.
- 4.7 Where the complaint is also the subject of a case in a court of law or in a regulatory body, the PSRC may inhibit itself from conducting any investigation until the said court or body shall have rendered its decision. It can also adopt the findings of fact of that court or body as its own. However, this does not preclude the PSRC from proceeding with its own investigation or from recommending temporary disciplinary action on any member in accordance with the rules on discipline of the ASP.
- 4.8 The minutes of the entire proceedings shall be recorded by a secretary or stenographer to be assigned by the PSRC.
- 4.9 During the entire proceedings, the PSRC shall not be bound by any technical rules of evidence and judicial procedures, but shall be guided by fairness and equity.
- 4.10 The entire proceedings shall be treated with utmost confidentiality. There shall be no publication, in any form, of the fact that a particular member is being investigated until the Board of Governors has handed down its final decision on the case. The meeting(s) mentioned in Paragraph 4.4 above shall be conducted in private at a time and at the place determined by the PSRC. The meeting/s shall be attended only by the members of the PSRC, the Legal Counsel of the ASP, the complainant and the subject member, the witness(es) who will testify and the secretary or stenographer who will record the minutes of the meeting(s).

## 5. DELIBERATION AND DECISION OF PSRC

- 5.1 Within thirty (30) days from the conclusion of the last of the meetings mentioned in Paragraph 4.4 above, the PSRC shall conduct its deliberations on the case. During these deliberations the PSRC may consult confidentially with any member of the ASP or other persons who may have information or experience relevant to the matters under consideration. However, no information from these consultations may be used unless the information is made part of the records of the PSRC's proceedings and the subject member is given an opportunity to comment on the same.
- 5.2 After the conclusion of the deliberations, the PSRC shall vote to decide the case. A majority vote of all the members of PSRC is required to approve a decision.
- 5.3 Once a decision has been reached, the PSRC shall assign one of its members the task of writing its report containing its recommendation(s) and any dissenting opinion to the Board of Governors. This report, which must be signed by all members who took part in the deliberations of the case, shall be submitted to the Board of Governors within thirty (30) days after the conclusion of the deliberations of the PSRC, together with all the records of the case.

- 5.4 If, in the judgment of a majority of the members of PSRC, the subject member has committed a violation of the Code and/or a breach of the standards of professionalism warranting public discipline, the PSRC shall recommend to the Board of Governors to warn, admonish, reprimand, suspend or expel the erring member.
- 5.5 If the majority of the entire PSRC does not vote to recommend public discipline, the PSRC may vote to counsel the subject member or to dismiss the complaint. If it is the judgment of the PSRC that remediation is more appropriate than dismissal of the complaint or public discipline, the subject member will be counseled. Such counseling may be conveyed to the subject member orally, in writing or both, and may be undertaken by the chairperson or any member of the PSRC, or any other individual appointed by the PSRC to counsel the subject member. The complainant will be advised that the PSRC reviewed the complaint and elected to counsel the subject actuary. However, the substance of the counseling shall be kept confidential between the PSRC, the subject member and any individual(s) appointed to counsel the subject member.
- 5.6 If, in the judgment of the PSRC, the charges appear to be without substantial merit, or if the necessary votes to impose public discipline or private counseling cannot be obtained, the PSRC shall dismiss the complaint. The complainant and the subject member shall be notified in writing of this decision and the case will be closed.

## 6. ACTION BY THE BOARD OF GOVERNORS

- 6.1 The Board of Governors may adopt the recommendations of the PSRC *en toto* or modify the same or reject the same altogether and conduct its own investigation.
- 6.2 The Board of Governors shall render its decision on the case within forty-five (45) days from receipt of the recommendation of PSRC. The complainant and the subject member shall be immediately informed, by registered mail, of the decision of the Board.
- 6.3 Should the subject member be found guilty of violating the Code or breaching the standards of professionalism, the Board may warn, admonish, reprimand, suspend or expel the member from the ASP, provided that no decision suspending or expelling the member shall take effect until the member had been afforded a period of appeal of thirty (30) days and until confirmed by a vote of at least two-thirds (2/3) of the Fellows of the ASP present at a meeting called for the purpose wherein a quorum is present.

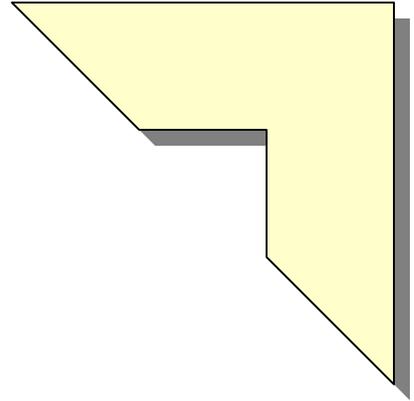
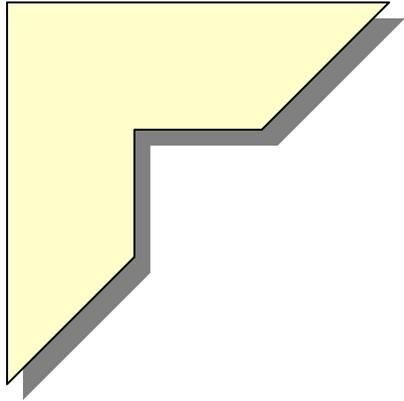
## 7. APPEAL BY A MEMBER SUBJECT TO DISCIPLINARY ACTION

- 7.1 Appeals from the disciplinary actions of suspension or expulsion by the subject member may be made, if there is obtained and submitted, new evidence(s) not presented before, or the previously submitted evidence(s) is deemed fraudulent based on new information, that could lead to a different recommendation and judgment for disciplinary action.
- 7.2 The appeal shall be made in writing, and shall include oral and documentary evidences taken on the issue involved. Oral evidences shall include names and identities of the witnesses.

- 7.3 Appeals shall be made directly to the Board which shall appoint an Appeals Committee consisting of two members, drawn by lot, from the members of the PSRC who rendered the original recommendation to the Board, plus three new members selected at large from the ranks of Fellows, who have not been involved in the original deliberation and recommendation.

8. ANNUAL REPORT BY PSRC

The PSRC shall submit to the Board of Governors, at the end of every year, an annual report of its activities on cases resolved, dismissed or pending.



## **SECTION III: PRINCIPLES, GUIDELINES AND STANDARDS OF ACTUARIAL PRACTICE**

Procedures for Adoption of Actuarial Principles and Standards of Practice

Principles of Actuarial Science

Practice Guide on Reporting under Philippine Accounting Standard No. 19 (PAS 19)

Principles Regarding Provisions for Life Risks

Guidelines for Actuarial Practice in Group Term Life Insurance

Guidelines Governing Implementation of Amended Pre-Need Rule 31 (PNUCA)

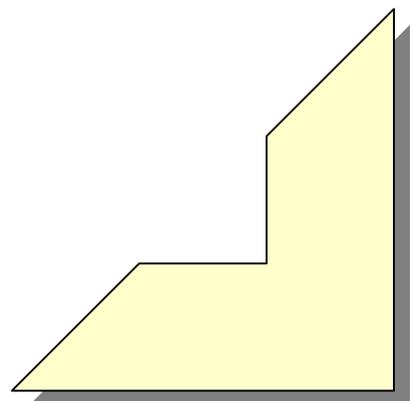
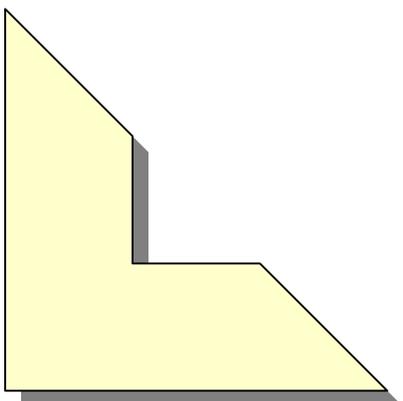
Standards of Actuarial Practice in Pre-Need

Standards of Actuarial Practice for the Valuation of Retirement Plans

Communications Related to Statement of Financial Accounting Standards 24 – Retirement Benefit Plans

Model Retirement Plan Provisions

Final IAA Guidelines of Actuarial Practice for Social Security Programs



## **PROCESS FOR ADOPTION OF ACTUARIAL PRINCIPLES AND STANDARDS OF PRACTICE (Adopted August 1998)**

1. General Actuarial Principles are adopted by the Actuarial Society of the Philippines (ASP) from those developed and published by leading international actuarial organizations like the Society of Actuaries and the Casualty Actuarial Society of the United States of America. These associations were selected because the basic foundation, framework and organization of actuarial practice in the Philippines have been adopted from actuarial practice in the United States of America. The ASP may develop its own actuarial principles for certain disciplines where none are available.
2. From the General Actuarial Principles, the ASP promulgates guidelines to actuarial practice and standards of practice, taking into account the insurance laws and regulations, and other applicable Philippine laws that affect an institution's functions and activities which require the expertise of an actuary.
3. A technical committee is organized by the ASP Board of Governors from the membership to prepare an exposure draft of the principles, guidelines and/or standards for the discipline or area of specialization. The exposure draft is presented for discussion in a forum, at a special meeting or regular meeting of Fellows, where reactions and comments are solicited and recorded. The technical committee subsequently undertakes revisions if necessary. Depending on the importance of the issues raised during the exposure of the draft, a revised draft may be presented a second time or third time, until substantial differences of opinion are resolved. The views of the Professional Standards and Review Council may be solicited during the drafting or revision process.
4. The amended paper is then officially submitted to the ASP Board of Governors for approval or other action.
5. When approved by the Board of Governors, the principles, guidelines and/or standards are printed and distributed to all members of the ASP.

## PRINCIPLES OF ACTUARIAL SCIENCE

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*Editor's Note:* This paper, mentioned in the first paragraph of the *Guidelines and Procedures for Counseling and Discipline*, is reprinted from the Transactions of the Society of Actuaries, Vol. XLIV 1992, pp. 565-591.

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### PRINCIPLES OF ACTUARIAL SCIENCE

#### SOCIETY OF ACTUARIES COMMITTEE ON ACTUARIAL PRINCIPLES\*

#### ABSTRACT

The Committee on Actuarial Principles is charged with identifying, circulating and organizing actuarial principles (as distinct from standards) and recommending the resulting statements of principles to the Board of Governors for review and adoption. In October 1991, the Board accepted the Committee's statement entitled "Principles of Actuarial Science." This statement, which constitutes the following paper, is an expression of opinion by the Committee on Actuarial Principles and has been authorized by the Board of Governors. It has not been submitted to the vote of the membership and thus should not be construed as an expression of opinion by the Society of Actuaries.

#### PREAMBLE

Actuarial science, the foundation for the actuarial profession, is an *applied science*. As an applied science, its theory is grounded in certain observations about the real world.

The practice of any profession is shaped by the experience of its members, as well as by accumulated scientific knowledge. The practice of the actuarial profession is based on:

- **Principles** – Statements grounded in observation and experience. Principles will be subject to change only if fundamental changes occur in our understanding of the observed world.
- **Methodologies** – Descriptions of applications of the Principles to defined areas of practice. Since Methodologies represent the state of the art, they are likely to change as new techniques are developed in various practice areas.
- **Standards** – Rules of behavior, including, in particular, directives as to when and how professional judgment should be employed. Some Standards are prescriptions of professional conduct and are usually not subject to change. Others involve judgments needed to apply Principles or Methodologies to circumstances of practice and may change as practice circumstances change.

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**Note:** This paper has been written by members of the Society of Actuaries. Its application should be limited to the areas of actuarial practice which fall within the purview of that Society. It is not intended to include the areas of property and casualty insurance.

\* Arnold A. Dicke, *Chairperson*, Wayned Bergquist, Robert P. Clancy, Robert A. Miller III, Harry H. Panjer, Donald M. Peterson, Charles Barry H. Watson, and Warren Luckner, SOA Staff Liaison.

## *I. Principles*

This paper attempts to set forth the fundamental principles that underlie actuarial science. Their statement is intentionally broad and rather formal. The intended audience is practicing actuaries, researchers and others, such as regulators and standard-setting bodies. Care has been taken to define its terms with precision. Since actuarial science is rooted in mathematics, the exposition is similar to that of a mathematical monograph. To improve understanding, however, numerous clarifying Discussions of both Principles and Definitions have been provided.

The Principles have been grouped according to their basic subject matter. Statistical and Economic and Financial Principles have been borrowed from related disciplines and are limited to those necessary as background to actuarial science. Actuarial Modeling and Risk Management Principles delineate the foundations of the profession common to all practice areas.

The subject matter of this paper is similar to that of the 1989 monograph, *Fundamental Concepts of Actuarial Science*, by C.L. Trowbridge [1]. The purpose and thus the organization and content are somewhat different, although not conflicting. The Trowbridge monograph is intended for a broad spectrum of readers, including nonactuaries, who are interested in the development of the fundamental concepts of actuarial science from its philosophical, economic and sociological roots. On the other hand, this paper is written to meet the practical needs of those for whom precise definition and formal development are essential, including, in particular, those involved in the standard-setting process.

## *II. Methodologies*

Application of the Principles to situations encountered by practicing actuaries leads to new and continually evolving models and techniques. Each such model or technique applies one or more of the Principles to the practice situation. These applications are referred to as Methodologies.

Each practice area has its own Methodologies. It is intended that a series of papers will be developed to formalize the Methodologies pertaining to the various practice areas of Society of Actuaries members.

## *III. Standards*

The proper application of Principles and Methodologies to actuarial practice situations requires the exercise of judgment regarding the choice of methods and assumptions. Standards are statements which define the methods and assumptions believed to be reasonable for particular situations. When adopted and promulgated by professional organizations, regulators, lawmakers, or others in authority, these become Guides to Professional Conduct, Standards of Practice, Technique Papers, Regulations, etc.

The development of Standards is beyond the scope of the work assigned to the Committee on Actuarial Principles.

## PRINCIPLES OF ACTUARIAL SCIENCE

The following table gives the organization of the remainder of the paper.

1. Statistical Principles
    - 1.1 Statistical Regularity
    - 1.2 Stochastic Modeling
  2. Economic and Financial Principles
    - 2.1 Diversity of Preferences
    - 2.2 Time Preference
    - 2.3 Present Value Modeling
  3. Actuarial Modeling Principles
    - 3.1 Modeling of Actuarial Risks
    - 3.2 Validity of Actuarial Models
    - 3.3 Combinations of Cash Flows
  4. Risk Management Principles
    - 4.1 Risk Classification
    - 4.2 Pooling
    - 4.3 Antiselection
    - 4.4 Induced Experience
    - 4.5 Insured Experience
    - 4.6 Avoidance of Ruin
    - 4.7 Actuarial Soundness
- Glossary  
Principles of Actuarial Science  
Definitions

### 1. *Statistical Principles*

DEFINITIONS. *Phenomena* are occurrences which can be observed. An *experiment* is an observation of given phenomenon made under specified conditions. The result of an experiment is called an *outcome*; an *event* is a set of one or more possible outcomes.

**1.1 PRINCIPLE (Statistical Regularity). Phenomena exist such that, if a sequence of independent experiments is held under the same specified conditions, the proportion of occurrences of a given event stabilizes as the number of experiments becomes larger.**

DEFINITIONS. A phenomenon to which Principle 1.1 applies is said to display *statistical regularity*.

*Probability* is a measure which takes on values from zero to one and gives the likelihood of occurrence of an event.

A rule which assigns a numerical value to every possible outcome is called a *random variable*. The probably-weighted average of the numerical values taken on by a random variable is called the *expected value* of the random variable.

DISCUSSION. If a phenomenon displays statistical regularity, an estimate of the probability of an event associated with the phenomenon is the proportion of occurrences of the event in a long sequence of experiments. Alternatively, the probability of an event may be estimated subjectively using other criteria.

A random variable is a variable that takes on each of a set of numerical values with a given probability.

DEFINITIONS. A *scientific model* is an abstract and simplified representation of a given phenomenon. A *mathematical model* is a scientific model in which the representation is expressed in mathematical terms.

**1.2 PRINCIPLE (Stochastic Modeling). A phenomenon displaying statistical regularity can be described by a mathematical model that can estimate within any desired degree of uncertainty the proportion of occurrences of a given event in a sufficiently long sequence of experiments.**

DEFINITION. A model satisfying Principle 1.2 is called a *stochastic model*.

DISCUSSION. A stochastic model cannot predict with certainty the outcome of a single experiment prior to its being carried out.

A stochastic model can estimate the expected value of a random variable, provided the sequence of values that arises from the sequence of experiments converges.

DEFINITION. A *deterministic model* is a simplified stochastic model in which the proportion of occurrences of a given event estimated by the stochastic model is assumed to occur with probability one.

DISCUSSION. The stochastic aspect of a model may not be relevant to a given application; in such situations a deterministic model might be used. A deterministic model is a stochastic model with degree of uncertainty zero.

The uncertainty associated with a stochastic model has two distinct sources:

- the inherent variability of the phenomenon, and
- incomplete knowledge and/or inaccurate representation of the probabilities of alternative sets of outcomes.

Sometimes these are referred to as “process risk” and “parameter risk,” respectively. The terms “risk” and “uncertainty,” respectively, have also been used; however, in this paper, these terms have been assigned other meanings.

Stochastic models may be based on results obtained from previous experiments or may utilize initial assumptions about the probabilities of various sets of outcomes which may be systematically revised as results of experiments are obtained.

Before a model is used, it must be checked for consistency with available information. This process is commonly referred to as “validation.”

DEFINITION. A mathematical model is said to be *valid within a specified degree of accuracy* relative to certain observed results if it reproduces these results within that degree of accuracy.

DISCUSSION. Observed results involving the phenomenon which is represented by a model may not be available or sufficiently voluminous to allow the model to be validated within a specified degree of accuracy. In this case, the usefulness of the model may be established initially by comparison with results of the observation of some similar phenomenon. It would be expected that such “judgmentally validated” models could be validated if sufficient data were available.

Not all observable aspects of the modeled phenomena must be reproduced in order for the model to be valid. For example, a model used in the appraisal of an insurance company may be validated only with respect to a few quantities, such as aggregate reserves and total policy count.

**DEFINITION.** A mathematical model is *potentially valid* if it produces results that are consistent with available observations of the modeled phenomena and of similar phenomena and is capable of being validated relative to the specified observed results when sufficient data are available.

**DISCUSSION.** The statistical definitions and principles of this section are important to actuaries for two reasons:

- Most phenomena studies by actuaries are assumed to exhibit statistical regularity. In the real world, “experiments” cannot be replicated precisely. The idealized model which serves as an approximate representation of real world phenomena has the property of statistical regularity.
- Stochastic models (along with other mathematical models) are among the actuary’s key tools. They are used to draw conclusions about real world phenomena. Specifically, a stochastic model can be used to make probability statements in connection with a single experiment or multiple experiments.

## 2. *Economic and Financial Principles*

**DEFINITIONS.** An *economic good* is something which has value to a person and which the person may consider exchanging for something else. *Money* is a means of exchange which may be traded for economic goods. The amount of money a person is willing to trade for a good at a specific point in time is the good’s *current monetary value* to that person.

**2.1 PRINCIPLE (Diversity of Preferences).** Different people may assign different current monetary values to the same economic good.

**2.2 PRINCIPLE (Time Preference).** Money has time value; that is, people tend to prefer receiving money in the present to receiving that same amount of money in the future.

**DISCUSSION.** Time preference is normally represented by an interest rate, or a system of interest rates, used to discount future receipts or disbursements of money so that they may be compared to amounts of money currently held. The appropriate representations of time preference for a given application will be covered under Methodologies.

**DEFINITIONS.** A *cash flow* is the receipt or disbursement at a point in time of an amount of money (or of an economic good with a monetary value). A cash flow whose occurrence or amount depends on the occurrence of an event that is not certain to occur is said to be *contingent*. An *asset* is money or economic goods held, or a right to receive future cash flows; an *obligation* is a duty to provide current or future cash flows.

**2.3 PRINCIPLE (Present Value Modeling).** For many persons, there exists a mathematical model that can estimate the current monetary value that the person would assign to any future cash flow.

**DEFINITIONS.** A model described by Principle 2.3 is called a *present value model*. The estimate of the current monetary value of a future cash flow given by a present value model under a fixed assumption regarding future economic conditions is called the *present value* of the cash flow relative to that assumption. Such a fixed assumption regarding future economic conditions is called a *scenario*.

DISCUSSION. If there is uncertainty regarding future economic conditions, the estimates made by a present value model may represent expected values. Such expected values may be thought of as averages of the present values over various scenarios. In this case, the present value may be thought of as a random variable whose expected value is the current monetary value.

### 3. *Actuarial Modeling Principles*

DEFINITIONS. An *actuarial risk* is a phenomenon that has economic consequences and that is subject to uncertainty with respect to one or more of the *actuarial risk variables*: occurrence, timing and severity.

**3.1 PRINCIPLE (Modeling of Actuarial Risks).** Actuarial risks can be stochastically modeled based on assumptions regarding the probabilities that will apply to the actuarial risk variables in the future, including assumptions regarding the future environment.

DEFINITIONS. A model described by Principle 3.1, together with a present value model if applicable, is called an *actuarial model*. The assumptions upon which an actuarial model is based are called *actuarial assumptions*.

**3.2 PRINCIPLE (Validity of Actuarial Models).** The change over time in the degree of accuracy of an initially valid actuarial model depends upon changes in:

- the nature of the right to receive or the duty to make a payment;
- the various environments (regulatory, judicial, social, financial, economic, etc.) within which the modeled events occur; and
- the sufficiency and quality of the data available to validate the model.

DEFINITION. The *actuarial value* of a future cash flow that is contingent upon actuarial risk variables is the present value developed by an actuarial model associated with the actuarial risk variables.

DISCUSSION. Recall that the present value, and hence the actuarial value, of a future cash flow is, in general, a random variable. The actuarial value of any asset or obligation is determined by the actuarial value of the associated cash flows, including money currently held. In general, the component cash flows not only have uncertain values but also are not independent of one another.

**3.3 PRINCIPLE (Combinations of Cash Flows).** The degree of uncertainty of the actuarial value of a combination of cash flows reflects both the uncertainties affecting each underlying actuarial risk variable and the process of combination.

### 4. *Risk Management Principles*

DEFINITIONS. A person or object involved in an event associated with an actuarial risk is called a *risk subject* or *risk*. *Risk identification* is a process for determining whether a given person or object is a risk subject for a given actuarial risk. *Risk control* is a process that reduces the impact of one or more of the actuarial risk variables associated with the actuarial risk. *Risk transfer* or *risk financing* is a mechanism that provides cash flows that are contingent upon the occurrence of an event associated with the actuarial risk and that tend to offset undesirable economic consequences. A *risk management system* is an arrangement involving one or more of risk identification, risk control, and risk transfer or risk financing.

A *financial security system* is an arrangement for risk financing in which one person assumes the obligation to make a payment (or series of payments), called a *benefit (benefits)*, that offsets undesirable economic consequences that may be experienced by a second person in return for the payment, by or on behalf of the second person, of one or more amounts, called *considerations*.

DISCUSSION. “Person” may indicate either a human being or a corporate or other entity. The term “financial security system” applies to insurance, annuity, retirement, and health care financing systems.

In general, there is a period of time between the date a consideration is received under a financial security system and the date a benefit is paid. During this period, at least part of the consideration may be invested in one or more types of assets.

For annuities and retirement systems, benefits are provided to reduce the uncertainty regarding the availability of income during part or all of the remaining lifetime of one or more persons. The event referred to in the definitions above is survival to a succession of specified ages following the commencement of income or the date of retirement, and the undesirable economic consequence is outliving one’s resources.

DEFINITIONS. An event is said to be *insurable* if:

- a. it is associated with a phenomenon that is expected to display statistical regularity;
- b. it is contingent with respect to number of occurrences, timing and/or severity;
- c. the fact of its occurrence is definitely determinable;
- d. its occurrence results in undesirable economic consequences for one or more persons; and
- e. its future occurrence, timing and/or severity are neither precisely known nor controllable by these persons.

A person is said to have an *insurable interest* in an insurable event to the extent that the occurrence of the event creates an economic need involving that person.

DISCUSSION. An insurance policy may pay “benefits” related to occurrences that do not fit the definition of “insurable event.” For example, a group health plan may pay for elective surgery or annual physicals. In such cases, the “premium” for the plan may contain a pass-through of charges that arise from events other than insurable events; or it may be that, group basis, since the number of participants who will utilize the benefit each year is not precisely known. While an insurance policy or contract may combine payments resulting from insurable events and other payments, it nevertheless may be desirable to be able to distinguish between them.

The term “economic need” covers a wide range. For example, the future welfare of a person’s family is an economic need involving that person, and the increased longevity of a group of retirees could create an economic need for a pension plan sponsor.

Another important aspect of insurance systems is the classification of the risk subjects associated with the actuarial risk. In this context, the term “risk” is commonly used to refer to risk subjects.

**4.1 PRINCIPLE (Risk Classification). For a group of risks associated with a given actuarial risk, it is possible to identify characteristics of the risks and to establish a set of classes based on these characteristics so that:**

- a. each risk is assigned to one and only one class; and
- b. probabilities of occurrence, timing and/or severity may be associated with each class in a way that results in an actuarial model which, for some degree of accuracy, is:

- (1) valid relative to observed results for each class or group of classes having sufficient available data, and**
- (2) potentially valid for every class.**

DEFINITIONS. A set of classes, a set of characteristics and a set of rules for using the characteristics to assign each risk to a class in such a way that the conditions of Principle 4.1 are satisfied with respect to a given group of risks is called a *risk classification system*. These classes are called *risk classes*, and the rules used for assigning risks to risk classes are called *underwriting rules*.

DISCUSSION. A classification system that cannot be associated with an actuarial model that can be validated relative to observed results when appropriate observed results are available is not a risk classification system.

An actuarial model associated with a risk classification system will reproduce any closely comparable observed values for appropriate groups of classes within a specified degree of accuracy. For example, if the insurable event is the occurrence of death within one year and the classes were determined by current age, policy year, sex, smoker/nonsmoker status, state of health, and occupation, the result would be the association with each age (and policy year, perhaps) of probabilities of death within one year. The model associated with this classification system is a mortality table. In order to be a valid model, the mortality table would have to be consistent with relevant observed rates of death for those groups of classes (such as standard class females aged 20-29 at issue, or all substandard males and females combined with issue ages 20-29) for which sufficient data are available.

A risk classification system is defined at a given point in time. Its continued appropriateness for a specific use depends on the continued availability of a valid associated actuarial model.

It should be noted that different insurable events (that is, different coverages) may require different risk classification systems.

DEFINITIONS. An *insurance system* is a financial security system in which:

- a. the actuarial risks to be financed arise from insurable events;
- b. the risk subjects are grouped according to a risk classification system;
- c. the benefits payable are related to an insurable interest;
- d. the actuarial value of benefits payable, developed by an actuarial model associated with the risk classification system, is finite; and
- e. considerations are consistent with the actuarial value of the associated benefits.

An insurance system is *mandatory* if all persons in a group or in society are required legally or otherwise to participate; otherwise, it is *voluntary*. It is a *personal insurance system* if the decision to participate is made by each insured individually; it is a *group insurance system* if the decision is made on behalf of a group, although participation may be mandatory or voluntary for the members of the group; and it is a *social insurance system* if all members of society (or a defined subgroup of society) are eligible to participate. The entities to which actuarial risk is transferred in an insurance system (whether private or governmental) are called *insurers*.

DISCUSSION. To say that considerations are “consistent with” the actuarial value of benefits means, in effect, that they are risk-related. Some programs that do not fit the above definition of an insurance system are nevertheless included in the class of financial security systems. Examples include programs in which the considerations charged are not risk-related, as well as programs that make payments that are unrelated to insurable events.

In an insurance system, underwriting rules may be formulated for most actuarial risks so that actuarial value of benefits is different for different risk classes. In some cases, however, either the actuarial value of benefits associated with a risk class or the uncertainty inherent in the underlying actuarial risk variables is so great that coverage is deemed inappropriate.

**DEFINITIONS.** A *refinement of a risk classification system* is a risk classification system formed from another by subdividing one or more classes. If there are actuarial models associated with the original risk classification system and with the refinement such that these models assign the same probabilities of occurrence, timing and/or severity to classes that were not subdivided, but they assign differing probabilities to one or more of the subdivisions of at least one class, the refinement is said to be *more homogeneous* than the original system.

**DISCUSSION.** For a given set of observed results, the actuarial model associated with a more homogenous risk classification system may have a reduced degree of accuracy since fewer data points are available for each class of the refinement. For some purposes, it is necessary to ensure that a minimum degree of accuracy is attained.

**4.2 PRINCIPLE (Pooling).** **If the actuarial risk associated with a risk classification system displays statistical regularity, it is possible to combine risk classes so as to ensure that there is an actuarial model associated with the new set of risk classes that is valid within a specified degree of accuracy.**

**DEFINITION.** The process of combining risk classes described in Principle 4.2 is called **pooling**.

**DISCUSSION.** It is clear from Principle 4.2 that there is a trade-off between pooling and homogeneity in insurance systems. Moreover, increased homogeneity generally leads to increased cost of information. This and other practical factors tend to limit the degree of homogeneity which is achievable. The extent of trade-off chosen is a judgment based on the specific situation. Guidelines for the exercise of judgment fall in the category of Standards and are specifically excluded from consideration here. Statistical techniques and economic concepts such as utility theory may be used to inform these judgments.

The trade-off between pooling and homogeneity is implemented by underwriting rules. Some of the distinctions made by these rules result in classes for which the difference in probabilities remains constant over time. For other distinctions, the probabilities of two or more classes may converge over time. The ability to make such temporary distinctions (based on current health status, etc.) is useful, because it decreases the degree of uncertainty regarding current status and allows insureds to be charged more appropriate initial considerations. Thus, the knowledge that all members of a class had normal blood pressure on a certain day might allow that class to be offered lower considerations for life and health insurance. Typical selection criteria are the results of a current medical examination, current employment status and any history of occurrences of the insurable event.

In some forms of insurance, the selection process is repeated periodically, based on the accumulating information available for each risk. This process is called “renewal underwriting.”

**DEFINITIONS.** The *premium structure* of an insurance system is a set of considerations that reflect the assignment of risks to various risk classes. A *refinement of a premium structure* is a premium structure based on a refinement of a risk classification system.

DISCUSSION. An insurance system may provide for dividends or experience refunds that may be thought of as offsets to considerations. The considerations which define a premium structure for such a system are then net of such dividends or experience refunds.

**4.3 PRINCIPLE (Antiselection).** If the premium structure of a voluntary insurance system is based on a risk classification system such that a refinement of the system could result in significant differentials in considerations between risks originally assigned to the same class, there will be a tendency for relatively greater participation by those whose considerations would increase if the refinement were put in place.

DISCUSSION. One implication of Principle 4.3 is that, if one insurer offers more premium classes than another, and if this results in significant differentials in considerations, antiselection is likely to occur, with the risks that would be required to pay higher considerations in the first company tending to gravitate to the insurer with fewer classes.

Once a premium structure has been determined, another actuarial concept comes into play: the use of emerging experience to modify the premium structure, insofar as allowable, for both new and existing insureds.

DEFINITIONS. The *experience* of a financial security system is the data obtained in the operation of the system.

Estimates, based on such data, of rates of occurrence or amounts of payment related to an actuarial risk are called *experience rates*.

**4.4 PRINCIPLE (Induced Experience).** The experience rates for events associated with a financial security system will tend to differ from those for the same events in the absence of any such system.

**4.5 PRINCIPLE (Insured Experience).** The experience rates for the insurable events of an insurance system will tend to differ from the overall rates of occurrence of the same events among all those subject to a given actuarial risk.

DEFINITIONS. An *experience adjustment* is a change in considerations or benefits applicable to the various risk classes to reflect the experience of the financial security system. *Credibility* is the importance assigned to the experience of a given risk class or group of risk classes relative to other information for the purpose of experience adjustment.

DISCUSSION. The inability to establish “true” underlying rates makes the use of experience adjustments essential.

Experience adjustments may reflect only the current period or may involve a recalculation of the considerations or benefits based on the assumption that the future experience rates of the financial security system will be more like its past experience rates than the rates previously assumed.

DEFINITIONS. The *actuarial value of a financial security system* relative to a given actuarial model is the actuarial value, developed by the model, of the combination of cash flows associated with assets, obligations, and considerations of the system. The process of determining the actuarial value of a financial security system is called a *valuation*. If the actuarial value can be expressed as a function of any variable associated with the financial security system and independent of the actuarial model, that

variable is called a *financial parameter* of the financial security system. The amounts by which the values of financial parameters can be changed without reducing the expected actuarial value of the financial security system below zero are called *margins*.

DISCUSSION. Actuaries are often called upon to place a value on future contingent cash flows related to the operations of a financial security system. Because the actuarial value is, in general, a random variable, it may be preferable to state the conditions under which the actuarial value may be expected to fall within a given range.

Actuaries perform valuations in at least three contexts: pricing (or rate-making), reserving and appraisal. Typically, when the actuary performs a valuation, the purpose is to determine the values of one or more of the financial parameters that produce actuarial values in a specified range. In pricing, the parameters are the set of considerations or “premium rates,” while in reserving the parameter is called a “reserve.” In appraisals, the financial parameter is the price to be paid or received for the right to the cash flows being valued.

A set of financial parameters that is often important is the set of accounting values of the assets of the financial security system. The amount by which the accounting value of assets exceeds the sum of reserves and the accounting value of other obligations is called “surplus.”

When setting the financial parameters, actuaries take account of other information in addition to the actuarial value. For example, the financial security system may have to meet certain criteria to be allowed (by regulators, creditors, shareholders, etc.) to continue operations.

Moreover, actuaries take account of the uncertainty inherent in actuarial values.

DEFINITIONS. *Ruin* occurs when a financial security system first fails to satisfy all conditions required to remain in operation. The statement of the conditions under which ruin occurs is called the *ruin criterion*. The probability that ruin will occur within a specified period of time, as calculated using an actuarial model, is called the *ruin probability* of the financial security system relative to that model within that period of time.

**4.6 PRINCIPLE (Avoidance of Ruin). For most ruin criteria, there are combinations of values of the financial parameters that will reduce, below a given specified positive level, the ruin probability relative to an actuarial model.**

DEFINITION. A measure of the probability that a financial security system is likely to be able to pay all benefits as promised is called the **degree of actuarial soundness** of the financial security system.

**4.7 PRINCIPLE (Actuarial Soundness). For most financial security systems, there are combinations of margins that will produce, relative to a valid actuarial model, a degree of actuarial soundness that exceeds a given specified level less than one.**

DISCUSSION. One way to define the degree of actuarial soundness is as the complement of the ruin probability, where ruin is defined to be the failure to pay benefits as promised.

Note that actuarial soundness is defined relative to a financial security system. It may be quite different for a subsystem. For example, a governmental pension plan may be designed to be funded through participant contributions, but may enjoy a governmental guarantee of solvency. This system may be analyzed with or without taking account of the guaranteed; the degree of actuarial soundness could differ significantly.

Principle 4.7 requires the actuarial model to be valid, which in turn means the model reproduces observed results within a specified degree of accuracy. This requirement applies to the modeling of the assets as well as the obligations. Both assets and liabilities must be validly modeled before a conclusion can be reached regarding the actuarial soundness of a financial security system.

In practical situations the level of margins, and thus the degree of actuarial soundness attainable, may be constrained by market conditions.

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## GLOSSARY

### PRINCIPLES OF ACTUARIAL SCIENCE

- 1.1 PRINCIPLE (Statistical Regularity).** Phenomena exist such that, if a sequence of independent experiments is held under the same specified conditions, the proportion of occurrences of a given event stabilizes as the number of experiments becomes larger.
- 1.2 PRINCIPLE (Stochastic Modeling).** A phenomenon displaying statistical regularity can be described by a mathematical model that can estimate within any desired degree of uncertainty the proportion of occurrences of a given event in a sufficiently long sequence of experiments.
- 2.1 PRINCIPLE (Diversity of Preferences).** Different people may assign different current monetary values to the same economic good.
- 2.2 PRINCIPLE (Time Preference).** Money has time value; that is, people tend to prefer receiving money in the present to receiving that same amount of money in the future.
- 2.3 PRINCIPLE (Present Value Modeling).** For many persons, there exists a mathematical model that can estimate the current monetary value that the person would assign to any future cash flow.
- 3.1 PRINCIPLE (Modeling of Actuarial Risks).** Actuarial risks can be stochastically modeled based on assumptions regarding the probabilities that will apply to the actuarial risk variables in the future, including assumptions regarding the future environment.
- 3.2 PRINCIPLE (Validity of Actuarial Models).** The change over time in the degree of accuracy of an initially valid actuarial model depends upon changes in:
- a. the nature of the right to receive or the duty to make a payment;
  - b. the various environments (regulatory, judicial, social, financial, economic, etc.) within which the modeled events occur; and
  - c. the sufficiency and quality of the data available to validate the model.
- 3.3 PRINCIPLE (Combinations of Cash Flows).** The degree of uncertainty of the actuarial value of a combination of cash flows reflects both the uncertainties affecting each underlying actuarial risk variable and the process of combination.
- 4.1 PRINCIPLE (Risk Classification).** For a group of risks associated with a given actuarial risk, it is possible to identify characteristics of the risks and to establish a set of classes based on these characteristics so that:
- a. each risk is assigned to one and only one class; and
  - b. probabilities of occurrence, timing and/or severity may be associated with each class in a way that results in an actuarial model which, for some degree of accuracy, is:
    - (1) valid relative to observed results for each class or group of classes having sufficient available data, and
    - (2) potentially valid for every class.

- 4.2 PRINCIPLE (Pooling).** If the actuarial risk associated with a risk classification system displays statistical regularity, it is possible to combine risk classes so as to ensure that there is an actuarial model associated with the new set of risk classes that is valid within a specified degree of accuracy.
- 4.3 PRINCIPLE (Antiselection).** If the premium structure of a voluntary insurance system is based on a risk classification system such that a refinement of the system could result in significant differentials in considerations between risks originally assigned to the same class, there will be a tendency for relatively greater participation by those whose considerations would increase if the refinement were put in place.
- 4.4 PRINCIPLE (Induced Experience).** The experience rates for events associated with a financial security system will tend to differ from those for the same events in the absence of any such system.
- 4.5 PRINCIPLE (Insured Experience).** The experience rates for the insurable events of an insurance system will tend to differ from the overall rates of occurrence of the same events among all those subject to a given actuarial risk.
- 4.6 PRINCIPLE (Avoidance of Ruin).** For most ruin criteria, there are combinations of values of the financial parameters that will reduce, below a given specified positive level, the ruin probability relative to an actuarial model.
- 4.7 PRINCIPLE (Actuarial Soundness).** For most financial security systems, there are combinations of margins that will produce, relative to a valid actuarial model, a degree of actuarial soundness that exceeds a given specified level less than one.

## GLOSSARY

### DEFINITIONS

*Note: In this glossary, the parenthetical reference at the end of each paragraph gives the relative location of the definition(s) in the main body of the paper: “p. P4.1” indicates that the definition can be found preceding Principle 4.1, and “f. P4.1” indicates that the definition can be found following Principle 4.1*

The assumptions upon which an actuarial model is based are called **actuarial assumptions**. (f. P3.1)

A model described by Principle 3.1, together with a present value model if applicable, is called an **actuarial model**. (f. P3.1)

An **actuarial risk** is a phenomenon that has economic consequences and that is subject to uncertainty with respect to one or more of the **actuarial risk variables**: occurrence, timing, and severity. (p. P3.1)

The **actuarial value** of a future cash flow that is contingent upon actuarial risk variables is the present value developed by an actuarial model associated with the actuarial risk variables. (f. P3.2)

The **actuarial value of a financial security system** relative to a given actuarial model is the actuarial value, developed by the model, of the combination of cash flows associated with assets, obligations, and considerations of the system. (p. P4.6)

An **asset** is money or economic goods held, or a right to receive future cash flows; an *obligation* is a duty to provide current or future cash flows. (p. P2.3)

A *financial security system* is an arrangement for risk financing in which one person assumes the obligation to make a payment (or series of payments), called a **benefit (benefits)**, that offsets undesirable economic consequences that may be experienced by a second person in return for the payment, by or on behalf of the second person, of one or more amounts, called *considerations*. (p. P4.1)

A **cash flow** is the receipt or disbursement at a point in time of an amount of money (or of an economic good with a monetary value). (p. P2.3)

A *financial security system* is an arrangement for risk financing in which one person assumes the obligation to make a payment (or series of payments), called a *benefit (benefits)*, that offsets undesirable economic consequences that may be experienced by a second person in return for the payment, by or on behalf of the second person, of one or more amounts, called **considerations**. (p. P4.1)

A cash flow whose occurrence or amount depends on the occurrence of an event that is not certain to occur is said to be **contingent**. (p. P2.3)

**Credibility** is the importance assigned to the experience of a given risk class or group of risk classes relative to other information for the purpose of experience adjustment. (f. P4.5)

The amount of money a person is willing to trade for a good at a specific point in time is the good's **current monetary value** to that person. (p. P2.1)

A measure of the probability that a financial security system is likely to be able to pay all benefits as promised is called the **degree of actuarial soundness** of the financial security system. (f. P4.6)

A **deterministic model** is a simplified stochastic model in which the proportion of occurrences of a given event estimated by the stochastic model is assumed to occur with probability one. (f. P1.2)

An **economic good** is something which has value to a person and which the person may consider exchanging for something else. (p. P2.1)

The result of an experiment is called an *outcome*; an **event** is a set of one or more possible outcomes. (p. P1.1)

The probability-weighted average of the numerical values taken on by a random variable is called the **expected value** of the random variable. (f. P1.1)

The **experience** of a financial security system is the data obtained in the operation of the system. (p. P4.4)

An **experience adjustment** is a change in considerations or benefits applicable to the various risk classes to reflect the experience of the financial security system. (p. P4.5)

Estimates, based on such data, of rates of occurrence or amounts of payment related to an actuarial risk are called **experience rates**. (p. P4.4)

An **experiment** is an observation of a given phenomenon made under specified conditions. (p. P1.1)

If the actuarial value can be expressed as a function of any variable associated with the financial security system and independent of the actuarial model, that variable is called a **financial parameter** of the financial security system. (p. P4.6)

A **financial security system** is an arrangement for risk financing in which one person assumes the obligation to make a payment (or series of payments), called a *benefit (benefits)*, that offsets undesirable economic consequences that may be experienced by a second person in return for the payment, by or on behalf of the second person, of one or more amounts, called *considerations*. (p. P4.1)

An event is said to be **insurable** if:

- a. it is associated with a phenomenon that is expected to display statistical regularity;
- b. it is contingent with respect to number of occurrences, timing and/or severity;
- c. the fact of its occurrence is definitely determinable;
- d. its occurrence results in undesirable economic consequences for one or more persons;  
and
- e. its future occurrence, timing and/or severity are neither precisely known nor controllable by these persons. (p. P4.1)

A person is said to have an **insurable interest** in an insurable event to the extent that the occurrence of the event creates an economic need involving that person. (p. P4.1)

An **insurance system** is a financial security system in which:

- a. the actuarial risks to be financed arise from insurable events;
- b. the risk subjects are grouped according to a risk classification system;
- c. the benefits payable are related to an insurable interest;
- d. the actuarial value of benefits payable, developed by an actuarial model associated with the risk classification system, is finite; and
- e. considerations are consistent with the actuarial value of the associated benefits.

An insurance system is **mandatory** if all persons in a group or in society are required legally or otherwise to participate; otherwise, it is voluntary. It is a **personal insurance system** if the decision to participate is made by each insured individually; it is a **group insurance system** if the decision is made on behalf of a group, although participation may be mandatory or voluntary for the members of the group; and it is a **social insurance system** if all members of society (or a defined subgroup of society) are eligible to participate. (f. P4.1)

The entities to which actuarial risk is transferred in an insurance system (whether private or governmental) are called **insurers**. (f. P4.1)

The amounts by which the values of financial parameters can be changed without reducing the expected actuarial value of the financial security system below zero are called **margins**. (p. P4.6)

A **mathematical model** is a scientific model in which the representation is expressed in mathematical terms. (p. P1.2)

**Money** is a means of exchange which may be traded for economic goods. (p. P2.1)

A *refinement of a risk classification system* is a risk classification system formed from another by subdividing one or more classes. If there are actuarial models associated with the original risk classification system and with the refinement such that these models assign the same probabilities of occurrence, timing and/or severity to classes that were not subdivided, but they assign differing probabilities to one or more of the subdivisions of at least one class, the refinement is said to be **more homogeneous** than the original system. (f. P4.1)

An *asset* is money or economic goods held, or a right to receive future cash flows; an **obligation** is a duty to provide current or future cash flows. (p. P2.3)

The result of an experiment is called an **outcome**; an *event* is a set of one or more possible outcomes. (p. P1.1)

**Phenomena** are occurrences which can be observed. (p. P1.1)

The process of combining risk classes described in Principle 4.2 is called **pooling**. (f. P4.2)

A mathematical model is **potentially valid** if it produces results that are consistent with available observations of the modeled phenomena and of similar phenomena and is capable of being validated relative to the specified observed results when sufficient data are available. (f. P1.2)

The **premium structure** of an insurance system is a set of considerations that reflect the assignment of risks to various risk classes. (p. P4.3)

The estimate of the current monetary value of a future cash flow given by a present value model under a fixed assumption regarding future economic conditions is called the **present value** of the cash flow relative to that assumption. (f. P2.3)

A model described by Principle 2.3 is called a **present value model**. (f. P2.3)

**Probability** is a measure which takes on values from zero to one and gives the likelihood of occurrence of an event. (f. P1.1)

A rule which assigns a numerical value to every possible outcome is called a **random variable**. (f. P1.1)

A **refinement of a premium structure** is a premium structure based on a refinement of a risk classification system. (p. P4.3)

A **refinement of a risk classification system** is a risk classification system formed from another by subdividing one or more classes. (f. P4.1)

A set of classes, a set of characteristics and a set of rules for using the characteristics to assign each risk to a class in such a way that the conditions of Principle 4.1 are satisfied with respect to a given group of risks is called a **risk classification system**. These classes are called **risk classes**, and the rules used for assigning risks to risk classes are called *underwriting rules*. (f. P4.1)

**Risk control** is a process that reduces the impact of one or more of the actuarial risk variables associated with the actuarial risk. (p. P4.1)

**Risk identification** is a process for determining whether a given person or object is a risk subject for a given actuarial risk. (p. P4.1)

A **risk management system** is an arrangement involving one or more of risk identification, risk control, and risk transfer or risk financing. (p. P4.1)

A person or object involved in an event associated with an actuarial risk is called a **risk subject** or **risk**. (p. P4.1)

**Risk transfer** or **risk financing** is a mechanism that provides cash flows that are contingent upon the occurrence of an event associated with the actuarial risk and that tend to offset undesirable economic consequences. (p. P4.1)

**Ruin** occurs when a financial security system first fails to satisfy all conditions required to remain in operation. (p. P4.6)

The statement of the conditions under which ruin occurs is called the **ruin criterion**. (p. P4.6)

The probability that ruin will occur within a specified period of time, as calculated using an actuarial model, is called the **ruin probability** of the financial security system relative to that model within that period of time. (p. P4.6)

The estimate of the current monetary value of a future cash flow given by a present value model under a fixed assumption regarding future economic conditions is called the *present value* of the cash flow relative to that assumption. Such a fixed assumption regarding future economic conditions is called a **scenario**. (f. P2.3)

A **scientific model** is an abstract and simplified representation of a given phenomenon. (p. P1.2)

A phenomenon to which Principle 1.1 applies is said to display **statistical regularity**. (f. P1.1)

A model satisfying Principle 1.2 is called a **stochastic model**. (f. P1.2)

The rules used for assigning risks to risk classes are called **underwriting rules**. (f. P4.1)

A mathematical model is said to be **valid within a specified degree of accuracy** relative to certain observed results if it reproduces these results within that degree of accuracy. (f. P1.2)

The process of determining the actuarial value of a financial security system is called a **valuation**. (p. P4.6)

## **PRINCIPLES REGARDING PROVISIONS FOR LIFE RISKS** **(Adopted 1997)**

### **SOCIETY OF ACTUARIES COMMITTEE ON ACTUARIAL PRINCIPLES\***

#### ABSTRACT

The Committee on Actuarial Principles is charged with identifying, circulating, and organizing actuarial principles (as distinct from standards) and recommending the resulting statements of principles to the Board of Governors for review and adoption. In October 1995, the Board accepted the Committee's statement entitled "Principles Regarding Provisions for Life Risks." This statement, which constitutes the following paper, is an expression of opinion by the Committee on Actuarial Principles and has been authorized by the Board of Governors. It has not been submitted to the vote of the membership and thus should not be construed as an expression of opinion by the Society of Actuaries.

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#### BACKGROUND

The purpose of this statement is to describe principles and considerations regarding the provision made by insurance organizations relative to life actuarial risks. The terminology used to describe this provision is diverse and varies not only by jurisdiction but also in some cases by accounting purpose. For example, the provision is called a "reserve" in the U.S. and an "actuarial liability" in Canada. In addition, the provision sometimes consists of both an accounting liability item and a designated portion of accounting surplus. Some sense of adequacy or sufficiency adheres to each such provision but varies from system to system. This statement is intended to apply consistent notions of adequacy and sufficiency of provisions for life actuarial risks, however defined. It is hoped that the use of a neutral term ("provision") will permit a wide application of the principles without unnecessary confusion.

This statement may be regarded as an extension of "Principles of Actuarial Science," an earlier expression of opinions of the committee [TSA XLIV (1992) 565-628], which articulates general principles that apply to the areas of actuarial practice within the purview of the Society of Actuaries. The Glossary appended to this statement contains the Principles and Definitions originally set forth in "Principles of Actuarial Science."

This statement consists of three parts:

- A. Definitions
- B. Principles with Discussions
- C. Considerations.

Clear and precise Definitions are essential for accurately articulating Principles. This statement uses terms defined in "Principles of Actuarial Science" and defines additional terms as needed.

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\* Arnold A. Dicke, *Chair*, Allan Brender, Daniel F. Case, Carol Randolph Gramer, Stuart Klugman, Donald M. Peterson, Joseph H. Tan, and Warren R. Luckner, SOA Staff Liaison.

Principles are defined in "Principles of Actuarial Science" as "statements grounded in observation and experience." The Principles presented in this document represent applications of the general principles to a defined area of practice. Brief Discussions explain and illustrate the Principles.

The Considerations provide a current context for application of the Principles and discuss areas in which Standards (defined in "Principles of Actuarial Science" as "rules of behavior, including, in particular, directives as to when and how professional judgment should be employed") may be needed.

## **A. DEFINITIONS**

### **1. Terms Previously Defined**

The following terms defined in "Principles of Actuarial Science" are used in this statement: *actuarial assumption*, *actuarial model*, *actuarial risk*, *actuarial value*, *asset*, *benefit*, *cash flow*, *consideration*, *degree of accuracy*, *degree of actuarial soundness*, *insurance system*, *obligation*, *potentially valid*, *premium structure*, *risk (or risk subject)*, *scenario*, and *valid*. Definitions of these terms are found in the Glossary.

### **2. Additional Terms**

A *life insurance and annuity system* is an insurance system in which the actuarial risks to be financed arise primarily from human mortality. The obligations related to the payment of benefits by a life insurance and annuity system are called *life risk obligations*.

An *accounting method* is a set of rules that assigns values (called *accounting values*) to the assets and obligations of a life insurance and annuity system. A *block* (or *block of life risk obligations*) is a subset of the life risk obligations of a life insurance and annuity system, together with the future considerations associated with these obligations.

The insurance subsystem consisting of a block and a collection of assets or portions of assets is called a *component* of the life insurance and annuity system. A component is said to be *in full compliance* if on a given date all applicable contractual, legal, and regulatory constraints that require or prohibit the assignment of specific assets to the block are satisfied.

The accounting value assigned to a block of life risk obligations on a given date (the *valuation date*) is called the *provision* for that block on that date. The sum of the provisions for all blocks of a life insurance and annuity system is called the (*aggregate*) *provision* for the system. A component of a life insurance and annuity system is said to achieve *accounting balance* on the valuation date if the total accounting value of the assets in the component equals the provision for the block of life risk obligations in the component on that date. An *allowable asset allocation* is an assignment or reassignment on the valuation date of assets or portions of assets to each block of a life insurance and annuity system, so that each of the resulting components is in full compliance and achieves accounting balance on that date.

A provision for a block of life risk obligations on a given valuation date will have been *ultimately sufficient* relative to an allowable asset allocation if, in the end, all benefits could have been paid as promised from the net cash flows generated directly or indirectly by the assets assigned to the block and by the considerations associated with the block. The likelihood on a given date, based on a valid actuarial model, that a provision will be ultimately sufficient relative to a specific allowable asset allocation is called the *indicated level of adequacy* of the provisions relative to the asset allocation. If the actuarial value calculated using a valid actuarial model of the system, or of a component consisting of a block of

life risk obligations and the assets assigned to the block by an allowable asset allocation, is negative for a given scenario under that model, the absolute value of that actuarial value is called the *indicated current deficiency* of the system or of the block for that scenario.

## ***B. PRINCIPLES***

- 1. PRINCIPLE (Likelihood of Ultimate Sufficiency). The likelihood on a given valuation date that a provision for a block of life risk obligations will be ultimately sufficient relative to a specific allowable asset allocation depends upon:**
  - (a) the risk subjects covered,**
  - (b) the actuarial risks involved,**
  - (c) the future obligations and considerations arising from the financing of these risks,**
  - (d) the assets allocated to the block on the valuation date, and**
  - (e) the strategy for reinvesting or financing net future cash flows.**

DISCUSSION. The likelihood of ultimate sufficiency for a block of life risk obligations depends on the enumerated factors, which represent aspects of the life insurance and annuity system. Each of these factors is in turn affected by external influences, such as the economic environment. The enumeration is not complete; for example, factors such as management capability may come into play. The actuarial risks may include risks besides those for which the financial security system was instituted. Some of the actuarial risks may involve events that fail to qualify as insurable events, for example, by being subject to control by an insured. Future obligations may include contractual benefits, such as withdrawal benefits and the payment of nonguaranteed elements, in addition to life insurance and annuity benefits. The premium structure of the life insurance and annuity system may also affect ultimate sufficiency. For example, if this structure involves broad groupings, ultimate sufficiency may be affected by adverse selection. The extent to which future obligations and considerations may be varied to reflect future circumstances will also affect ultimate sufficiency.

The ultimate sufficiency of the provision is affected by the cash flows generated by the assets allocated to the block and by investments of positive net cash flows and financing requirements for negative net cash flows. The cash flows, in turn, are not certain as to receipt or timing of receipt. Alternative sets of such assets may have the same accounting value but may generate significantly different cash flows and thus may have a different result as regards ultimate sufficiency. Constraints on allowable allocations will reduce the ways available to fund the obligations and thus may require a larger provision to achieve ultimate sufficiency. Conversely, the adoption of a strategy for reinvesting or financing net future cash flows that is capable of responding to potential changes in future obligations and considerations may reduce the provision that is required to achieve this goal.

The definition of ultimate sufficiency assumes that (a) the block of obligations is closed and (b) the net cash flows generated directly or indirectly from the initial assets and from subsequent considerations remain in the component until needed to fund the obligations. In theory, it is possible to track all cash flows deriving from the initial assets and subsequent considerations and reinvestments of cash flows. However, in real life applications, such investments may be in "assets" such as new business strain, which involve complex, hard-to-monitor cash flows.

Since ultimate sufficiency can be verified only in unrealistically simple situations, the ability to estimate the likelihood of ultimate sufficiency is of more theoretical than practical value. However, this theoretical possibility allows the use of actuarial models to test the choice of provisions (together with the choice of assets allocated to the block) and to determine relative likelihoods. As a practical matter, the model

usually involves simplifying assumptions, such as a reinvestment assumption that ignores any use of future cash flows to fund new business.

**2. PRINCIPLE (Estimation of the Likelihood of Ultimate Sufficiency). Any valid actuarial model that takes account of the dependencies enumerated in Principle 1 can be used to estimate the likelihood that a provision for a block of life risk obligations will be ultimately sufficient relative to a specific allowable asset allocation.**

DISCUSSION. Models used to estimate the likelihood of ultimate sufficiency may vary with respect to the degree of summarization of in-force data, the extent of refinement of the actuarial assumptions used, and the stochastic representation of various actuarial risks, among other factors. Among the models incorporating appropriate dependencies, no one unique model is selected by the validation process. It is not possible to state that the indicated level of adequacy from one such valid model represents a better estimate of the likelihood of ultimate sufficiency than the indicated level of adequacy from another such valid model.

The indicated level of adequacy depends on the assumptions inherent in the actuarial model, including aspects of the assumed future economic environment. The indicated level of adequacy is prospective, but the actuarial model is generally validated against past experience. It is incorrect to conclude on the basis of subsequent experience that the actuarial assumptions were inappropriate or that the indicated level of adequacy was overstated or understated.

Historical validation of economically sensitive elements, in particular, is useful only if the past period used for validation resembles the current period with respect to economic conditions.

If an actuarial risk variable is associated with events that do not qualify as insurable events, stochastic modeling may not result in useful estimates.

**3. PRINCIPLE (Changes in the Indicated Level of Adequacy). The indicated level of adequacy calculated on a date subsequent to an original valuation date can differ from the originally calculated indicated level of adequacy, even if the respective models have the same degree of accuracy and the assumptions regarding future events are unchanged and remain appropriate.**

DISCUSSION. Recalculation of the indicated level of adequacy after the passage of time will normally result in a changed value, even if the life insurance and annuity system appears unchanged. To begin with, the assumption set required to produce the estimate is reduced with the passage of time, especially for a closed block, that is, a block of life risk obligations into which no new business has been injected. This is true even if assumptions remain appropriate. Assumptions may be considered appropriate if deviations can be explained as random fluctuations and if no information is available indicating that changes in the assumptions should be made. While a later estimate may be considered to be a better estimate, this does not mean that the indicated level of adequacy will converge smoothly to a value. To be sure, for a closed block, as time passes, if the assets begin to exceed the expected value of future obligations, the indicated level of adequacy may approach one. Conversely, if the expected future obligations exceed the assets and all expected future investment income and considerations, the indicated level of adequacy will approach zero. However, there are many situations in which an intermediate value will remain appropriate until the cash flows and cash flow requirements of the block are nearly complete. Significant fluctuations may occur close to the end of this process.

Nevertheless, the indicated level of adequacy can be an important tool for managing a block of liabilities. For example, if the block is managed so that the indicated level of adequacy remains above a fixed level,

possibly by injecting additional assets from time to time, the likelihood of fulfilling the obligations of the block may be enhanced.

**4. PRINCIPLE (Aggregation). For some life insurance and annuity systems, the aggregate provision required to achieve a given indicated level of adequacy will be reduced if two or more selected blocks of life risk obligations are combined into a single block.**

DISCUSSION. Equivalently, for some blocks the indicated level of adequacy may be increased by combining the associated components without adding or substituting assets. This effect, sometimes referred to as "liability-side hedging," may arise from negative correlations between the risks in different blocks (for example, mortality improvement risks associated with life insurance and annuities) or from the fact that the combined block may require net cash flows that are easier to fund with the cash flows of available assets than would be the case for the blocks taken separately. An example of this latter situation is a combined block of deferred and immediate annuities. Note that this effect is distinct from the reduction in aggregate provision that occurs if provisions whose indicated levels of adequacy exceed the required level are reduced, provisions whose indicated levels of adequacy fall short of the required level are increased, and assets are appropriately reallocated.

**5. PRINCIPLE (Current Deficiencies). Two or more blocks of life risk obligations with provisions having the same indicated level of adequacy relative to a valid actuarial model may have different indicated current deficiencies relative to a given scenario under the model.**

DISCUSSION. The indicated current deficiency for a given scenario can be determined as the amount of cash that must be added to the component to pay all obligations under that scenario. The likelihood that benefits will be paid (indicated level of adequacy) is distinct from the indicated current deficiencies for those scenarios under which benefits are not expected to be able to be paid. The actuarial values for a given scenario under a valid actuarial model of two components may differ, even if the provisions for the associated blocks of obligations have the same indicated levels of adequacy relative to that actuarial model when all tested scenarios are considered. This may be caused either by differences in the initial assets or differences in the actuarial risks, risk subjects, or obligations involved. Calculation of the indicated current deficiencies under various scenarios may be useful in surplus planning, solvency testing, and the management of industry guarantee associations.

## ***C. CONSIDERATIONS***

### ***1. Provision Methodologies***

One of the typical elements of an insurance accounting system is a methodology for establishing provisions for risk obligations.

Historically, the most common methodology involved formula reserves. A "formula reserve" is one of a set of values, assigned by a rule or formula, representing the provision to be established at each of a given set of future dates ("valuation dates") for the risk obligations remaining or projected to be remaining from a given block on that date. An "actuarial formula reserve" for a block as of a given valuation date relative to a given actuarial model is the formula reserve under which the provision at that valuation date equals the actuarial value at that date of the future cash flows arising from the obligations of the block less the actuarial value at that date of the future considerations payable to the block projected by the actuarial model. Statutory reserves and GAAP benefit reserves (under *SFAS 60*) in the U.S. are examples of an actuarial formula reserve. In both cases, calculated net premiums are used in place of actual gross premiums. This substitution represents an assumption in the actuarial model regarding expenses and

profits. A desirable feature of actuarial formula reserves is the ability to calculate values as of future valuation dates.

An alternative approach is the "asset adequacy method," in which the provision for a block of risk obligations is taken to be the minimum aggregate accounting value of assets that allow the provision to attain a given indicated level of adequacy relative to an allowable asset allocation. The indicated level of adequacy for a provision calculated under the asset adequacy method is obviously predetermined, but, unlike the actuarial formula method, provisions as of future valuation dates are not easily projected.

When an accounting method includes a provision methodology that allows the projection of provisions required or desired as of future dates, another concept of adequacy may be of interest. The "indicated level of accounting adequacy" is an estimate of the likelihood as of a given valuation date that, in addition to paying all benefits as promised, the accounting values of the assets allocated to the block will exceed the projected provisions at each of a defined set of future dates. It is clear that the indicated level of accounting adequacy, if available, will always be less than or equal to the indicated level of ("economic") adequacy on the same valuation date. In other words, accounting adequacy is a stricter test because it does not allow shortfalls of assets relative to projected provisions for a block to be financed from possible future excesses.

## ***2. Actuarial Submodels***

Actuarial models used in developing or testing the provision made by life insurance and annuity systems relative to life actuarial risks usually involve several actuarial submodels. Typical submodels are associated with such actuarial risks as mortality, lapse, and investment default.

The validity of the actuarial model depends on which actuarial risks are represented by submodels and whether the submodels are valid or potentially valid. Among valid or potentially valid submodels, those which take account of "induced experience" (see Principle 4.4 in the Glossary) and future "antiselection" (see Principle 4.3 in the Glossary) are more likely to remain valid at future times.

## ***3. Dependence on Status***

The actuarial model used to calculate or test provisions may depend on the status of an insured event. For example, an actuarial model used in connection with provisions for obligations associated with events that have already occurred (for example, claim provisions for death benefits) or that are currently occurring (for example, provisions for annuities in payment status) may incorporate greater detail on the amount and timing of payments in progress, while a model used in connection with provisions for events that have yet to occur may incorporate greater detail on present-value assumptions.

#### ***4. Provision for Expenses***

Normally, the expenses incurred in fulfilling the benefit obligations of a block are considered obligations of that block. If, as in the case of expenses related to claim payment, expected future expenses are provided for by considerations already received, an expense provision can be established. Conversely, if an expense that has been incurred is to be provided for by cash flows at one or more later dates, an offset to the provision can be used to defer recognition of the expense, or a portion thereof, until those dates.

#### ***5. Asset Allocation***

The range of allowable asset allocations will affect the indicated level of adequacy of provisions. Variations in this range from year to year may affect comparability. Absent separate accounts or other contractual arrangements, the allocation of assets to a block creates no legal or contractual right to specific assets. Moreover, again absent separate account or other contractual arrangements, the loss associated with the default of an asset need not be charged solely to the component to which the asset has been assigned.

#### ***6. Experience Adjustment***

Provisions may be based, in whole or part, on the experience of the life insurance and annuity system. Provisions may be adjusted if the experience of the life insurance and annuity system differs materially from that originally assumed. If the adjustment is made only if the new provision is larger than the old, the process is called "loss recognition." If periodic experience adjustments are required and if a pattern can be discerned, projected provisions at future valuation dates may be adjusted to reflect this pattern. This process is referred to as "trending."

#### ***7. Treatment of Profit Margins or Contributions to Surplus***

The actuarial model associated with an actuarial formula reserve may specify the treatment of profit margins or contributions to surplus. Some models recognize these margins currently; others spread the margins over the life of the block of obligations, either explicitly or by the inclusion in assumptions of "provisions for adverse deviation."

#### ***8. Other Obligations***

The term "other obligations" is used to indicate obligations of the life insurance and annuity system not arising from the actuarial risks assumed by the system. The existence of other obligations may limit the allowable asset allocations. For example, an obligation for incurred expense may need to be backed by cash, reducing the cash available for assignment to other blocks of obligations.

**Note:** The following glossary of Principles and Definitions was originally published as part of "Principles of Actuarial Science," by the Society of Actuaries Committee on Actuarial Principles, in *Transactions of the Society of Actuaries*, Volume XLIV, 1992, pp. 565-91.

## GLOSSARY

### PRINCIPLES OF ACTUARIAL SCIENCE

- 1.1 **PRINCIPLE (Statistical Regularity).** Phenomena exist such that, if a sequence of independent experiments is held under the same specified conditions, the proportion of occurrences of a given event stabilizes as the number of experiments becomes larger.
- 1.2 **PRINCIPLE (Stochastic Modeling).** A phenomenon displaying statistical regularity can be described by a mathematical model that can estimate within any desired degree of uncertainty the proportion of occurrences of a given event in a sufficiently long sequence of experiments.
- 2.1 **PRINCIPLE (Diversity of Preferences).** Different people may assign different current monetary values to the same economic good.
- 2.2 **PRINCIPLE (Time Preference).** Money has time value; that is, people tend to prefer receiving money in the present to receiving that same amount of money in the future.
- 2.3 **PRINCIPLE (Present Value Modeling).** For many persons, there exists a mathematical model that can estimate the current monetary value that the person would assign to any future cash flow.
- 3.1 **PRINCIPLE (Modeling of Actuarial Risks).** Actuarial risks can be stochastically modeled based on assumptions regarding the probabilities that will apply to the actuarial risk variables in the future, including assumptions regarding the future environment.
- 3.2 **PRINCIPLE (Validity of Actuarial Models).** The change over time in the degree of accuracy of an initially valid actuarial model depends upon changes in:
  - a. the nature of the right to receive or the duty to make a payment;
  - b. the various environments (regulatory, judicial, social, financial, economic, etc.) within which the modeled events occur; and
  - c. the sufficiency and quality of the data available to validate the model.
- 3.3 **PRINCIPLE (Combinations of Cash Flows).** The degree of uncertainty of the actuarial value of a combination of cash flows reflects both the uncertainties affecting each underlying actuarial risk variable and the process of combination.

- 4.1 PRINCIPLE (Risk Classification).** For a group of risks associated with a given actuarial risk, it is possible to identify characteristics of the risks and to establish a set of classes based on these characteristics so that:
- a. each risk is assigned to one and only one class; and
  - b. probabilities of occurrence, timing and/or severity may be associated with each class in a way that results in an actuarial model which, for some degree of accuracy, is:
    - (1) valid relative to observed results for each class or group of classes having sufficient available data, and
    - (2) potentially valid for every class.
- 4.2 PRINCIPLE (Pooling).** If the actuarial risk associated with a risk classification system displays statistical regularity, it is possible to combine risk classes so as to ensure that there is an actuarial model associated with the new set of risk classes that is valid within a specified degree of accuracy.
- 4.3 PRINCIPLE (Antiselection).** If the premium structure of a voluntary insurance system is based on a risk classification system such that a refinement of the system could result in significant differentials in considerations between risks originally assigned to the same class, there will be a tendency for relatively greater participation by those whose considerations would increase if the refinement were put in place.
- 4.4 PRINCIPLE (Induced Experience).** The experience rates for events associated with a financial security system will tend to differ from those for the same events in the absence of any such system.
- 4.5 PRINCIPLE (Insured Experience).** The experience rates for the insurable events of an insurance system will tend to differ from the overall rates of occurrence of the same events among all those subject to a given actuarial risk.
- 4.6 PRINCIPLE (Avoidance of Ruin).** For most ruin criteria, there are combinations of values of the financial parameters that will reduce, below a given specified positive level, the ruin probability relative to an actuarial model.
- 4.7 PRINCIPLE (Actuarial Soundness).** For most financial security systems, there are combinations of margins that will produce, relative to a valid actuarial model, a degree of actuarial soundness that exceeds a given specified level less than one.

## DEFINITIONS

The assumptions upon which an actuarial model is based are called **actuarial assumptions**.

A model described by Principle 3.1, together with a present value model if applicable, is called an **actuarial model**.

An **actuarial risk** is a phenomenon that has economic consequences and that is subject to uncertainty with respect to one or more of the **actuarial risk variables**: occurrence, timing, and severity.

The **actuarial value** of a future cash flow that is contingent upon actuarial risk variables is the present value developed by an actuarial model associated with the actuarial risk variables.

The **actuarial value of a financial security system** relative to a given actuarial model is the actuarial value, developed by the model, of the combination of cash flows associated with assets, obligations, and considerations of the system.

An **asset** is money or economic goods held, or a right to receive future cash flows; an *obligation* is a duty to provide current or future cash flows.

A *financial security system* is an arrangement for risk financing in which one person assumes the obligation to make a payment (or series of payments), called a **benefit (benefits)**, that offsets undesirable economic consequences that may be experienced by a second person in return for the payment, by or on behalf of the second person, of one or more amounts, called *considerations*.

A **cash flow** is the receipt or disbursement at a point in time of an amount of money (or of an economic good with a monetary value).

A *financial security system* is an arrangement for risk financing in which one person assumes the obligation to make a payment (or series of payments), called a *benefit (benefits)*, that offsets undesirable economic consequences that may be experienced by a second person in return for the payment, by or on behalf of the second person, of one or more amounts, called **considerations**.

A cash flow whose occurrence or amount depends on the occurrence of an event that is not certain to occur is said to be **contingent**.

**Credibility** is the importance assigned to the experience of a given risk class or group of risk classes relative to other information for the purpose of experience adjustment.

The amount of money a person is willing to trade for a good at a specific point in time is the good's **current monetary value** to that person.

A measure of the probability that a financial security system is likely to be able to pay all benefits as promised is called the **degree of actuarial soundness** of the financial security system.

A **deterministic model** is a simplified stochastic model in which the proportion of occurrences of a given event estimated by the stochastic model is assumed to occur with probability one.

An **economic good** is something which has value to a person and which the person may consider exchanging for something else.

The result of an experiment is called an *outcome*; an **event** is a set of one or more possible outcomes.

The probability-weighted average of the numerical values taken on by a random variable is called the **expected value** of the random variable.

The **experience** of a financial security system is the data obtained in the operation of the system.

An **experience adjustment** is a change in considerations or benefits applicable to the various risk classes to reflect the experience of the financial security system.

Estimates, based on such data, of rates of occurrence or amounts of payment related to an actuarial risk are called **experience rates**.

An **experiment** is an observation of a given phenomenon made under specified conditions.

If the actuarial value can be expressed as a function of any variable associated with the financial security system and independent of the actuarial model, that variable is called a **financial parameter** of the financial security system.

A **financial security system** is an arrangement for risk financing in which one person assumes the obligation to make a payment (or series of payments), called a *benefit (benefits)*, that offsets undesirable economic consequences that may be experienced by a second person in return for the payment, by or on behalf of the second person, of one or more amounts, called *considerations*.

An event is said to be **insurable** if:

- a. it is associated with a phenomenon that is expected to display statistical regularity;
  - b. it is contingent with respect to number of occurrences, timing and/or severity;
  - c. the fact of its occurrence is definitely determinable;
  - d. its occurrence results in undesirable economic consequences for one or more persons;
- and
- e. its future occurrence, timing and/or severity are neither precisely known nor controllable by these persons.

A person is said to have an **insurable interest** in an insurable event to the extent that the occurrence of the event creates an economic need involving that person.

An **insurance system** is a financial security system in which:

- a. the actuarial risks to be financed arise from insurable events;
- b. the risk subjects are grouped according to a risk classification system;
- c. the benefits payable are related to an insurable interest;
- d. the actuarial value of benefits payable, developed by an actuarial model associated with the risk classification system, is finite; and
- e. considerations are consistent with the actuarial value of the associated benefits.

An insurance system is **mandatory** if all persons in a group or in society are required legally or otherwise to participate; otherwise, it is voluntary. It is a **personal insurance system** if the decision to participate is made by each insured individually; it is a **group insurance system** if the decision is made on behalf of a group, although participation may be mandatory or voluntary for the members of the group; and it is a **social insurance system** if all members of society (or a defined subgroup of society) are eligible to participate.

The entities to which actuarial risk is transferred in an insurance system (whether private or governmental) are called **insurers**.

The amounts by which the values of financial parameters can be changed without reducing the expected actuarial value of the financial security system below zero are called **margins**.

A **mathematical model** is a scientific model in which the representation is expressed in mathematical terms.

**Money** is a means of exchange which may be traded for economic goods.

A *refinement of a risk classification system* is a risk classification system formed from another by subdividing one or more classes. If there are actuarial models associated with the original risk classification system and with the refinement such that these models assign the same probabilities of occurrence, timing and/or severity to classes that were not subdivided, but they assign differing probabilities to one or more of the subdivisions of at least one class, the refinement is said to be **more homogeneous** than the original system.

An *asset* is money or economic goods held, or a right to receive future cash flows; an **obligation** is a duty to provide current or future cash flows.

The result of an experiment is called an **outcome**; an *event* is a set of one or more possible outcomes.

**Phenomena** are occurrences which can be observed.

The process of combining risk classes described in Principle 4.2 is called **pooling**.

A mathematical model is **potentially valid** if it produces results that are consistent with available observations of the modeled phenomena and of similar phenomena and is capable of being validated relative to the specified observed results when sufficient data are available.

The **premium structure** of an insurance system is a set of considerations that reflect the assignment of risks to various risk classes.

The estimate of the current monetary value of a future cash flow given by a present value model under a fixed assumption regarding future economic conditions is called the **present value** of the cash flow relative to that assumption.

A model described by Principle 2.3 is called a **present value model**.

**Probability** is a measure which takes on values from zero to one and gives the likelihood of occurrence of an event.

A rule which assigns a numerical value to every possible outcome is called a **random variable**.

A **refinement of a premium structure** is a premium structure based on a refinement of a risk classification system.

A **refinement of a risk classification system** is a risk classification system formed from another by subdividing one or more classes.

A set of classes, a set of characteristics and a set of rules for using the characteristics to assign each risk to a class in such a way that the conditions of Principle 4.1 are satisfied with respect to a given group of risks is called a **risk classification system**. These classes are called **risk classes**, and the rules used for assigning risks to risk classes are called *underwriting rules*.

**Risk control** is a process that reduces the impact of one or more of the actuarial risk variables associated with the actuarial risk.

**Risk identification** is a process for determining whether a given person or object is a risk subject for a given actuarial risk.

A **risk management system** is an arrangement involving one or more of risk identification, risk control, and risk transfer or risk financing.

A person or object involved in an event associated with an actuarial risk is called a **risk subject** or **risk**.

**Risk transfer** or **risk financing** is a mechanism that provides cash flows that are contingent upon the occurrence of an event associated with the actuarial risk and that tend to offset undesirable economic consequences.

**Ruin** occurs when a financial security system first fails to satisfy all conditions required to remain in operation.

The statement of the conditions under which ruin occurs is called the **ruin criterion**.

The probability that ruin will occur within a specified period of time, as calculated using an actuarial model, is called the **ruin probability** of the financial security system relative to that model within that period of time.

The estimate of the current monetary value of a future cash flow given by a present value model under a fixed assumption regarding future economic conditions is called the *present value* of the cash flow relative to that assumption. Such a fixed assumption regarding future economic conditions is called a **scenario**.

A **scientific model** is an abstract and simplified representation of a given phenomenon.

A phenomenon to which Principle 1.1 applies is said to display **statistical regularity**.

A model satisfying Principle 1.2 is called a **stochastic model**.

The rules used for assigning risks to risk classes are called **underwriting rules**.

A mathematical model is said to be **valid within a specified degree of accuracy** relative to certain observed results if it reproduces these results within that degree of accuracy.

The process of determining the actuarial value of a financial security system is called a **valuation**.

## **GUIDELINES FOR ACTUARIAL PRACTICE IN GROUP TERM LIFE INSURANCE (Adopted 2000)**

### **1. INTRODUCTION**

The guidelines recommended herewith are based on the application of the Principles and Methodologies in the practice of Group Insurance Underwriting and Pricing in the Philippine life insurance industry.

The set of recommendations was prepared by the Ad-hoc Committee on Group Pricing of the Actuarial Society of the Philippines (ASP), and is a compilation of the combined experience of the Group actuarial practitioners in the ASP.

### **2. PRINCIPLES OF GROUP SELECTION**

In preparing the Guidelines, the following principles were observed:

- 2.1 The group to be insured is composed of persons that have been organized for a purpose other than to obtain group insurance.
- 2.2 There is a steady flow of persons in and out of the group, as to achieve stability in the risk that is being insured.
- 2.3 A minimum participation requirement is imposed to minimize anti-selection and achieve a greater spread of the risk.
- 2.4 The amount of benefits is determined not by individual selection. It may be uniform or based on one of the factors inherent in the group, such as, salary, years of service, employment rank, amount of indebtedness or pre-need price.
- 2.5 The insurance cost is shared by averaging premiums for all ages of persons belonging to the group.
- 2.6 The administration of the group insurance plan is done by one person or organizational unit of the employer, association, or pre-need company, to achieve efficient collection of premiums and personal data from the persons insured.
- 2.7 The group to be insured is not generally required to be individually subject to medical examination or other evidence of insurability, except for individuals with large amounts of insurance cover, with ages beyond set limits, or for those classified as belonging to a non-standard risk class.
- 2.8 One single master insurance policy contract covers the entire group and it is issued to the policyholder, which may be the employer, association, or creditor, of the persons insured. However, individual group insurance certificates are issued to each person covered.
- 2.9 Although generally renewable yearly, group insurance contracts are considered of continuing nature whereby the plan may outlive individual members.
- 2.10 Premiums may be subject to experience rating at the end of each term when adjustment in renewal premium and/or experience refund are/is determined.

### **3. DEFINITION OF TERMS**

- 3.1 Evidence of Insurability (EI). This may be a Health Declaration (short health questionnaire) or a Long Medical Questionnaire. It may also be a simple or comprehensive medical examination and/or medical procedure, and is required depending on the amount of insurance.
- 3.2 No Evidence Limite (NEL). Also called free cover limit, this is the maximum amount of insurance cover for an individual below which no evidence of insurability is required from that individual to be accepted into the group.
- 3.3 Non-Medical Limit (NML). This is the maximum amount of insurance cover for an individual for which submission of a simple Health Declaration or a Long Medical Questionnaire is sufficient compliance. Above this limit, the individual is required to undergo a medical examination.
- 3.4 Closed and Open Groups. A closed group refers to a group wherein individuals to be covered by insurance are subject to a rigid criterion such as employment. An open group refers to a group wherein individuals to be covered by insurance are subject to less rigid criteria such as membership in an association, or as debtor in a creditor group life insurance, or as planholder of a pre-need company.

### **4. UNDERWRITING GUIDELINES**

#### Initial Underwriting

- 4.1 The following are the information generally considered in the underwriting of group term insurance: type of group (closed or open), age, industry class, gender, amount of insurance, employment status, employment classes, years of service, and some evidence of insurability such as a Health Declaration or Long Medical Questionnaire. For individual members of the group whose amounts of insurance exceed the NEL or NML set by the company in accordance with its underwriting policy, the standards for individual underwriting shall apply.
- 4.2 To achieve a reasonable spread of risk, the amount of benefit is determined in an automatic manner that precludes a member from selecting against the company.
  - 4.2.1 For closed groups, the amount of benefit is a uniform amount or a multiple of annual salary, or an amount based on employment rank or years of service, whereby the levels are of a reasonable relationship to the compensation levels for each category.
  - 4.2.2 For open groups, the amount of benefit is a uniform amount or an amount based on indebtedness, pre-need price, depositors' account balance, equities in provident funds, etc. The amount of insurance cannot be freely chosen by the insured member.
- 4.3 The level of Non-Medical Limit and/or No-Evidence Limit is set such that it bears a reasonable relationship to the risk inherent in the group, whether open or closed.

- 4.4 All the members in employee groups that are to be insured must be actively-at-work (as defined by the insurer) at the effective date of the insurance.
- 4.5 For contributory plans, enrollment must be within a prescribed period from date of eligibility. Otherwise, evidence of insurability is required.

#### Renewal Underwriting

The following are guidelines for underwriting group term life insurance at renewal date:

- 4.6 The minimum number or the minimum proportion of the group of persons to be covered is still satisfied at renewal time.
- 4.7 The membership in the group coverage must be updated using a report of the new entrants and terminations during the previous period.
- 4.8 The benefit schedule must be updated, if necessary.
- 4.9 Underwriting and eligibility requirements must be reviewed and updated based on the group claims experience.
- 4.10 The premium rate must be verified for adequacy after considering the changes required in the actuarial assumptions and other factors in pricing.

#### Reinsurance

- 4.11 In situations where amounts of insurance are beyond retention limits and maximum acceptance limits as defined in the reinsurance agreement, facultative reinsurance cover must be arranged.
- 4.12 In arranging for appropriate reinsurance cover, catastrophic hazards involving two or more deaths in a single event must be considered.

#### Underwriting Guidelines for Open Groups

While an open group may qualify as one composed of persons that were not organized to obtain insurance but for some other purpose, the underwriting standards for closed groups should be modified and adapted for each specific type of open group.

- 4.13 A minimum participation requirement should be specified as that consistent with what was assumed in the pricing.
- 4.14 Lower underwriting limits than closed groups are generally provided to open groups. In general, coverages are not issued on a No-Evidence basis.
- 4.15 A higher average age is generally expected from open groups.

- 4.16 Individual underwriting is generally very limited in open groups.
- 4.17 Credit Life policies covering debtors are also bound by guidelines for open groups.
- 4.18 For a pre-need group, the following are some suggested underwriting and pricing guidelines:
  - 4.18.1 For pre-need groups, the coverage is normally expressed as a function of some pre-determined amount provided in the plan, such as the pre-need price or the maturity value. The maximum amount must be verified so that the coverage for each plan does not exceed the maximum amount limit set in the group term insurance policy. The insured members in pre-need groups are individually solicited; thus it is advisable to have lower maximum limits in the amount of insurance than the limits for closed groups.
  - 4.18.2 A higher estimated average age than that assumed for an employee group should be used to take into consideration the difference in the composition of a pre-need group of insured planholders.
  - 4.18.3 Other underwriting information for employee groups, such as employment class, employment status and other underwriting safeguards like an actively-at-work proviso are for practical reasons, not applicable to pre-need groups. Thus underwriting requirements will have to be more rigid.
  - 4.18.4 In the pricing of the group term insurance for pre-need planholders, additional elements of cost must be taken into consideration, considering the diverse membership of a pre-need group. The requirement to issue individual certifications to pre-need planholders is an important element of cost.
  - 4.18.5 In the regulation of securities by the SEC, more disclosure is required, hence a group insurance contract with a set of terms and conditions specific to pre-need must be prepared. The following Guidelines issued by the Insurance Commission for Group Yearly Renewable Term Insurance covering pre-need should also be given due consideration in drawing up the group insurance contract, and in allocating cost of administration of this particular group.
    - 4.18.5.1 The term “Policyholder” whenever used in the group policy shall mean the pre-need company as custodian of said policy.
    - 4.18.5.2 The life company shall issue to the pre-need company for delivery to each planholder an individual certificate setting forth a statement as to the insurance protection to which he is entitled, to whom the insurance benefits are payable, and the rights set forth in paragraphs (h), (i), and (j) of Section 228 of the Insurance Code.
    - 4.18.5.3 The planholder shall bear the entire cost of his group insurance.
    - 4.18.5.4 The proceeds shall be payable to the designated beneficiary of the planholder in the event of his death.

## 5. CLASSIFICATION OF GROUP ACCOUNTS

- 5.1 New Accounts. These are groups that have had no prior group insurance program.
- 5.2 Transfer Accounts. These are group accounts that have had prior group programs whether insured or self-insured. These include take-over accounts, where the insurance company that has taken over adopts the terms and conditions of the previous contract in its entirety.
- 5.3 Renewal Accounts. These are yearly renewable group insurance contracts that are already with the life insurance company, and are due for renewal.

## 6. PRICING CONSIDERATIONS

- 6.1 When pricing group insurance, distinction should be made in the pricing assumptions between refunding and non-refunding accounts.
- 6.2 Pooling and experience rating concepts may be applied to groups with low credibility, e.g., less than 1,000 members per group. The experience of groups with high credibility may be considered self-sufficient for pricing purposes.
- 6.3 The minimum gross premium for New Accounts must consider the net risk premium plus all applicable taxes and adequate loadings. An appropriate mortality table, either a published standard table or one arising from the company's own mortality experience, shall be used to estimate the net risk involved.

Expense loading assumptions should be based on an expense study applicable to the experience of the company or of companies with comparable experience.

Premium tax, documentary stamp tax, municipal tax and other annual taxes shall form part of loadings for expenses.

Maximum interest rate, if used in pricing, is 6%.

Because of the disproportionately high documentary-stamp-tax rate of P2.50 per P1,000 of the amount insured, some companies decide on spreading this one-time tax charge over a period of five years. The insurance company is thus subject to the risk of inadequate expense loading for taxes paid, in case the group insurance contract is terminated before the end of the five-year period.

- 6.4 Additional or reduced mortality, and/or occupational loadings may be considered in the pricing if appropriate to the profile of the group, and justified by prior years known experience.
- 6.5 For Transfer and Take-over accounts, the claim experience of the account should be the basis for pricing, subject to adjustment, using credibility factors, and any changes in the terms and conditions of the existing group insurance contract, as approved by the Insurance Commission.

- 6.6 For Renewal accounts, net premiums are usually based on the expected mortality of the group as indicated by actual claims experience. A credibility factor depending on size, risk profile of the group, type of coverage, and other relevant characteristics of the group, may be applied. If revisions in the group contract are contemplated, the actuary is advised to evaluate the effects of the revisions on all the elements of pricing.

## **7. RESERVES IN GROUP TERM INSURANCE**

- 7.1 Reserves are determined on a group basis, and are computed from data that have been verified to be complete and correct to the best extent possible.
- 7.2 Among the reserves to be set up are unearned premium reserves, reserves for due and unpaid claims, claims in course of settlement (ICOS) and incurred but not reported claims (IBNR), reserves for experience refunds, reserves for extended disability or waiver of premium benefits, and reserves for conversion options, if any are provided in the contract.
- 7.3 Certain provisions in the reinsurance agreement are considered in setting up the insurer's reserves.
- 7.4 Changes in age and projected claim trends are factors that are considered in the valuation of claim fluctuation reserves.

## **8. LEGAL AND REGULATORY REQUIREMENTS**

The actuary shall make sure that the group master insurance policy contract, individual insurance certificates, application forms, and other forms to be used are approved by the Insurance Commission. The actuary shall coordinate with a lawyer in the preparation of the group insurance contract if no applicable contract already previously approved can be used for the group to be insured. The applicable provisions of the Insurance Code must be followed.

## **GUIDELINES GOVERNING IMPLEMENTATION OF AMENDED PRE-NEED RULE 31 (PNUCA) (Issued February 1, 2008)**

These Guidelines are being issued by the Actuarial Society of the Philippines for its members in their actuarial practice when “computing” and “validating” pre-need liabilities in accordance with Pre-Need Rule 31, as amended. Since these Guidelines pertain only to the implementation of Amended Pre-Need Rule 31, these Guidelines do not supersede the ASP’s previously issued “Guidelines to Actuarial Practice in Pre-Need” adopted on November 18, 2005. Statements in the November 18, 2005 Guidelines not contradictory to statements in these Guidelines are deemed applicable to these Guidelines as well.

Pre-Need Rule 31 states that the “revised requirements on reserving and liability recognition of pre-need companies” cover the audited financial statements *for the period ended December 31, 2007 and thereafter*.

Pre-Need Rule 31 also states that Associates and Affiliates of the ASP will be allowed to compute and validate Pre-Need Reserves. Thus, these Guidelines apply to all members of the ASP.

The responsibilities of ASP members with respect to Pre-Need practice are as follows:

1. **Fellows (Actuaries)** --- Product Design and Pricing, Valuation of Actuarial Reserve Liability (ARL), Computation and Validation of Pre-Need Reserves (PNR)
2. **Associates and Affiliates** --- Computation and Validation of PNR

The following requirements under Pre-Need Rule 31, as amended require the special attention and interpretation of the Actuary / Associate / Affiliate:

1. *“12 (b) In recognizing the Pre-need Reserves (PNR) for educational and pension plans, the general requirements of PAS 37 on provisioning and the specific methodology provided under this item shall be complied with by the company. For life plans, the requirements of PFRS 4 (Insurance Contracts) shall be complied with by the company”*
  - 1.1. In using PAS 37 (please refer to the attached), the Actuary / Associate / Affiliate should not treat the PNR as a contingent liability. The Actuary should comment that this is a contractual, and not a contingent, liability.
2. *“12 (c) The amount recognized as a provision to cover the PNR shall be the best estimate of the expenditure required to settle the present obligation at the balance sheet date. The risks and uncertainties that inevitably surround many events and circumstances shall be taken into account in reaching the best estimate of a provision.”*
  - 2.1. The Actuary / Associate / Affiliate should interpret “present obligation” as present value of the obligation, not literally as only the present obligation, as such becomes inconsistent with the subsequent paragraph under item 12(d) of Pre-Need Rule 31, as amended.

2.2. Inflows and outflows from each policy are not guaranteed to occur, i.e. there are risks and uncertainties that may affect occurrence of the inflow or outflow. Given this, the Actuary / Associate / Affiliate should discount such inflows and outflows using interest and adjust the results to reflect the probability of occurrence of each risk or uncertainty. Risks and uncertainties include, but are not limited to, the following:

- Lapse – Lapsed plans are plans which are delinquent in payment and whose delinquencies extend beyond the grace period. Such plans have the option of reinstating, thereby restoring premiums and benefits for the plan. Lapsed plans whose delinquencies extend beyond a stated period are cancelled and all benefits are forfeited.
- Surrender – If a plan is surrendered, a termination benefit may be paid.
- Reinstatement – If a lapsed plan is reinstated, benefits and premiums for the policy will again be payable.
- Cancellation – If a plan is cancelled, all benefits, termination values, and installment payments will no longer be payable. Cancelled plans may not be reinstated.
- Death – If the payor of a policy dies, installments will no longer be payable. Benefits, however, are preserved. For some plans, if the payor of a policy dies, benefits or services become due.
- Disability – If the payor of a policy is disabled, premiums will no longer be payable. Benefits, however, are preserved.

3. *“12(d) Since the effect of the time value of money for pre-need plans is material, the amount of provision shall be the present value of the funding expected to be required to settle the obligation with due consideration of the different probabilities, as follows:*

*“(i) For currently being paid plans,*

*“(1) Provision for termination values shall consider the surrender rate experience of the company. The trend of surrender experience shall be disclosed in the company’s notes to financial statements.”*

- For each plan currently being paid, there is a possibility that a surrender will occur in the future. Upon such surrender, a termination benefit will be payable. The value of the termination benefit for each year in the future, discounted to the present, using interest and probability of surrender, will reflect the provision for termination values of this set of plans. The Actuary / Associate / Affiliate must disclose the surrender rate experience per policy year, or per relevant period, to the auditor, to be included in the company’s Notes to Financial Statements. Installment inflows are not considered in the provision for termination values as these are considered in the succeeding section discussing liability for plans that will become fully paid up.

*“(2) A liability for plans that will become fully paid shall be computed as equal to the present value of future maturity benefits reduced by the present value of future trust fund*

*contributions required in accordance to the “Product Model”. The discounting interest rate to be used is the ‘approved hurdle rate’ per Product Model.”*

- Each plan currently being paid which is neither surrendered nor cancelled will be entitled to benefit(s) in the future. For each such plan, the benefit(s) at each designated period after valuation date should be discounted to the present using interest and probability of persistency. Similarly, for each plan, the installment payment at each designated period after valuation date should be discounted to the present using interest and probability of persistency. The difference between the 2 discounted values will reflect the provision for benefit payment(s) for this set of plans.
- The Actuary / Associate / Affiliate should note that the provision resulting from the use of the hurdle rate per product model may not be sufficient to fund the benefits if investment income rates actually earned are lower than the hurdle rate used for valuing the provision/liability. This fact should be disclosed by the Actuary / Associate / Affiliate in any report to be submitted and in any certification to be issued by him/her.

*“(ii) On lapsed plans (meaning plans that have not completed missed due installment contributions within the 60-day grace period) within the allowable reinstatement period, provision for termination values applying the reinstatement experience of the company. The trend of reinstatement experience shall be disclosed in the company’s notes to financial statements;”*

- There is a probability that some of these plans could resume paying contributions. The Actuary / Associate / Affiliate should:
  - compute for the provision for such plans based on the actuary’s estimate of the probable number of plans that will be reinstated, and,
  - disclose the assumed rate of reinstatement to the auditor, and whether such assumption is based on the experience of the company or of other companies, for such disclosure to be indicated in the financial statements.

*“(iii) Fully Paid Plans, (Plans that have completed the required contributions to the Trust Fund). Pre-Need Rule 31, as amended allows that these be grouped in two batches, and separate provisions be computed for each.*

*“(1) For those due for payment within the next (5) five years (following the date provisions are computed), the reserve shall be the present value of future maturity benefits discounted at the attainable rate, as determined and certified by the company’s trustee, using industry best practices and principles which shall be indicated in such certification.”*

- In disclosing the assumptions, the Actuary / Associate / Affiliate should state that the provision resulting from the use of the interest rate determined by the trustee of the fund may not be the sufficient amount needed to represent the liability that should be in the trust fund to assure payment of the promised benefits defined in the pre-need contract, since the said rate assumed as of the date the plan’s trust fund contributions

were computed may differ from the actual average of the yield rates of the trust fund following that date.

*“(2) For those not yet due for payment within the next five (5) years (from date provisions are computed), the reserve shall be the present value of the future maturity benefits discounted at the approved hurdle rate per Product Model of the company.”*

- The effect of using the hurdle rate could reduce the amount of provisioning, should the hurdle rate be higher than the projected attainable yield rate of return of the trust fund.
  - In disclosing the assumptions, the Actuary / Associate / Affiliate should state that the provision resulting from the use of the hurdle rate may not be the sufficient amount needed to represent the liability that should be in the trust fund to assure payment of the promised benefits defined in the pre-need contract, since the hurdle rate assumed at the date the plan’s trust fund contributions were computed may differ from the actual average of the yield rates of the trust fund following that date. This fact should be disclosed by the actuary in any report to be submitted and in any certification to be issued by him/her.
4. *“12 (e) Future events that may affect the foregoing amounts shall be reflected in the amount of provision for PNR, where there is sufficient objective evidence that they will occur.”*
- 4.1. To comply with this requirement, the Actuary / Associate / Affiliate should disclose all assumptions used in determining the PNR. Refer to the paragraphs above requiring that the Actuary state that the provision resulting from use of such assumptions may not be sufficient to assure payment of promised benefits defined in the pre-need contract.
- 4.2. If validation is made by an Actuary:
- the Actuary should disclose the Actuarial Reserve Liability (ARL) computed in accordance with the Actuarial Society of the Philippines’ “Guidelines to Actuarial Practice in Pre-Need”.
  - the Actuary may apply the Liability Adequacy Test to determine the best estimate of the rate to be used. He/She should also disclose the basis used in determining the best estimate, and take into consideration all the applicable decrements in the formula for determining the liability.
5. *“12 (k) The disclosure requirements under PAS 1, relative to methods and assumptions used to estimate the PNR, including sensitivity of the PNR amount, shall be complied with.”*
- 5.1. The Actuary should include disclosures on the funding and reserving gaps.
- 5.2. The Actuary / Associate / Affiliate should disclose sensitivity of the PNR to adverse deviations in assumptions.

6. *“13 Other Reserves*

*“The company shall set up other provisions in accordance with PAS 37 to cover its obligations such as Insurance Premium Reserve.”*

6.1. Such amounts are to be valued by an actuary.

*“Unless the Commission shall so specifically require, a company may at its option set up other provisions as a prudent measure.”*

6.2. The Actuary / Associate / Affiliate should advise the pre-need company to set up as part of other provisions, i.e. Other Reserves, the excess of the ARL computed over the PNR, as a prudent measure.

7. Finally, for computations or validations being done by:

7.1. An Associate or Affiliate of the ASP, the attached validation certificate template in Annex “A” should be used in lieu of the validation certificate templates provided by the SEC in Interpretative Bulletin Number 1. Notably, Annex “A” contains the following qualifications not present in the original SEC template:

7.1.1. That the Pre-Need Reserves (PNR) were computed according to item 12 of SEC Pre-Need Rule 31, as amended, and may not be adequate to pay for all the contractual benefits of the Pre-Need Company

7.1.2. That the Actuarial Reserve Liability (ARL), computed in accordance with the Actuarial Society of the Philippines’ “Guidelines to Actuarial Practice in Pre-Need”, is the actuarially accepted measure of liabilities of a pre-need company and that the PNR may be significantly different from the ARL

7.1.3. That an accompanying Pre-Need Reserve Computation Report be prepared subject to the following guidelines

7.1.3.1. The Pre-Need Reserves for each type of plan should be shown

7.1.3.2. The assumptions for each class of reserves should be indicated. The Associate/Affiliate should ensure that such assumptions are NOT referred to as “Actuarial Assumptions”. Such assumptions should instead be referred to as “Pre-Need Reserve Assumptions”

7.1.3.3. The basis for the assumptions listed should be disclosed e.g. Discount Rate - based on SEC Pre-Need Rule 31, as amended.

7.1.4. That he/she is an Associate or Affiliate of the ASP as the case may be, and that he/she recommends that a Fellow of the ASP be asked to determine the ARL

- 7.2. an Actuary or Fellow of the ASP, the attached validation certificate template in Annex “B” should be used in lieu of the validation certificate templates provided by the SEC in Interpretative Bulletin Number 1. Notably, Annex “B” requires the following:
  - 7.2.1. That the Actuary determine and disclose the ARL following the Actuarial Society of the Philippines’ “Guidelines to Actuarial Practice in Pre-Need”
  - 7.2.2. That an accompanying Actuarial Valuation Report be prepared in accordance with the Actuarial Society of the Philippines’ “Guidelines to Actuarial Practice in Pre-Need”.

**Declarations on Computation of Pre-Need Reserves**

I have undertaken the computation of the Pre-Need Reserves of the *(specify whether education plan, life plan or pension plan)* of *(name of Pre-Need corporation)* as of *(date of computation)*.

I have relied on data submitted by *(Name and Position of Responsible Person)* and have conducted the tests necessary to satisfy myself on the reasonableness and integrity of such data.

I hereby state that:

1. The assumptions used in this computation are based on item 12 of SEC Pre-Need Rule 31, as amended, and may not be adequate to pay for all the contractual benefits of the Pre-Need Company;
2. The Actuarial Reserve Liability (ARL), computed in accordance with the Actuarial Society of the Philippines’ “Guidelines to Actuarial Practice in Pre-Need”, is the actuarially accepted measure of liabilities of a pre-need company and that the PNR may be significantly different from the ARL;
3. All insurance benefits included in the plan agreement are adequately covered under a separate insurance contract. Reserves for the Pre-Need benefits and guarantees, on the other hand, are valued in accordance with the assumptions based on item 1 above;
4. The pre-need reserves for *(specify type of plan)* aggregating to P \_\_\_\_\_ in this computation are in accordance with the above formulation and assumptions;
5. The amount of insurance premium reserves for the cost of purchasing the insurance benefits after the payment period is P \_\_\_\_\_
6. The dividends amounting to P \_\_\_\_\_ of the participating pre-need plans were computed based \_\_\_\_\_.
7. The Trust Fund Equity based on the Trustee’s Certification has a net balance of P \_\_\_\_\_ as of *(date of computation)*.

This document forms part of the Pre-Need Reserves Computation Report.

Lastly, I am an (Associate / Affiliate) of the Actuarial Society of the Philippines (ASP) and I recommend that a Fellow of the ASP be asked to determine the Actuarial Reserve Liability.

Name & Signature of Associate / Affiliate  
SEC Accreditation Number \_\_\_\_\_  
Issued in \_\_\_\_\_ on \_\_\_\_\_

**ACTUARIAL VALUATION CERTIFICATE**

I have undertaken the actuarial valuation of the (specify whether education plan, life plan or pension plan) of (Name of Pre-Need Corporation) as of (date of valuation).

I have relied on data submitted by (Name and Position of Responsible Person) and have conducted the tests necessary to satisfy myself on the reasonableness and integrity of such data.

I hereby certify that:

7. The actuarial assumptions and formulations used in this actuarial valuation are in accordance with generally accepted actuarial principles and practices;
8. The reserves for all benefits and guarantees therein are valued in accordance with the assumptions, and all insurance benefits included in the plan agreement are adequately covered under a separate insurance contract;
9. The Actuarial Reserves for (specify type of plan) aggregating to P \_\_\_\_\_ in this actuarial valuation are in accordance with the above actuarial formulations and assumptions;
10. The amount of insurance premium reserves for the cost of purchasing the insurance benefits after the payment period is P\_\_\_\_\_.
11. The dividends amounting to P \_\_\_\_\_ of the participating pre-need plans were computed based \_\_\_\_\_; and,
12. I have also computed the Pre-Need Reserves amounting to P \_\_\_\_\_ in accordance with the guidelines in item 12 of SEC Pre-Need Rule 31, as amended. The difference between the PNR and the Actuarial Reserves as computed in the foregoing is (indicate if an excess or a deficiency) of P\_\_\_\_\_, and (if the difference is a deficiency) is booked by the corporation under "Other Reserves".

or

I have also computed the Pre-Need Reserves amounting to P\_\_\_\_\_ in accordance with the guidelines in item 12 of SEC Pre-Need Rule 31, as amended. The difference between the PNR and the Actuarial Reserves as computed in the foregoing is (indicate if an excess or a deficiency) is P\_\_\_\_\_, and (if the difference is a deficiency) should be reflected as an additional liability of the company.

I further certify that I compared the amount of the Actuarial Reserves as of (date of valuation) with the amount of the Trust Fund Equity and the result of the comparison reflects the following information:

The Trust Fund Equity based on the Trustee's Certification has a net asset balance of P\_\_\_\_\_ as of (date of valuation).

Case A. If the Trust Fund Equity is sufficient:

The Trust Fund Equity, excluding the dividends of participating pre-need plan products, (if applicable) is sufficient to cover the Actuarial Reserves.

**OR**

Case B. If the Trust Fund Equity is deficient:

The Trust Fund Equity, excluding the dividends of participating pre-need plan products, (if applicable) is deficient to cover the Actuarial Reserves and the deficiency amounting to P \_\_\_\_\_ should be in the Trust Fund within the time limit prescribed by SEC regulations.

Attached is the Actuarial Valuation Report, prepared in accordance with the Actuarial Society of the Philippines' "Guidelines to Actuarial Practice in Pre-Need".

Name & Signature of Pre-Need Actuary  
SEC Accreditation Number \_\_\_\_\_  
Issued in \_\_\_\_\_ on \_\_\_\_\_

## STANDARDS OF ACTUARIAL PRACTICE IN PRE-NEED (Adopted November 18, 2005)

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These Guidelines replaced the following documents:

- (i) Guidelines to Actuarial Practice in Pre-Need (July 1994)
  - (ii) Addendum to Sec. VII of the Guidelines (Feb. 1999)
  - (iii) Minimum Standards of Valuation of Pre-Need Plans (Nov. 1993, amended Aug. 1997)
  - (iv) Guidelines to Actuarial Practice in Pre-Need Plans (October 2000)
- 

### I. DESCRIPTION OF PRE-NEED PLANS AND DEFINITION OF TERMS

1. Pre-Need plans fall under either of two general classifications: Contingent Benefit Plans or Scheduled Benefit Plans.
  - a. **Contingent Benefit Plans** refer to plans where the payment of benefits is dependent upon the occurrence of an unexpected event, like death of the planholder, or a decision of the planholder to utilize the benefits under the plan for another person of his choice upon occurrence of the contingent event of death to that person. Examples are funeral plans, memorial plans, mortuary plans, interment plans, cremation plans, etc.
  - b. **Scheduled Benefit Plans** refer to plans where the date of entitlement to the benefit is defined at inception. These include pension plans, education plans, travel plans and other similar plans.
2. Pre-need plans can either be Fixed Value Plans or Actual Cost Plans.
  - a. **Fixed Value or Fixed Benefit Plans** are plans wherein the amount of the benefit is fixed at the time the plan is purchased.
  - b. **Actual Cost or Traditional Plans** are plans wherein the amount of the benefit is the actual cost of such benefit or service at the time of payment of the benefit.
3. **Consideration** is the price paid for the purchase of a pre-need plan. Considerations under a plan are paid either in one lump sum or in installment payments.
  - a. **Net Consideration** is the portion of the Gross Consideration payable by the planholder for the principal benefits stipulated in the pre-need contract.

Net Consideration may sometimes be the Contribution to Reserve when determining Actuarial Reserves.
  - b. **Gross Consideration** is the total of Net Consideration plus loadings for administrative and other expenses, as well as profit margins.
  - c. **Expenses** include, but are not necessarily limited to, all expenses for plan acquisition, marketing, administration, and taxes.
4. **In-force Plans** are plans for which the pre-need company has liabilities for promised or contracted benefits, or for the delivery of services. Included as in-force plans are:
  - a. Plans wherein considerations are still payable and which payments are either up-to-date or

- within the grace period provided for in the contract;
- b. Plans wherein all considerations have been fully paid but benefits are not yet being paid or services are not yet being utilized;
  - c. Plans wherein considerations have been fully paid and benefits are already being paid or services are being utilized, but have not been completely paid or delivered.
5. **Grace Period** is the period provided for in the pre-need contract within which consideration installments currently due may be paid without penalty and during which period the contract remains in force.
  6. **Lapsed Plans** are plans which are delinquent beyond the grace period in the payment of consideration installments due but within the period allowed for reinstatement to active payment status as defined in the contract.
  7. **Forfeited or Cancelled Plans** are plans which have remained delinquent in the payment of consideration installments due beyond the period allowed for reinstatement as defined in the contract.
  8. **Paid-up Plans** are plans wherein considerations have been fully paid.
  9. **Fully Availed Plans** are plans wherein the benefits or services stipulated in the contract have been fully paid or delivered.
  10. **Utilization Rate** is the ratio of the number or amount of plans that avail of the benefits or services within a given period, to the number or amount of plans in force at the beginning of the same period.
  11. **Lapsation Rate** is the ratio of the number or amount of plans that lapse within a period, to the number or amount of plans that are in force at the beginning of the same period.
  12. **Forfeiture or Cancellation Rate** is the ratio of the number or amount of plans that are cancelled at the expiration of the reinstatement period, to the number or amount of lapsed plans that have not expired at the beginning of the same period.
  13. **Reinstatement Rate** is the ratio of the number or amount of lapsed plans that are reinstated within a given period, to the number or amount of lapsed plans at the beginning of the same period.
  14. **Surrender** refers to the termination of the contract at the option of the planholder in exchange for its termination value at date of surrender.
  15. **Surrender Rate** is the ratio of the number or amount of plans that are surrendered within a period, to the number or amount of plans that are in force at the beginning of the same period.
  16. **Termination Value** is the amount that the planholder is entitled to be paid upon surrender of the plan prior to payment in full of the benefits under the contract.
  17. **Transferability** is a provision in the pre-need contract which allows the planholder to transfer his rights to the benefits and services defined in the contract to another person.

For Actual Cost Plans where the benefit is transferable or assignable, there is the risk of paying higher benefits than expected, unless the contract specifies the conditions otherwise for it to be transferable or assignable.

## **II. DETERMINATION OF GROSS CONSIDERATIONS OF PRE-NEED PLANS**

1. Gross considerations should be determined to include, but not necessarily limited to, all costs of all benefits stipulated in the contract, expenses, taxes, and profit and other margins.
2. At inception, the present value of gross considerations should be equal to the present value of all benefits stipulated in the contract, expenses, taxes, and profit and other margins.
3. Assumptions used for determining gross considerations should be based on the projected but prudently attainable company experience as justified by actual past company experience, if any, that may be adjusted for expected future trends which are realistic and applicable to the situation of the company.

### **1. DETERMINATION OF ACTUARIAL RESERVES**

1. The Actuary must determine the actuarial reserves for all benefits stipulated in the contract. The benefits may be provided by the pre-need company directly, or indirectly by transferring the responsibility for the delivery of such benefits to a third party.
2. The actuarial reserves for benefits shall be determined on a prospective basis.

The actuarial reserves for benefits directly provided by the pre-need company must be equal to the present value of all future benefits directly provided by the company less the present value of the future contributions to reserves for such benefits.

The actuarial reserves for benefits provided indirectly by the pre-need company should be equal to the present value of the cost of providing these benefits less the present value of the contributions to reserves to provide for these benefits.

Actuarial reserves on pre-need contracts should never be less than the corresponding termination values.

3. The period within which contributions to reserves are assumed to be made should not exceed the period within which considerations are to be paid. For paid-up plans, future contributions to reserves are zero.
4. Contribution to Reserve for a particular period should not exceed the Gross Consideration for the same particular period.
5. Assumptions used in the valuation of actuarial reserves should reflect current experience of the company with respect to those assumptions, adjusted only for expected future trends,

which are reasonable and realizable. Justification should be made for any assumptions used that do not reflect current experience.

When updating assumptions, the changes in the assumptions and the effect of such changes on the actuarial reserves should be disclosed in the actuarial valuation report.

6. Expense reserves shall, whenever deemed appropriate, be set up for expenses to be incurred on the plan after the plan is fully paid.

#### **IV. ASSUMPTIONS REGARDING INTEREST, INFLATION, EXPENSES, FORFEITURES, SURRENDERS AND OTHER CONTINGENT FACTORS**

1. Assumptions and methods must be selected and applied with integrity, informed judgment and with perspective in relation to the purpose for which the results are intended. Actuarial assumptions should be appropriate to the specific circumstances of the company. They should be based on experience or anticipated experience, which is reasonably applicable to the specific business considering the characteristics of that business and the trends which may reasonably be expected in the future.
2. The interest assumption shall be based on the yield rate or series of yield rates that are expected to be earned from investing the assets of the funds over the lifetime of the contracts involved.
  - a. The yield rate includes dividends, interests and other investment income and is net of all investment taxes and expenses.
  - b. Factors that may influence interest or yield rates include those that characterize the types of investments allowed, the company's current investment yields, cash flow patterns of the existing investments, and inflation rates. The interest assumption used for pricing should be that which at issue is sustainable over the entire term of the plan, while valuation interest assumption should be that which, at time of valuation, is justified as attainable over the remaining term of the plan.
  - c. Forecast of investment yield rates should take into account the relationship of these rates to the contract durations and contract exposures to surrenders and payments of benefits on the contracts.
3. All expenses associated with acquiring and maintaining the business must be recognized in the determination of gross considerations, as well as in the annual valuation of actuarial reserves of the company.
  - a. When testing adequacy of gross considerations, all expenses associated with acquiring and maintaining the business should be considered, including those expenses which are payable after all considerations have been paid. These should include acquisition costs such as commissions and overrides, issue costs and the like, licensing fees, registration fees, general administrative and other maintenance expenses, including expenses for cancellations and/or claims servicing, and taxes. If insurance cover is provided, the premiums payable during the entire period of cover must be included.

- b. As much as possible, when making assumptions on expenses, actual expense studies of the company should be used, modified only to reflect expected and highly probable future trends in the business; e.g. the effect on expenses of increasing volume of business and the effect of inflation on unit costs.
  - c. Prudent judgment must be exercised as to the applicability of current expense rates to future years. Expense assumptions should reflect medium or long-term trends that match the expected duration of the contracts.
4. Inflation is the economic condition associated with rising price levels. It should be emphasized that inflation in benefit cost is specific for each product. It may be different, for example, for mortuary as compared to education plans.
- a. In pre-need contracts, inflation affects both the determination of gross considerations and the cost of benefits of actual cost plans.
  - b. Inflation can affect significantly the following actuarial assumptions:
    - 1.1.1. Investment yield rates from various categories of investments
      - 1.1.2. Cost of benefit of actual cost plans
        - iii. Expenses for acquiring and maintaining and delivering the promised benefits
    - c. Rates of surrenders, lapses and utilization for fixed value plans are likely to increase, while for actual cost plans, surrenders and lapses are likely to decrease with higher rates of inflation.
    - d. The effects of inflation may be recognized in actuarial assumptions either implicitly or explicitly, except in actual cost plans where the effects of inflation must be considered explicitly.
5. Surrenders and lapses are occurrences that are entirely at the option of the planholder. Thus the effects of surrenders and lapses on all other factors must always be considered.
- a. The company's own experience should be used as a guide for making assumptions of expected rates in the future.
  - b. Factors that affect these rates include type of plan, duration, amount of consideration, amount of benefit, inflation, selling practices, and economic outlook.
  - c. Care should be taken when providing margins for deviations in these rates, and the effects of such deviations should be duly tested and provided for under different circumstances.
6. Utilization rate assumptions should consider the transferability provisions of the plan.
- a. As much as possible, the company's own experience should be used in the assumption of utilization rates.
  - b. Utilization rates for transferable benefits should include not only the contingent factors such as mortality for mortuary plans but also the option of the planholder to optimize utilization

of the benefits especially under actual cost plans, such as to postpone the use of the benefits for a later time when costs are higher.

- c. For memorial plans, the utilization rates to be used in pricing should not only be influenced by mortality rates applicable to the planholder but also by the possibility that the plan is assigned for use by another person.

## **V. DETERMINATION OF TERMINATION VALUES**

1. In the design of plans, the actuary is expected to define the amounts of the termination values, and consider the same in determining the considerations for the pre-need plan. When asked to do so, the actuary should take into account the equities of all parties – viz. the planholder and the issuer of the plan. For example, equity of the planholder can be a measure of his reasonable expectation from the plan which he may opt to terminate, while equity of the issuer can be its right to collect the costs of a premature termination of the contract.
2. Termination values should represent the equitable share of both parties in the gross considerations minus the expenses of the issuer for the premature termination. However, the termination values should not be less than the minimum values set by the regulatory body.

## **VI. STATEMENT OF ACTUARIAL OPINION**

1. The Statements of Actuarial Opinion should be based on sound actuarial principles adopting concepts in actuarial literature and utilizing accepted standards of actuarial practice and actuarial guidelines applicable to pre-need contracts. The Statements should clearly indicate the bases for such opinion. When making such opinion, the actuary must conduct sufficient tests and calculations on the data reflecting company experience for the specific contract types to satisfy himself of the appropriateness of his opinion.
2. A Statement of Opinion shall include:
  - a. The actuary's name and his relationship with the company;
  - b. The subject(s) on which the opinion is being made, describing the scope of the actuary's work;
  - c. A statement expressing the actuary's opinion on the subject and the appropriateness of assumptions used; and,
  - d. A disclosure of any information which, if not disclosed, might reasonably be expected to lead to an incomplete understanding or misinterpretation of the opinion.
3. The Statement of Opinion on pricing shall include, in addition to Paragraph 2 above, an opinion on the adequacy of the considerations and benefit cash flows arising from the contracts. The actuary is expected to base his opinion on projections of considerations and benefit cash flows under various assumptions of future interest and inflation rates that could affect the contractual obligations under the plans, and to consider the characteristics of the contracts that are subject of the opinion.
4. In expressing an opinion as to the adequacy of the pricing of a pre-need product, the actuary must see to it that the assumptions used in such pricing have been adequately and effectively communicated to the company, including the possible effects of adverse deviations from these assumptions.

5. The Statement of Opinion on actuarial reserves shall include, in addition to Paragraph 2 above:
  - a. A statement regarding the data or records which the actuary used in his valuation. If the actuary has relied on records supplied by an officer of the company or the independent auditor, he should make a statement to that effect, after having conducted a review and run the necessary tests;
  - b. A statement of opinion on the assumptions used in calculating the actuarial reserves including, but not limited to, assumptions on interest or yield rates, rates of inflation, expenses, utilization rates and other rates of decrement. An actuary may use assumptions given by other experts only if he has tested such assumptions and is satisfied that the assumptions are appropriate.
  - c. Actuarial formulations and methods used in calculating the actuarial reserves. If there are changes in actuarial formulations, methods and assumptions from those previously employed, the changes should be stated and the effect of such changes indicated in the Statement.
  - d. A statement as to whether the actuarial reserves and other actuarial items:
    - i. Are computed in accordance with commonly accepted actuarial principles, methods and standards, that are consistently applied;
    - ii. Are based on actuarial assumptions which produce reserves at least as great as those called for in any contract provision as to reserve basis and method, and are in accordance with all other contract provisions;
    - iii. Meet the requirements of the rules and regulations of the regulator as they pertain to actuarial matters;
    - iv. Include sufficient provisions for all actuarial reserves and related items which ought to be established, as well as all current and future obligations of the company guaranteed under the terms of its contracts, including items which are dependent upon the occurrence of events in the future, such as, for example, reserves for optional modes of settlement at maturity date of the plan;
    - v. Are computed on the basis of assumptions consistent with those used in computing the corresponding items in the preceding year-end, and if not, the change should be stated, and the reason for such change given, including the quantification of the effect of such changes in assumptions.
6. All pertinent and material information that will minimize the possibility of misinterpretation or misunderstanding by those relying on the actuary's work should be disclosed.
7. The assets of the Trust Fund and their yields are matters to consider in making assumptions for interest rates used in actuarial reserve valuation. The actuary shall make a statement about the effects of deviations of actual trust fund earnings from the assumptions that he used in the valuation of actuarial reserves. He should make a

general comment on the quality and/or composition of the assets, particularly on how such assets can adequately or inadequately cover the benefits under the plans as they become due and payable.

8. An actuary must be prepared to justify the use of any procedures that depart materially from those set forth in these Standards and must include in any actuarial communication of the results, an appropriate statement with respect to the basis, rationale, and effect of such departures.

## **VII. STATEMENT OF ACTUARIAL OPINION ON COMPANY ASSETS INCLUDING TRUST FUNDS**

1. Where there is a requirement to set up a separate Trust Fund for the liabilities of the pre-need company to its planholders, the Actuary shall compare the amount in the Trust Fund with the computed actuarial reserves. The actuary shall make a statement of comparison indicating the amount by which the Trust Fund is greater or less than the actuarial reserves computed.
2. The actuary shall make specific recommendations that the periodic deposits to the Trust Fund for each plan shall not be less than the contributions to reserves defined in Section III, par. 2.
3. With respect to financial statements, when the Trust Fund is included as asset in the Balance Sheet, the actuary should see to it that the actuarial reserve is also reflected as a liability in the Balance Sheet. Otherwise, the actuary must make the necessary recommendation to have it included.

## **VIII. MINIMUM CONTENTS OF AN ACTUARIAL REPORT ON PRICING**

1. A Statement of Opinion on pricing.
2. The description of the benefits under the plan, and the period for which considerations are payable.
3. The actuarial assumptions used in the pricing, which shall include, but not necessarily be limited to, interest or yield rates, inflation rates, surrender rates, lapse rates, utilization rates, mortality or morbidity rates, expenses and profit margins. The bases for the actuarial reserves that affected the pricing shall also be indicated.
4. Sample viability analysis showing results each year for all years from inception date to the end of the benefit payment period of the plan.

## **IX. MINIMUM CONTENTS OF A VALUATION REPORT**

1. Statement of Opinion on the actuarial reserves.
2. A schedule showing the following information for the current year:
  - a. Number and aggregate amount of obligation in the file of in-force plans;
  - b. Actuarial reserves and aggregate amount of the paying plans, including those within the grace period;

- c. Actuarial reserves and aggregate amount of paid-up plans that are already utilizing the benefits and that are not yet utilizing the benefits;
  - d. Actuarial reserves and aggregate amount of lapsed plans within the allowable period of reinstatement;
  - e. Assets of the Trust Fund both at cost of acquisition and at market value as of valuation date as certified by the trustees.
3. A schedule showing the experience of the company for the last five years on the net investment rate of return on the Trust Fund assets.

## **X. RELATIONSHIP WITH AUDITOR**

1. When the actuary's work relates to financial statements subject to audit, the actuary should disclose to the auditor the actuarial assumptions and methods used. a
2. An actuary who is responsible for any part of the financial statements, which are subject to audit must fully disclose to the auditor his relationship with the company. Likewise, an actuarial opinion that is made part of the published financial statements should state clearly the relationship between the company and the actuary.
3. Should the auditor be unable to form an opinion on the company financial statements on the basis of the information furnished by the company actuary, and the auditor consults with another actuary, the company actuary should make all related materials available for the other actuary's review, and be available for further explanation should this be required.
4. The actuary should disclose his relationship with the auditor, if any.

## **GUIDELINES TO ACTUARIAL PRACTICE IN PRE-NEED**

**(Adopted October, 2000)**

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These Guidelines replaced the following documents:

- (i) Guidelines to Actuarial Practice in Pre-Need (July 1994)
  - (ii) Addendum to Sec. VII of the Guidelines (Feb. 1999)
  - (iii) Minimum Standards of Valuation of Pre-Need Plans (Nov. 1993, amended Aug. 1997)
- 

### **I. DESCRIPTION OF PRE-NEED PLANS AND DEFINITION OF TERMS**

1. Pre-need plans fall under two general classifications: contingent benefit plans and scheduled benefit plans.
  - (a) **Contingent benefit** plans refer to such plans where availment of benefits is contingent upon the occurrence of a contingency, like the death of, or the decision of the planholder to utilize the benefit under his plan for himself or another person of his choice. Examples of these are funeral plans, memorial plans, mortuary plans, interment plans, cremation plans, etc..
  - (b) **Scheduled benefit plans** refer to plans where the date of availment of the benefit can be set at inception. These include pension plans, educational plans, travel plans and other similar plans.
2. Pre-need plans can either be fixed value plans or actual cost plans
  - (a) **Fixed value plans** are plans where the amount of the benefit is fixed at the time the plan is purchased.
  - (b) **Actual cost or traditional plans** are plans where the amount of the benefit is dependent on the cost of such benefit or service at the time of availment.
3. Consideration is the price paid for the purchase of a pre-need plan. Considerations under a plan are paid either in lump sum (or single payment), or in multiple sums (or installment payments).
  - (a) **Net consideration** is the consideration for the benefit costs taking into account interest rates and applicable contingency factors.
  - (b) **Gross consideration** is the net consideration plus loadings for expenses and profit.
  - (c) **Expenses** shall include all expenses for marketing, administration and taxes.
4. **Benefit costs** are costs of actual benefit payments including costs of ancillary benefits.
5. **Ancillary benefits** are benefits promised by the pre-need company other than the main benefit.

6. **In-force plans** are plans for which the pre-need company continues to have liabilities for delivery of benefits or services. These include:
  - i. plans whose considerations are still payable
  - ii. paid-up plans which are not yet paying out benefits
  - iii. paid-up plans which are paying out benefits but have not delivered the full benefits
7. **Lapsed plans** are plans which are delinquent in payment and the delinquency extends beyond the grace period.
8. **Cancelled plans** are plans which have remained delinquent for more than the allowed period of reinstatement counted from the start of delinquency.
9. **Paid-up plans** are plans where the considerations have been fully paid.
10. **Fully-availed plans** are plans where guaranteed services or benefits have been fully delivered.
11. **Availment rate** is the ratio of the plans in force at the beginning of the period availing of the main benefit within the given period to the in-force plans at the beginning of that same period. It may be based on the number of plans or amount of benefit. It is used in the formulations for discounting contingent benefit plans.
12. **Withdrawal rate** is the ratio of the number or amount of plans with expected considerations within a given period that discontinue payment of such considerations during the period to the number or amount of such plans with expected considerations at the beginning of the period.

For paid-up plans, it is the ratio of the number or amount of unavailed or partially availed plans at the beginning of a period which are terminated at the option of the planholder before the end of the period, to the number or amount of such plans at the beginning of the period.

Note: A withdrawal results in the termination of the contract and may arise from a lapse or surrender. The withdrawal rate is the sum total of the lapse rate and the surrender rate.
13. **Surrender** refers to the termination of a contract at the option of the planholder in exchange for its termination value at surrender date.
14. **Termination value** is the amount the planholder should be paid upon lapse or surrender prior to availment of full benefits.
15. **Transferability** refers to the provision in the pre-need contract which allows the planholder to transfer his rights to the benefits to another.

## II. FORMULATIONS FOR PRESENT AND ACCUMULATED VALUES

1. Actuarial formulations for calculating present values or accumulated values of benefits or considerations should be based on the fundamental relationships between benefits and expenses, and considerations. At any time formulations are done, the rate or factors used should take into account the updated values for such factors or rates.
2. At the inception of contract, the present value of gross considerations should at least equal the present value of expected benefits and expenses. Assumptions used to establish this relationship should be reasonably applicable and attainable.

## III. ASSUMPTIONS REGARDING INTEREST, INFLATION, EXPENSES, WITHDRAWAL AND OTHER CONTINGENCIES

1. Assumptions and methods must be selected and applied with integrity, informed judgment and perspective in relation to the purpose for which the results are intended. Actuarial assumptions should be appropriate to the specific circumstances of the company. They should be based on experience or anticipated experience which is reasonably applicable to the specific business, considering the characteristics of that business and the trends which may reasonably be expected in the future.
2. The interest assumption is the series of yield rates assumed on the funds to be invested over the lifetime of the contracts involved.
  - (a) The yield rate includes dividends, interests and rental income and is net of all investment taxes and expenses.

Any other investment income or losses e.g. capital gain/losses may be included provided there is sufficient justification.
  - (b) Factors which may influence interest rate assumptions include the types of allowable investments, cash flow patterns, company investment policies, current trends in company's investment yields, trends in other companies' investment yield if the company's own experience is limited, inflation trends and government policies. The interest assumption used for pricing should be that which is sustainable over the life of the plan, while valuation interest assumption should be that which, at the time of valuation, is justifiably attainable.
  - (c) Forecast of investment yield rates should take into account the relation of these rates to the contract durations and contract exposures to withdrawals and/or availments.
  - (d) It is recognized that the probability of deviation of actual from assumed interest rate on funds invested in the years immediately after issue is less than those on funds invested many years after issue. For this reason, the provision for adverse deviation should generally be greater for later durations than for earlier durations.

3. All expenses associated with acquiring and maintaining the business must be recognized in the determination of gross considerations, as well as in the annual valuation of liabilities of the company.
  - (a) When testing adequacy of gross considerations, all expenses associated with acquiring and maintaining the business should be considered, including those expenses which are payable after all considerations are paid. These should include acquisition costs such as commissions and overrides, issue costs and the like, licensing fees, registration fees, general administrative and other maintenance expenses, including expenses for termination and/or claims servicing, and taxes. If insurance coverages are provided, whether during or after the period for which considerations are payable, premiums for such coverages should be considered.
  - (b) As much as possible, actual expense studies of the company concerned should significantly affect the expense assumption, modified only to reflect expected highly probable trends in the business; e.g., effect on expenses of increased volume of business and the effect of inflation on unit costs.
  - (c) Judgment must be exercised as to the applicability of current expense rates to future years. Expense assumptions should reflect medium or long term trends relative to the expected duration of the contracts. The underlying assumption for future inflation should be consistent with that considered in selecting the interest assumption.
4. Inflation is the economic condition associated with rising price levels. It should be emphasized that inflation in benefit cost is specific for each product; for instance, it might be 7 ½ % for mortuary plans, but 22% for educational plans.
  - (a) In pre-need contracts, inflation affects both the determination of gross considerations and the cost of benefits of actual cost plans.
  - (b) Inflation affects directly the following actuarial assumptions:
    - i. Investment yield rates – The investment yield rate from various categories of investments may be affected by inflation in different directions and/or degrees.
    - ii. Cost of benefit of actual cost plans – a higher rate of inflation increases the cost of the benefits of actual cost plans.
    - iii. Expenses – higher inflation rates will increase the expenses of acquiring and maintaining the business and delivering the promised benefits.
  - (c) The actuarial assumptions which may be indirectly affected by inflation include rates of withdrawals, earlier availments, etc.
  - (d) The effects of inflation may be recognized in actuarial assumptions either implicitly or explicitly, except for actual cost plans where the effects of inflation must be considered explicitly.

- (e) It is recognized that actuaries may have differing opinions as to the impact of a given expected rate of inflation upon each of the actuarial assumptions.
5. Withdrawal rate. It should be noted that the withdrawal of a planholder is entirely at the option of the planholder. Thus, the effect of the withdrawal rate on all other factors must always be taken into account.
- (a) The company's own experience should be used as a guide to the expected withdrawal rates in the future.
  - (b) Factors to be considered in the determination of withdrawal rates include type of plan, duration, amount of consideration, amount of benefit, inflation, marketing techniques, and economic outlook.
  - (c) Care should be taken when providing margins for deviations in these rates and the effects of such deviations should be duly tested and provided for under different circumstances.
6. Availment rate assumptions should consider transferability of the plan
- (a) As much as possible, the company's own experience should be used in the assumption for availment rates.
  - (b) Availment rates for transferable benefits should include not only the rate of the contingency but also the rate at which the plan is availed of due to the transfer.
  - (c) For memorial plans, the availment rate to be used in pricing should be graduated to equal one (1) not later than the end of the 20<sup>th</sup> year. The graduation of the availment rates is left to the discretion of the actuary.

#### **IV. DETERMINATION OF ACTUARIAL RESERVE LIABILITIES**

1. Under a given set of assumptions at inception, the prospective reserve liability is equal to the retrospective reserve liability for all durations. At some later time, changes arising from the combined effects of updated assumptions may change this relationship.
2. The actuarial reserve liability must at all times be determined on a prospective basis and is equal to the excess of the present value of all future benefits and benefit costs over the present value of the contributions to reserves. Computations shall be done on an individual basis; otherwise, the method used should be fully disclosed. All assumptions used in the valuation should be updated to reflect the most likely trends as indicated in Section III hereof.
3. The contributions to reserves indicated in Paragraph 2 of this Section are amounts such that at inception, the present value of these contributions is equal to the present value of the benefits and benefit costs, where the nature of the benefits (whether fixed value or actual cost) is taken into account.

4. The period within which contribution to reserves is assumed to be made should not exceed the period for which considerations are to be paid. For paid-up plans, contributions to reserves is zero.
5. Reserves on contracts should never be less than their corresponding termination values.
6. Reserves shall be maintained on plans which may not be currently in-force, but which are in their reinstatable period.

## **V. DETERMINATION OF TERMINATION VALUES**

1. In the determination of termination values for pre-need plans, the equity of the planholder must be taken into account without prejudice to the right of the plan issuer to collect what is due it for the discontinuance of the contract, at the option of the planholder, prior to the contracted time of delivery of the benefits.
2. Termination values represent the equitable share of the planholder in the gross considerations he has paid to the issuer, as well as the expenses already incurred by the issuer in the acquisition and maintenance of the contract prior to termination. Although the SEC rules and regulations require minimum termination value rates expressed as percentages of the gross considerations, the actuary shall consider such rates as minimum only and adopt higher rates should these be justified by reasons of equity.

## **VI. RESPONSIBILITIES OF THE ACTUARY WITH RESPECT TO TRUST FUNDS**

1. With respect to trust funds, the actuary shall compare the amount of reserves determined after an actuarial valuation, to the amount of the trust fund. The actuary shall make a statement of comparison following the minimum requirements of the Valuation Certification Form issued by the regulator.
2. The actuary shall make specific recommendations that the rates of contributions to the trust fund for each plan shall not be less than the contributions to reserves as defined in Section IV – Determination of Actuarial Reserves Liabilities. Furthermore, the rates of contributions shall not be less than the minimum rates of deposits required in the SEC rules and regulations.
3. With respect to financial statements, the actuary shall make the necessary statement of opinion that the actuarial reserves must be reflected as liabilities in the Balance Sheet.

## **VII. STATEMENT OF ACTUARIAL OPINION FOR PRE-NEED COMPANY**

1. The Statement of Opinion should be based upon “commonly accepted actuarial standards” and “sound actuarial principles” which arise from using and adopting concepts in actuarial literature. It should clearly indicate the bases for such opinion. The actuary’s judgment in developing standards for the actuarial tests and calculations must take into account the specific contract characteristics.

2. In certifying to the adequacy of the pricing of a pre-need product, the actuary must see to it that the assumptions used in such pricing have been adequately and effectively communicated to the company, including the possible effects of adverse deviations from these assumptions.
3. In certifying to the actuarial reserve liabilities of a pre-need company, the actuary shall consider the aggregate reserve for the pre-need contracts, as well as all liabilities arising from benefits the delivery of which might have been contracted out by the pre-need company. Care must be taken to adequately disclose all pertinent and material information to minimize the possibility of misinterpretation or misunderstanding by those relying on the actuary's work.
4. The Statement of Opinion shall include:
  - (a) the actuary's name and his relationship with the company
  - (b) the subject/s on which the opinion is being made, describing the scope of the actuary's work
  - (c) a statement expressing the actuary's opinion on the subject and the appropriateness of the assumptions used
  - (d) A disclosure of any information which, if not disclosed, might reasonably be expected to lead to an incomplete understanding of the opinion.
5. The Statement of Opinion on pricing shall include, in addition to Paragraph 4, above: an opinion on the adequacy of the considerations and benefit cash flows arising from the contracts. Projections of considerations and benefit cash flows under various assumptions as to future interest rates considering the contractual obligations and characteristics of the company's contracts should be made and considered in making an opinion.
6. The Statement of Opinion on actuarial reserve liabilities shall include, in addition to Paragraph 4, above:
  - (a) A statement regarding the data or records upon which the actuary has based his valuation. If the actuary has relied on records supplied by an officer of the company or the independent auditor, he/she should make a statement to that effect, after having conducted a review and the necessary tests.
  - (b) Actuarial assumptions used in calculating the actuarial liabilities, including but not limited to assumptions on interest or discount rates, rates of inflation, expenses, availment rates, and other rates of decrement.
  - (c) Actuarial methods used in calculating the actuarial liabilities; if there are changes in actuarial methods and assumptions from those previously employed, the change should be stated in the statement.
  - (d) A statement as to whether the reserves and other actuarial items
    - i. are computed in accordance with commonly accepted actuarial standards consistently applied, and are fairly stated in accordance with sound actuarial principles;

- ii. are based on actuarial assumptions which produce reserves at least as great as those called for in any contract provision as to reserve basis and method, and are in accordance with all other contract provisions;
- iii. meet the requirements of the rules and regulations of the regulator as they pertain to actuarial matters;
- iv. include sufficient provisions for all actuarial reserves and related items which ought to be established, as well as all unmatured obligations of the company guaranteed under the terms of its contracts, including items that are computed by means of a long-term discontinuing of future payments, which are dependent upon the occurrence of events in the future, such as for example, reserves for optional modes of settlement at maturity;
- v. are computed on the basis of assumptions consistent with those used in computing the corresponding items in the preceding yearend; and if not, the change should be mentioned, and the reason for such change given;

Attached is a sample VALUATION CERTIFICATION, which is a revised version of EXHIBIT E OF SEC-BED MEMO CIRCULAR NO. 06, Revised Series of 1994.

This sample certification presents the minimum basic information which should appear in the certification. The actuary should also include all other information relevant to the matter being certified.

7. Although the valuation bases of invested assets and their yield are matters to be considered in reserve valuation assumptions, the actuary is not expected to express an opinion with regard to the general assets of the company. The regulations spell out the valuation bases for assets in considerable detail, or refer to common practices of financial institutions which are acceptable to the regulator. The actuary can rely on the valuation of assets in accordance with those procedures, and the resulting yield, in determining the valuation interest assumptions. In any case the assumed investment return should be consistent and compatible with the investment results and the quality of the assets of the trust fund.
8. An actuary must be prepared to justify the use of any procedures that depart materially from those set forth in these Guidelines and must include in any actuarial communication disclosing the results of the procedures, an appropriate statement with respect to the nature, rationale, and effect of such departures.

## **VIII. MINIMUM CONTENTS OF AN ACTUARIAL REPORT FOR PRICING**

1. Statement of Opinion
2. The contract provisions on the benefits promised by the plan and the period for which the considerations are payable;

3. The actuarial assumptions used in the pricing which shall include, whenever applicable, interest/discount rates, inflation rates, withdrawal rates, availment rates, mortality or morbidity rates, expenses, and profit targets;
4. Sample viability analysis showing results each year for all years from inception to the end of the benefit payment period of the plan.

#### **IX. MINIMUM CONTENTS OF A VALUATION REPORT**

1. Statement of Opinion (See Section VII)
2. A schedule showing the following information, for the current and prior years:
  - (a) number and aggregate face value of in-force file
  - (b) reserves and aggregate face value of paying plans
  - (c) reserves and aggregate face value of paid-up plans (availing/not yet availing)
  - (d) reserves and aggregate face value of lapsed plans w/in its reinstatable period.
  - (e) reserves for insurance premium that are chargeable to the trust fund beyond the premium-paying period.
  - (f) assets of the trust fund both at cost and at market value
3. A schedule showing the experience of the company for the last five years on:
  - (a) the net investment rate of return on the trust fund assets, and
  - (b) the rate of increase/decrease in benefit payments.

#### **X. RELATIONSHIP WITH AUDITOR**

1. When the actuary's work relates to financial statements subject to audit, the actuary should disclose to the auditor the actuarial assumptions and methods used. If approximations are used, the results should not materially differ from results using more precise methods.
2. An actuary who is responsible for any part of the financial statements which are subject to audit must fully disclose to the auditor his relationship with the company. Likewise, an actuarial opinion that is made part of the published financial statements should state clearly the relationship between the company and the actuary.
3. Should the auditor be unable to form an opinion on the company financial statements on the basis of the information furnished by the company actuary, and the auditor consults with another actuary, the company actuary should make all related materials available for the other actuary's review, and be available for further explanation should this be required.
4. The actuary should disclose his relationship with the auditor, if any.

## VALUATION CERTIFICATION

Please be informed that I have undertaken the actuarial valuation of the pre-need plans of \_\_\_\_\_ as of \_\_\_\_\_. I have relied on data submitted by \_\_\_\_\_, and have conducted tests necessary to satisfy myself as to the reasonableness and integrity of such data.\*

The actuarial assumptions used in this actuarial valuation are in my opinion, reasonable and appropriate for the plans included in this valuation.

The actuarial reserve liabilities for all benefits and guarantees therein are valued in accordance with the assumptions, and all insurance benefits included in the plan agreement are adequately covered under a separate insurance contract.

I hereby certify that the actuarial formulations used in this actuarial valuation are in accordance with generally accepted actuarial principles and practices, and also with the existing laws, pertinent rules and regulations of the SEC as they pertain to actuarial matters. The reserve liabilities aggregating to \_\_\_\_\_ in this actuarial valuation are in accordance with the above actuarial formulations and assumptions.

Based on the Trustees' Certifications, the Trust Fund Equity has a net balance of \_\_\_\_\_ as of \_\_\_\_\_.

Case A: If Trust Fund is sufficient:

The Trust Fund equity is sufficient to cover the actuarial reserve liabilities.

Case B: if Trust Fund is deficient:

The deficiency from the actuarially valued reserve liabilities amounting to \_\_\_\_\_ should be in the Trust Fund within the time limit prescribed by the SEC regulations.

\* Any missing or unreported data/information as discovered by the Valuation Actuary and its pertinent financial impact shall be disclosed by the Valuation Actuary and included in this Certification.

## **PRACTICE GUIDE ON REPORTING UNDER PHILIPPINE ACCOUNTING STANDARD NO. 19 (PAS 19) (Effective March 4, 2008)**

### **Background**

The Accounting Standards Council has prescribed the use of Philippine Accounting Standard No. 19 in accounting for the costs of providing retirement benefits for employees of an enterprise. Much of required information on the accounting for defined benefit plans will have to be supplied by actuaries.

### **Purpose**

This Practice Guide is intended to provide valuation and reporting guidelines to practitioners rendering actuarial valuation reports under PAS 19. By doing so, it aims establishing a common understanding by actuaries of PAS 19 requirements. This Guide should complement the ASP's Standards of Actuarial Practice on the Valuation of Retirement Plans rather than replace it.

### **Valuation method**

PAS 19 specifically requires the use of the Projected Unit Credit Method in the valuation of long-term and post-employment defined benefits. Such imposition, however, should not constrain the actuary in choosing other methods for use in funding valuations. It is quite possible, therefore, that the actuary will perform separate valuations for accounting and funding involving a single defined benefit plan.

### **Ancillary Benefits**

Local defined benefit retirement plans often contain benefits for other modes of employee separation such as resignation, death and disability. If these benefits can be classified as defined benefits also, they should be treated as post-employment benefits and valued using the Projected Unit Credit Method also.

Sometimes, a defined benefit retirement plan will contain provisions for involuntary separation (e.g. retrenchment or redundancy). Such benefits should generally be considered as termination benefits rather than post-employment benefits if it is the employer's action which gives rise to the liability rather than the employee's service. One way to test this is the certainty of payment. If the benefit is certain to be paid and only the timing is uncertain, then it should be considered as a post-employment benefit. However, if the benefit is not certain to be made, then it should be considered as a termination benefit.

Termination benefits are reported as expense and liability when and only when the enterprise is demonstrably committed to terminate the employment of employees prior to normal retirement or provide termination benefits as a result of an offer made in order to encourage voluntary redundancy. While such benefits may be reported as part of the plan provisions, termination benefits should not be included in the valuation and this fact must be clearly disclosed in the valuation report. Please note that the occurrence of terminations within the year may or may not cause a curtailment adjustment in the postemployment benefit expense for the year.

### **Discount rate**

Paragraph 78 of PAS 19 states that: "The rate used to discount post-employment benefit obligations (both funded and unfunded) shall be determined by reference to market yields at the balance sheet date on high quality corporate bonds. In countries where there is no deep market in such bonds, the market yields (at

balance sheet date) on government bonds shall be used. The currency and term of the corporate bonds or government bonds shall be consistent with the currency and estimated term of the post-employment benefit obligations.”

Since there is no deep corporate bond market in the Philippines, PAS 19 effectively mandates the use of yields on government bonds for discounting post-employment benefit obligations. The most readily available source of such information is the Philippine Dealing & Exchange Corp. or PDEX which publishes Treasury reference rates in its website ([www.pdex.com.ph](http://www.pdex.com.ph)). Actual done rates are also available at the Bureau of Treasury website ([www.treasury.gov.ph](http://www.treasury.gov.ph)). Unfortunately, done rates are available only occasionally and even when they are, they are not given for all durations. However, if and when done rates are available, they are the preferred rates to use. In any case, the gross rate should be used and no adjustment for any tax effects should be applied in discounting a liability.

The approach that best meets the requirement of PAS 19 would be to estimate the duration of each obligation and apply the appropriate discount rate to that obligation. However, this would entail the use of several discount rates in a single plan valuation. To cut down on the effort (and expense) of performing such detailed work, it is acceptable to use a single discount rate. ( PAS 19 supports the use of single average discount rates. ) The recommended approach for such an option would be to use a weighted average discount rate where the weights are the expected benefit payments. A less precise but still acceptable approach would be to get the weighted average duration (still using expected benefit payments as weights) and use the discount rate corresponding to such average duration. Since government bond yields are quoted only for specific tenors, it may be necessary to interpolate the rates if the duration of a particular benefit payment does not coincide with the available rates.

### **Realistic Assumption-Setting**

The objective of PAS 19 is to present a fair value of both plan liabilities and assets. As such assumptions in the valuations used must be individually and collectively realistic. Demographic and financial assumptions which may materially affect the valuation must be made and included in the valuation. Conservatism may not be used as an excuse to exclude such assumptions.

### **Plan Assets**

PAS 19 requires the use of fair values in reporting plan assets. Therefore, actuaries must ensure that they work only with such values in reporting plan assets under PAS 19. Smoothened asset values which are sometimes used in funding valuations are not considered fair values. It must also be noted that PAS 19 excludes unpaid contributions and shares of stocks of the plan sponsor that are not publicly traded from the definition of plan assets.

### **Asset Ceiling**

PAS 19 limits the reporting of a defined benefit asset to the lower of (a) the amount determined under paragraph 54 and (b) the total of:

- i. i any cumulative unrecognized net actuarial losses and past service cost and
- ii. ii the present value of any economic benefits available in the form of refunds from
- iii. the plan or reductions in future contributions to the plan.

A refund is available to an entity only where it has an unconditional right to the refund:

- i. during the life of the plan, without assuming that the plan liabilities must be settled in order to obtain the refund; or
- ii. assuming the gradual settlement of plan liabilities over time until all members have left the plan; or
- iii. assuming the full settlement of plan liabilities in a single event.

An entity should measure the economic benefit available as the amount of surplus at balance sheet date that it has a right to receive as a refund, less any associated costs.

Economic benefit in the form of a reduction in future contributions must be measured as the lower of the surplus and the present value of future service costs to the entity over the shorter of the expected life of the plan and the expected life of the entity.

For more guidance in the determination and measurement of the economic benefits arising from refunds or reduction in future contributions, practitioners are encouraged to refer to IFRIC 14.

### **Reporting Requirements**

PAS 19 requires several disclosures. As a minimum, practitioners should include in their PAS 19 valuation reports the following actuarial items:

- i. present value of the defined benefit obligation (active employees/pensioners)
- ii. present value of the defined benefit obligation (terminated employees – for use in case of curtailments)
- iii. present value of the defined benefit obligation (settled portion– for use in case of settlements)
- iv. current service cost
- v. interest cost
- vi. expected return on assets
- vii. past service cost (segregated into vested and non-vested components)
- viii. actuarial gains/losses on plan assets and liabilities
- ix. experience adjustments and effects of changes in actuarial assumptions expressed either as amounts or percentages (of plan liabilities or assets as the case may be)
- x. average expected working life of employees (for use in amortizing gains/losses if corridor approach is used)
- xi. average expected term of obligation (for use when single weighted discount rate is used)
- xii. present value of economic benefit (for use in asset ceiling test)
- xiii. all actuarial assumptions used

These are in addition to the required reporting information prescribed under the ASP Standards of Actuarial Practice on the Valuation of Retirement Plans.

Practitioners are encouraged (but not required) to include all the other disclosure requirements of PAS 19 such as:

- i. amounts to be recognized in balance sheet (reconciliation of funded status)
- ii. amounts to be recognized in the income statement
- iii. amounts to be recognized in statement of realized earnings and expenses (SORIE)
- iv. movement in the net liability (asset) recognized in the balance sheet
- v. movement of the present value of obligation during the year

- vi. movement of the plan asset balance during the year
- vii. recognition of actuarial gains/losses
- viii. effects of curtailments/settlements
- ix. asset ceiling test

Practitioners reporting the above accounting information must ensure that they are knowledgeable with respect to the accounting requirements of PAS 19.

## STANDARDS OF PRACTICE FOR THE VALUATION OF RETIREMENT PLANS (Adopted November 18, 2005)

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These Guidelines replaced the following documents:

- (i) Recommendations for Valuation of Retirement Plans (November, 1991)
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### I. GENERAL

1. **Scope.** These Standards of Actuarial Practice (henceforth referred to as “Standards”) set forth guidelines for members who perform actuarial valuations of defined benefit retirement plans covering persons in the Philippines. These Standards apply to:
  - a. *Funding* of defined benefit retirement plans;
  - b. *Assignment of costs to time periods* for defined benefit retirement plans;
  - c. *Magnitude of defined benefit retirement plan obligations*, even for plans which are not funded or expensed on an actuarial basis; and,
  - d. *Comparison of actuarial present values* among alternative benefit obligations.
2. **Acknowledgement.** These Standards have been based largely on the Actuarial Standard of Practice # 4 (Measuring Pension Obligations) issued by the Actuarial Standards Board of the American Academy of Actuaries.
3. **Purpose of the Valuation.** Actuarial valuations of retirement plans are performed for a number of purposes. The valuation report must state the purpose for the valuation.
4. **Approximations.** Approximations may be resorted to in cases where it may be advisable to do so as determined by the actuary. However, the use of approximations should not, in the actuary’s judgment, materially affect the results of the valuation.
5. **Materiality.** Materiality should be determined in relation to each normal user of the valuation report. A difference is material if knowledge or ignorance of such difference would influence the judgment of the user regarding the actuarial status of the retirement plan, with due regard given to the purpose or the intended use of the calculations.
6. **Documentation.** The actuary should at all times be prepared to support the procedures he followed in the valuation process by means of adequate written records.
7. **Disclosure.** There must be adequate disclosure in a valuation report. Adequate disclosure means that all material and relevant facts concerning the actuarial valuation should be communicated to the users of the valuation report.
8. **Definitions.** Terms used in these Standards have the definitions assigned to them in Appendix I.

## II. VALUATION PROCEDURES

1. **Procedures to be followed.** In order to prepare actuarial valuations of retirement plans, the following procedures should be performed:
  - a. Select a calculation date;
  - b. Determine plan provisions applicable to the calculation;
  - c. Gather data necessary for the calculation including participant information and asset information;
  - d. Select actuarial assumptions pertinent to the determination of the actuarial present value of benefits applicable to the calculation; and,
  - e. Select a procedure to allocate costs to past and future periods. This procedure may include:
    - e.1. an actuarial cost method
    - e.2. an actuarial asset valuation method
    - e.3. an amortization period
2. **Calculation Date.** Cost calculations should be made as of a specific date, with an adjustment for interest if contributions or cost accruals are to be made at a different date.
  - a. *Information as of a Different Date.* Asset and participant information at the calculation date may be estimated on the basis of information furnished as of another date.
  - b. *Events after the Calculation Date.* The treatment of events that are subsequent to the calculation date and prior to the date of the actuarial communication should be appropriate to the purpose for which the valuation is being performed. Unless the purpose of the calculation requires the inclusion of such events, they need not be reflected until subsequent years. However, the actuary generally should disclose such events if the conclusions which would otherwise be reached would be significantly affected by such events.
3. **Plan Provisions.** All provisions of the plan adopted and effective on or before the start of the plan year should generally be taken into account in measuring benefit obligations, as should administrative practices with respect to matters not directly addressed in the plan. The treatment of prospective plan changes should be appropriate to the purpose for which the calculation is being performed. In general:
  - a. Provisions adopted on or before the calculation date and effective during the plan year should be reflected on at least a pro-rata basis.
  - b. Provisions adopted on or before the calculation date which are not effective until future years may, but need not, be reflected in current year funding or cost allocations.
  - c. Provisions adopted after the calculation date need not be reflected until the following year.
  - d. For purposes of projecting future years' funding or cost allocations, likely future changes in provisions, may, but need not, be reflected.
4. **Asset and Other Required Data.** The actuary should consider the following issues with respect to the quality of information used for calculations:
  - a. *Types of Data.* The actuary should obtain at least the following data / information to be able to perform the basic actuarial calculations:
    - a.1. Plan participant data
    - a.2. Retirement fund information
    - a.3. Retirement plan provisions and pertinent CBA provisions, company policies and Practices

a.4. Copy of the last valuation report, if available

Generally, all participants should be reflected in the actuary's calculations. Under appropriate circumstances, persons below a minimum age / service level may be excluded. Persons who are expected to become participants in the future, whether or not they are yet employed, may be reflected. Appropriate samples may be a satisfactory basis for the calculations.

- b. *Hypothetical Data.* It may be appropriate to prepare models or illustrations based on hypothetical data.
- c. *Sources of Data and Check Procedures.* The actuary will generally rely on the plan administrator, custodian of the assets of the retirement fund or some other officer of the plan sponsor for the necessary data who, in turn, may refer him to qualified third parties. The actuary should establish suitable check procedures to test the validity and verify the reasonableness of the data. If the actuary is not satisfied with the validity and reasonableness of the information, further inquiry should be made until he is so satisfied.
- d. *Accruals and Prepayments.* Accrued contributions or prepayments should be reflected in assets on a basis consistent with the purpose and the reporting period for which costs are being determined, and costs should reflect interest equivalents on those accruals or prepayments.
- e. *Insufficient Data.* The actuary should not perform an actuarial calculation if, in his judgment, the information available is substantially less than complete and cannot reasonably be approximated, i.e., there is sufficient uncertainty about the characteristics of the unknown information that would render the results of the calculations inadequate for the intended purpose.
- f. *Disclosure.* The actuarial valuation report should mention the date as of which the data was compiled, the sources of the data, and any assumptions made with respect to unavailable information. A summary of statistics regarding plan participants should also be included in the report.

5. **Actuarial Assumptions.** The actuary must consider the following issues in the use of assumptions in his valuations:

- a. *Appropriateness.* The actuarial assumptions should reflect the actuary's judgment of future events affecting the retirement program while complying with statutory and other parameters relevant to the purpose of the valuation. The actuarial assumptions should recognize the actual experience of the covered group as well as reflect expected long term trends without giving undue emphasis to recent past experience.
- b. *Interrelationships.* Actuarial assumptions should be independently reasonable. The actuary should be satisfied that the assumptions used are consistent and reasonable in the aggregate.
- c. *Selection of Assumptions and Factors.* The actuary should make an assumption about every contingency which materially affects the valuation results. A conscious decision should be made to ignore a given contingency where it is appropriate to do so. Some contingencies which the actuary should consider in making assumptions are:

- c.1. investment return
  - c.2. inflation
  - c.3. salary increases
  - c.4. government-provided benefits
  - c.5. post-retirement benefit adjustments
  - c.6. incidence of retirement
  - c.7. mortality
  - c.8. disability
  - c.9. voluntary termination
  - c.10. involuntary termination
  - c.11. administrative expenses
  - c.12. modes of benefit payment
- d. *Effect of Changes on Assumptions.* The actuary should consider that changes in plan design or external circumstances may significantly alter the level and trend of expected future experience. For example, a liberalization of early retirement benefits or external early retirement incentives may make advisable a revision in the assumed incidence of retirement.
  - e. *Plan-specific Assumptions.* In choosing actuarial assumptions, the actuary should consider not only information on general trends but specific information related to the plan. As a result of this information, the actuary may develop actuarial assumptions which differ from plan to plan or from group to group within a plan.
  - f. *Past Experience.* Past experience of the covered group is reflected in current costs through actuarial gains and losses. It may also be useful in forming a judgment about future experience. The long-range, prospective nature of benefit costs, however, dictates that the assumptions be based on expected long-term future trends.
  - g. *Disclosure.* The actuarial assumptions used should be described in the valuation report. Assumptions which in the actuary's judgment could materially affect the valuation but were not made should be disclosed. Assumptions made that do not satisfy this standard should likewise be disclosed. Finally, the report should also disclose the changes in the assumptions since the previous valuation and should indicate the effect of the changes.
6. **Actuarial Cost Methods.** The actuary should consider the following items in selecting and applying actuarial cost methods:
- a. *Allocation Process.* The allocation process inherent in an actuarial cost method employs two parameters – pro-ration basis and period. The pro-ration basis is most commonly compensation, service, or a rate (imputed or plan-derived) of benefit accrual. The period is the time interval over which cost is allocated. Allocations may be done on an individual or aggregate basis.
  - b. *Allocation Methods.* Once the pro-ration basis and period parameters have been selected, an actuarial cost method defines the manner in which the actuarial present value of benefits is allocated over the period. Two fundamentally different ways in which this allocation has historically been made give rise to what can be characterized as the class of benefit allocation actuarial cost methods and the class of cost allocation actuarial cost methods. The primary difference between the two classes is whether the actuarial present value factors are applied before or after the allocation. The benefit allocation actuarial cost methods (primarily the family of unit credit actuarial cost methods) and cost allocation actuarial cost methods are acceptable classes of actuarial cost methods. There is no inherent reason to consider as automatically unacceptable any actuarial cost method that might not be characterizable under either of the two classes.

- c. *Acceptable Methods.* An acceptable actuarial cost method should meet the following criteria:
    - c.1. The period over which the allocation is made for an individual should begin no earlier than the date of employment and not substantially later than the date of entry into the plan (e.g. completion of one year of service and attainment of age 21) and should not extend beyond the last assumed retirement age. Normally, the period of allocation should not end before the end of the period during which the participant is accruing a benefit under the plan. The period could be on an individual or group basis.
    - c.2. The pro-ratio basis by which the allocation is made should usually have a logical relationship to some element of the plan's benefit formula. Acceptable bases include compensation, service, (rate of) benefit accrual, or any reasonable proxy for one or a combination of these. The pro-ratio basis could be applied on either an individual or group basis (e.g. the actuarial present value of plan benefits for each individual allocated by that individual's own compensation or the actuarial present value of plan benefits for the whole active life population allocated by the aggregated compensation).
  - d. *Relationship between Method and Policy.* Even where a plan sponsor's cost allocation or funding policy for a particular plan is based on an acceptable actuarial cost method, that method will, in most instances, influence the cost allocation or funding decision, but will not determine it. For example, an actuarial cost method's actuarial accrued liability at plan inception may define an unfunded actuarial accrued liability, but it will not define the amortization policy under which that amount is allocated or funded.
  - e. *Benefit Security.* In many cases, benefit security depends to a significant degree on the accumulation of sufficient plan assets. In these cases, concern about benefit security is an integral part of an actuarial cost method's acceptability as a basis for funding. Methods such as pay-as-you-go and terminal funding may not produce adequate benefit security.
  - f. *Purpose of the Valuation.* The purpose of valuation should be considered in the choice of the actuarial cost method.
  - g. *Disclosure.* The actuary should include in the valuation report:
    - g.1. a clear and concise description of the actuarial cost method;
    - g.2. changes in the actuarial cost method since the last valuation; and
    - g.3. the effect of the changes.
7. **Valuation of Assets.** Asset valuation is an integral part of the actuarial valuations of funded plans. In such cases, the valuation of assets and the valuation of liabilities are interdependent and one cannot be considered in isolation from the other.
- a. *Selection of Methods.* Since fund assets will be used to support eventual cash flows, their value should reflect realizable amounts in the future. In general, the actuarial value of assets used in the valuation should bear a reasonable relationship to market value. In valuing the fund's assets, the following methods may be used, to the extent consistent with the purposes for which the valuation is being made:
    - a.1. Market value;
    - a.2. A method which recognizes the long-term value of the assets in the context of the economic assumptions selected. This method may require smoothing out the effects of short term volatility in market value;
    - a.3. Amortized value for bonds and other debt instruments; and,

- a.4. A method which may involve the direct discounting of the expected investment income from all or some of the assets. The discount rate used should be consistent with the investment return assumption used in determining actuarial present values.
  - b. *Market Value Not Determinable.* Not all types of assets have a readily determinable current market value. Examples include certain insurance contracts and real estate. If market values are not available with respect to significant portions of the assets, the actuary should disclose this fact and the asset valuation method used for such assets.
  - c. *Disclosure.* The asset valuation method(s) used should be clearly stated in the valuation report. A comparison of the book and market values of assets, if available, should also be shown. Any changes made in the asset valuation method(s) since the last valuation and the effect of such changes should also be disclosed. Finally, any reliance on third parties as to the asset values must be disclosed.
8. **Amortization – Factors Considered.** Amortization may be required for such things as initial or unfunded actuarial liabilities, actuarial gains and losses and changes in actuarial liabilities due to plan amendments or changes in actuarial assumptions. The pattern of amortization during each selected period should be rational and systematic, such as a level annual peso amount or a level percentage of participants' payroll. The choice of an amortization period or range of periods should reflect:
- a. Any known limitations in the continuing ability of the plan sponsor to fund the plan. For example, consideration should be given to the probable future careers of the firm's principals for the plan of a small professional corporation, or the probable future lifetime of the plan sponsor;
  - b. The period over which the sponsor is benefited by the plan provision giving rise to the actuarial present value being amortized;
  - c. The existing relationship between assets and actuarial liabilities;
  - d. Progress toward meeting cash flow needs or a desired funding goal; and,
  - e. Permissible smoothing of costs or contributions.

### III. ACTUARIAL CALCULATIONS

1. **Actuarial Present Value of Benefits Accrued to Date.** The actuary may calculate actuarial present values of accrued benefits, where such calculations are supplemental to, and independent of, calculations made under the actuarial cost method used for determining pension cost or benefit recommendations. Frequently, the results of such calculations are compared to available assets as one measure of the funded status of the plan. Such supplemental calculations of actuarial present values would normally fall into three broad categories as set forth in the rest of this subsection. The procedures used to determine the actuarial present value of accrued benefits should reflect the actuary's best judgment as to the most meaningful figure for such actuarial present value in the light of the purposes for which the calculation is to be used. In presenting the results, the actuary's report should clearly indicate the treatment afforded to matters such as the following:
  - a. The manner in which benefits are calculated in the case of a plan which limits the number of years that may be credited or which has a non-uniform benefit accrual formula;
  - b. Whether a projection of future earnings was applied in calculating benefits accrued to the calculations date;
  - c. Whether recognition was given to any benefits which, if an employee continued in employment, could become payable before normal retirement age with an actuarial

- present value greater than the actuarial present value of the accrued normal retirement benefit;
- d. Whether benefit increases scheduled to occur after retirement were recognized;
  - e. Whether SSS or Pag-IBIG benefits, under an integrated offset plan, were reflected in full or pro-rated; and,
  - f. Whether average SSS or Pag-IBIG covered earnings, if applicable under an integrated step-rate plan, were related to past service only or were projected to normal retirement.
2. **Actuarial Present Value of Benefits Payable upon Plan Termination.** Where calculations are required to determine the actuarial present value of benefits payable in the event of a plan termination, the actuary may be required to calculate the actuarial present value of benefits payable for each relevant class of participants in accordance with termination priorities specified in the plan. The actuary should first determine the plan benefits for each covered participant as if the plan were terminating as of the calculation date. The actuary should then calculate the actuarial present value of such benefits by applying actuarial assumptions appropriate to a plan in the process of termination, such assumptions generally being limited to mortality, investment return, retirement age, election of optional forms and expense charges. For a retirement plan, however, that provides for the immediate payment of lump sum benefits upon plan termination, the actuarial present value of benefits payable upon plan termination would simply be the amount that would be payable if the plan were terminated on the calculation date.
3. **Actuarial Present Value of Vested Benefits.** Where calculations are required in the case of an active plan to determine the actuarial present value of vested benefits, the actuary should calculate the accrued benefit as of the calculation date. This benefit should then be multiplied by the vesting percentage defined under the plan. The actuary should then calculate the actuarial present value of such benefits by applying factors based on actuarial assumptions applicable to an active plan situation. The assumed investment return should be consistent with the plan's actuarial asset valuation method. The calculations should be made in accordance with the following procedures, to the extent they are applicable:
- a. No recognition should be given to any benefit to which a covered employee could, only through advancement in service or age while in active employment, become entitled.
  - b. Cost-of-living or other benefit increases specified by the plan and assumed to occur after retirement, death, or other termination should be recognized.
  - c. There should be no projection of SSS or Pag-IBIG benefits or SSS or Pag-IBIG covered earnings, other than as specified by the plan for the purpose of determining the benefit of a covered employee who retires or terminates service on the calculation date.
4. **Actuarial Present Value of Accrued Benefits under an Active Plan.** Under many retirement plans, benefits accrued to the calculation date are directly computed on the basis of historical employee records. In such cases the actuary generally should calculate the actuarial present value of accrued benefits on the basis of such directly computed accrued benefits. A substantial number of retirement plans contain features such that an actuary may wish to employ an alternative calculation. Examples of such plans are:
- a. Plans with maximum credited service provisions or other non-uniform benefit accrual formulas;
  - b. Plans with SSS or Pag-IBIG offset provisions where credited service used to compute such offsets is limited to a shorter period of credited service than that used to compute the gross pension benefit;

- c. Plans providing early retirement benefits with an actuarial present value greater than the actuarial present value of the accrued benefit to which the participant would be entitled commencing at normal retirement date;
  - d. Plans with automatic cost-of-living increases; and,
  - e. Contributory plans under which the plan's accrued benefit may have an actuarial present value less than that of accumulated employee contributions.
5. **Approximations.** The actuary may use appropriate approximations consistent with the intent of these Standards. Approximations, including the use of samples, are only acceptable if the results can reasonably be expected not to differ significantly from the results of detailed calculations, given the intended use of the calculations.
6. **Margins.** Margins may be imputed in the actuarial valuation of retirement plans for the following reasons:
- a. Insufficiency / unavailability of data;
  - b. Unreliability of data;
  - c. Use of approximations;
  - d. Anticipated fluctuations in assets and liabilities;
  - e. Uncertainty in the assumptions; and,
  - f. Anticipated benefit improvements.

It must, however, be understood by the actuary that margins are meant to be temporary and that maximum effort should be exerted to obviate the need for margins in future valuations. The actuary should identify in the valuation report the margins imputed in the calculations, their purpose and any changes made since the last valuation.

7. **Adjustment of Prior Calculation.** In deciding whether an approximation based on a prior calculation may be used in lieu of a detailed calculation, the actuary should consider such items as:
- a. Changes in number of participants;
  - b. Changes in covered payroll;
  - c. Changes in the average age and service of participants;
  - d. Amendments to plan provisions;
  - e. Changes in external factors; and,
  - f. Length of period since a detailed actuarial valuation was performed.

In approximating results based on prior actuarial calculations, the actuary should project assets and actuarial liabilities in a consistent manner.

8. **Ancillary Benefits.** In deciding whether an approximation may be used in lieu of a detailed calculation for ancillary benefits, the actuary should consider such items as:
- a. The magnitude of the benefit and its associated actuarial liabilities; and,
  - b. The pattern of cost allocation in the approximation.

#### IV. ACTUARY'S RESPONSIBILITY

A fundamental consideration in a funding program is the extent to which assets can reasonably be expected to ultimately exceed or fall short of the value of accrued benefits. This standard indicates that the actuary does not have complete responsibility for each element of the pension funding and cost allocation decisions, but shares responsibility for certain elements with the plan sponsor, attorney, accountant, and statutory authorities. Nevertheless, the actuary remains responsible for assessing the implications of the overall results, in terms of short- and long-range benefit security and expected cost progression. The extent to which benefits of a plan should be funded in advance of the date when they must be paid is a decision to be made by the plan sponsor, with the assistance of the actuary, in light of many factors, including regulatory requirements, collective bargaining considerations and alternative uses of money.

#### V. REPORTING REQUIREMENTS

1. **General Requirements.** The actuary should prepare an actuarial valuation report containing sufficient information so that it will be clearly understood and properly interpreted by its intended user. The report should be so written as to permit another actuary to form an objective appraisal of the valuation. It must contain all actuarially computed items necessary for the purposes for which the valuation is made.
2. **Specific Requirements.** In addition to the disclosure items set out in the preceding portions of these Standards, every actuarial valuation report should contain:
  - a. The name, signature and professional affiliation of the actuary responsible for its content;
  - b. The name of the person or firm retaining the actuary for the report;
  - c. An outline of the benefits being valued and of any benefits not considered in the actuarial calculations;
  - d. The valuation date or the effective date of the calculations;
  - e. A statement of the findings, conclusions, or recommendations necessary to satisfy the purpose of the valuation;
  - f. A statement of opinion by the actuary regarding:
    - f.1. the sufficiency and reliability of the data
    - f.2. the adequacy and appropriateness of assumptions
    - f.3. adherence to sound actuarial principles in the choice of methods for the valuation of assets and liabilities
  - g. A statement by the actuary that the report has been prepared and opinions given are in accordance with generally accepted actuarial principles. (This statement can only be given if the actuary has followed the principles set out in these Standards);
  - h. A disclosure of deviations from these Standards, if any, in the preparation of the material presented in the actuarial valuation report; and,
  - i. A disclosure of any facts which, if not disclosed, might reasonably be expected to lead to an incomplete understanding of the report.

3. **Actuarial Communications Related to Accounting Standards.** The Accounting Standards Council prescribes the accounting standards for use in accounting for the costs of providing retirement benefits for employees in the employer's financial statements. An actuarial communication for purposes of these accounting standards must be identified as such. The results of calculations prepared for other purposes (e.g. funding, plan reporting, government requirements, plan terminations, etc.) are likely to be significantly different and the actuary should disclose this fact.

## **Appendix I – DEFINITION OF TERMS**

### **Accrued Benefit or Accumulated Plan Benefit**

The amount of an individual's benefit (whether or not vested) as of a specified date, determined in accordance with the terms of a retirement plan and based on compensation (if applicable) and service to that date.

### **Actuarial Accrued Liability, Actuarial Liability, Accrued Liability, or Actuarial Reserve**

That portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value of retirement plan benefits and expenses which is not provided for by future Normal Costs.

*Note: The presentation of an Actuarial Accrued Liability should be accompanied by reference to the Actuarial Cost Method used; for example, by hyphenation ("Actuarial Accrued Liability – XYZ," where "XYZ" denotes the Actuarial Cost Method) or by a footnote.*

### **Actuarial Assumptions**

Assumptions as to the occurrence of future events affecting benefit costs, such as: mortality, withdrawal, disability and retirement; changes in compensation; rates of investment earnings and asset appreciation or depreciation; procedures used to determine the Actuarial Value of Assets; characteristics of future entrants for Open Group Actuarial Cost Methods; and other relevant items.

### **Actuarial Cost Method or Funding Method**

A procedure for determining the Actuarial Present Value of retirement plan benefits and expenses and for developing an actuarially equivalent allocation of such value to time periods, usually in the form of a Normal Cost and an Actuarial Accrued Liability.

*Note: An Actuarial Cost Method is understood to be a Closed Group Actuarial Cost Method unless otherwise stated.*

### **Actuarial Gain (Loss) or Experience Gain (Loss)**

A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two Actuarial Valuation dates, as determined in accordance with a particular Actuarial Cost Method.

*Note 1: The effect on the Actuarial Accrued Liability and/or the Normal Cost resulting from changes in the Actuarial Assumptions, the Actuarial Cost Method or retirement plan provisions should be described as such, not as an Actuarial Gain (Loss).*

*Note 2: The manner in which the Actuarial Gain (Loss) affects future Normal Cost and Actuarial Accrued Liability allocations depends upon the particular Actuarial Cost Method used.*

### **Actuarial Present Value**

The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions. For purposes of these Standards, each such amount or series of amounts is:

- a. adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, SSS or Pag-IBIG, marital status, etc.);
- b. multiplied by the probability of the occurrence of an event (such as survival, death, disability, termination of employment, etc.) on which the payment is conditioned; and,
- c. discounted according to an assumed rate (or rates) of return to reflect the time value of money.

### **Actuarial Valuation**

The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a retirement plan.

### **Actuarial Value of Assets or Valuation Assets**

The value of cash, investments and other property belonging to a retirement plan, as used by the actuary for the purpose of an Actuarial Valuation.

*Note: The statement of Actuarial Assumptions should set forth the particular procedures used to determine this value.*

### **Actuarially Equivalent**

Of equal Actuarial Present Value, determined as of a given date with each value based on the same set of Actuarial Assumptions.

### **Amortization Payment**

That portion of the retirement plan contribution which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability or the Unfunded Frozen Actuarial Accrued Liability.

### **Normal Cost or Normal Actuarial Cost**

That portion of the Actuarial Present Value of retirement plan benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method.

*Note 1: The presentation of Normal Cost should be accompanied by reference to the Actuarial Cost Method used.*

*Note 2: Any payment in respect of an Unfunded Actuarial Accrued Liability is not part of Normal Cost (see Amortization Payment).*

*Note 3: For retirement plan benefits which are provided in part by employee contributions, Normal Cost refers to the total of employee contributions and employer Normal Cost unless otherwise specifically stated.*

### **One-Year Term Cost**

The Actuarial Present Value, as of a valuation date, of all benefits expected to become payable in the future as a result of an event or events expected to occur during a valuation year.

### **Open Group / Closed Group**

Terms used to distinguish between two classes of Actuarial Cost Methods. Under an Open Group Actuarial Cost Method, Actuarial Present Values associated with expected future entrants are considered; under a Closed Group Actuarial Cost Method, Actuarial Present Values associated with future entrants are not considered.

### **Pay-As-You-Go**

A method of financing a retirement plan under which the contributions to the plan are generally made at about the same time and in about the same amount as benefit payments and expenses becoming due.

### **Projected Benefits**

Those retirement plan benefit amounts which are expected to be paid at various future times under a particular set of Actuarial Assumptions, taking into account such items as the effect of advancement in age and past and anticipated future compensation and service credits. That portion of an individual's Projected Benefit allocated to service to date, determined in accordance with the terms of a retirement plan and based on future compensation as projected to retirement, is called the Credited Projected Benefit.

### **SSS or Pag-IBIG Benefits**

Mandated benefits from the two public retirement plans: Social Security System and the Home Development Mutual Fund, respectively.

### **Terminal Funding**

A method of funding a retirement plan under which the entire Actuarial Present Value of benefits for each individual is contributed to the plan's fund at the time of withdrawal, retirement or benefit commencement.

### **Unfunded Actuarial Accrued Liability, or Unfunded Actuarial Reserve**

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets.

*Note: This value may be negative in which case it may be expressed as a negative Unfunded Actuarial Accrued Liability, the excess of the Actuarial Value of Assets over the Actuarial Accrued Liability, or the Funding Excess.*

### **Unfunded Frozen Actuarial Accrued Liability or Unfunded Frozen Actuarial Liability**

An Unfunded Actuarial Accrued Liability which is not adjusted ("frozen") from one Actuarial Valuation to the next to reflect Actuarial Gains (Losses) under certain Actuarial Cost Methods. Generally, this amount is adjusted by any increments or decrements in Actuarial Accrued Liability due to changes in retirement plan benefits or Actuarial Assumptions subsequent to the date it is frozen. Adjustments are made from one Actuarial Valuation to the next to reflect the addition of interest and deduction of Amortization Payments.

## **Appendix II – ACTUARIAL COST METHODS**

### **Unit Credit Actuarial Cost Method**

A method under which the benefits (projected or unprojected) of each individual included in an Actuarial Valuation are allocated by a consistent formula to valuation years. The Actuarial Present Value of benefits allocated to a valuation year is called the Normal Cost. The Actuarial Present Value of benefits allocated to all periods prior to a valuation year is called the Actuarial Accrued Liability.

*Note 1: The description of this method should state the procedures used, including:*

- a. How benefits are allocated to specific time periods;*
- b. The procedures used to project benefits, if applicable; and,*
- c. A description of any other method used to value a portion of the retirement plan's benefits.*

*Note 2: Under this method, the Actuarial Gains (Losses), as they occur, generally reduce (increase) the Unfunded Actuarial Accrued Liability.*

### **Entry Age Actuarial Cost Method or Entry Age Normal Actuarial Cost Method**

A method under which the Actuarial Present Value of the Projected Benefits of each individual included in an Actuarial Valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age(s). The portion of this Actuarial Present Value allocated to a valuation year is called the Normal Cost. The portion of this Actuarial Present Value not provided for at a valuation date by the Actuarial Present Value of future Normal Costs is called the Actuarial Accrued Liability.

*Note 1: The description of this method should state the procedures used, including:*

- a. Whether the allocation is based on earnings or service;*
- b. Where aggregation is used in the calculation process;*
- c. How entry age is established;*
- d. What procedures are used when different benefit formulas apply to various periods of service; and,*
- e. A description of any other method used to value a portion of the retirement plan's benefits.*

*Note 2: Under this method, the Actuarial Gains (Losses), as they occur, reduce (increase) the Unfunded Actuarial Accrued Liability.*

### **Attained Age Actuarial Cost Method**

A method under which the excess of the Actuarial Present Value of Projected Benefits over the Actuarial Accrued Liability in respect of each individual included in an Actuarial Valuation is allocated on a level basis over the earnings or service of the individual between the valuation date and assumed exit. The portion of this Actuarial Present Value which is allocated to a valuation year is called the Normal Cost. The Actuarial Accrued Liability is determined using the Unit Credit Actuarial Cost Method.

*Note 1: The description of this method should state the procedures used, including:*

- a. Whether the allocation is based on earnings or service;*
- b. Where aggregation is used in the calculation process; and,*

*c. A description of any other method used to value a portion of the retirement plan's benefits.*

*Note 2: Under this method, the Actuarial Gains (Losses), as they occur, reduce (increase) the Unfunded Actuarial Accrued Liability.*

*Note 3: The differences which regularly arise between the Normal Cost under this method and the Normal Cost under the Unit Credit Actuarial Cost Method will affect the determination of future Actuarial Gains (Losses).*

### **Aggregate Actuarial Cost Method**

A method under which the excess of the Actuarial Present Value of Projected Benefits of the group included in an Actuarial Valuation over the Actuarial Value of Assets is allocated on a level basis over the earnings or service of the group between the valuation date and assumed exit. This allocation is performed for the group as a whole, not as a sum of individual allocations. That portion of the Actuarial Present Value allocated to a valuation year is called the Normal Cost. The Actuarial Accrued Liability is equal to the Actuarial Value of Assets.

*Note 1: The description of this method should state the procedures used, including:*

- a. Whether the allocation is based on earnings or service;*
- b. How aggregation is used in the calculation process; and,*
- c. A description of any other method used to value a portion of the retirement plan's benefits.*

*Note 2: Under this method, the Actuarial Gains (Losses), as they occur, reduce (increase) future Normal Costs.*

### **Frozen Entry Age Actuarial Cost Method**

A method under which the excess of the Actuarial Present Value of Projected Benefits of the group included in an Actuarial Valuation, over the sum of the Actuarial Value of Assets plus the Unfunded Frozen Actuarial Accrued Liability, is allocated on a level basis over the earnings or service of the group between the valuation date and assumed exit. This allocation is performed for the group as a whole, not as a sum of individual allocations. The Frozen Actuarial Accrued Liability is determined using the Entry Age Actuarial Cost Method. The portion of this Actuarial Present Value allocated to a valuation year is called the Normal Cost.

*Note 1: The description of this method should state the procedures used, including:*

- a. Whether the allocation is based on earnings or service;*
- b. How aggregation is used in the calculation process; and,*
- c. A description of any other method used to value a portion of the retirement plan's benefits.*

*Note 2: Under this method, the Actuarial Gains (Losses), as they occur, reduce (increase) future Normal Costs.*

### **Frozen Attained Age Actuarial Cost Method**

A method under which the excess of the Actuarial Present Value of Projected Benefits of the group included in an Actuarial Valuation, over the sum of the Actuarial Value of Assets plus the Unfunded Frozen Actuarial Accrued Liability, is allocated on a level basis over the earnings or service of the group between the valuation date and assumed exit. This allocation is performed for the group as a whole, not as a sum of individual allocations. The Unfunded Frozen Actuarial Accrued Liability is determined using the

Unit Credit Actuarial Cost Method. The portion of this Actuarial Present Value allocated to a valuation year is called the Normal Cost.

*Note 1: The description of this method should state the procedures used, including:*

- a. Whether the allocation is based on earnings or service;*
- b. How aggregation is used in the calculation process; and*
- c. A description of any other method used to value a portion of the retirement plan's benefits.*

*Note 2: Under this method, the Actuarial Gains (Losses), as they occur, reduce (increase) future Normal Costs.*

### **Individual Level Actuarial Cost Method or Individual Level Premium Actuarial Cost Method**

A method under which the Actuarial Present Value of each increment of an individual's Projected Benefits is allocated on a level basis over the future earnings or service of the individual between the age at which such increment is first recognized and the exit age(s). The portion of this Actuarial Present Value allocated to a valuation year is called the Normal Cost. Each individual's portion of the Actuarial Accrued Liability should be determined on a consistent basis, usually as the retrospective accumulation of the individual's prior Actuarial Accrued Liability and prior Normal Cost, using the valuation Actuarial Assumptions.

*Note 1: The description of this method should state the procedures used, including:*

- a. Whether the allocation is based on earnings or service; and*
- b. A description of any other method used to value a portion of the retirement plan's benefits.*

*Note 2: Under this method, Actuarial Gains (Losses), as they occur, result in amortization credits (debits) which offset (supplement) Normal Cost. Increases (decreases) in Projected Benefits from one valuation date to the next usually produce Normal Cost increments (decrements) rather than Actuarial Losses (Gains).*

### **Individual Spread Gain Actuarial Cost Method or Individual Aggregate Actuarial Cost Method**

A method under which the Actuarial Present Value of each increment of an individual's Projected Benefits is allocated on a level basis over the future earnings or service of the individual between the age at which such increment is first recognized and the exit age(s). The portion of this Actuarial

Present Value allocated to a valuation year is called the Normal Cost. The Actuarial Value of Assets is deemed to be assigned to individuals on a reasonable and consistent basis; for example, each individual's share may be the accumulation of his or her prior Normal Costs and any prior Actuarial Gains (Losses) allocated to the individual. Actuarial Gains (Losses) are allocated to individuals in proportion to the assigned Actuarial Value of Assets, or on any other reasonable and consistent basis. The Actuarial Accrued Liability for an individual equals the assigned portion of the Actuarial Value of Assets.

*Note 1: The description of this method should state the procedures used, including:*

- a. Whether the allocation is based on earnings or service; and*
- b. A description of any other method used to value a portion of the retirement plan's benefits.*

*Note 2: Under this method, the Actuarial Gains (Losses), as they occur, reduce (increase) future Normal Costs.*

*Note 3: This method has the effect of applying the Aggregate Actuarial Cost Method separately for each individual*

### **Projection Actuarial Cost Method or Forecast Actuarial Cost Method**

A method under which the excess of the Actuarial Present Value of the sum of Projected Benefit Payments for a specified period plus a funding objective as of the end of the period over the Actuarial Value of Assets is allocated on a level basis over the earnings or service of the group during the specified period, including earnings or service for any future entrants assumed. The allocation is performed for the group as a whole, not as a sum of individual allocations. The portion of this Actuarial Present Value allocated to a valuation year is called the “Annual Cost Allocation.”

*Note 1: The description of this method should:*

- a. Explain the funding objective, and describe any anticipated benefit increases which have been taken into account;*
- b. Specify the period involved, and any scheduled changes to that period for future valuations;*
- c. State the procedure used to allocate the excess and whether the allocation is based on earnings or service; and,*
- d. State the Actuarial Cost Method to be used to determine future allocations when the end of the specified period is reached.*

*Note 2: The funding objective will usually be expressed as the Actuarial Accrued Liability as projected to exist under another Actuarial Cost Method at the end of the specified period.*

*Note 3: Under this method, Actuarial Gains (Losses), as they occur, reduce (increase) the Annual Cost Allocation.*

*Note 4: Only a Projection Actuarial Cost Method with an Open Group assumption should be so labeled; if an Open Group assumption is used with any other Actuarial Cost Method, the method should be named and the Open Group assumption described.*

## **RECOMMENDATIONS FOR VALUATION OF RETIREMENT PLANS**

**(Adopted November 22, 1991)**

### **I. INTRODUCTION**

1. **Scope.** These recommendations set forth guidelines for members who perform actuarial valuations of defined benefit retirement plans covering persons in the Philippines.
2. **Approximations.** Approximations may be resorted to in cases where it may be advisable to do so as determined by the actuary. However, the use of approximations should not, in the actuary's judgment, materially affect the results of the valuation.
3. **Materiality.** Materiality should be determined in relation to each normal user of the valuation report. A difference is material if knowledge or ignorance of such difference would influence the judgment of the user regarding the actuarial status of the retirement plan, with due regard given to the purpose or the intended use of the calculations.
4. **Documentation.** The actuary should at all times be prepared to support the procedures he/she followed in the valuation process by means of adequate written records.
5. **Disclosure.** There must be adequate disclosure in a valuation report. Adequate disclosure means that all material and relevant facts concerning the actuarial valuation should be communicated to the users of the valuation report.

### **II. DATA AND OTHER INFORMATION**

1. **Types of Data.** The actuary should obtain at least the following data/information to be able to perform the basic actuarial calculations:
  - (a) plan participant data
  - (b) retirement fund information
  - (c) retirement plan provisions and pertinent CBA provisions, company policies and practices
  - (d) copy of the last valuation report, if available
2. **Sources of Data and Check Procedures.** The actuary will generally rely on the plan administrator or some other officer of the plan sponsor for the necessary data who, in turn, may refer him/her to qualified third parties. The actuary should establish suitable check procedures to test the validity and verify the reasonableness of the data. If the actuary is not satisfied with the validity and reasonableness of the information, further inquiry should be made until he/she is so satisfied.
3. **Insufficient Data.** The actuary should not perform an actuarial calculation if, in his judgment, the information available is substantially less than complete and cannot reasonably be approximated, i.e., there is sufficient uncertainty about the characteristics of the unknown information that would render the results of the calculations inadequate for the intended purpose.

4. Disclosure. The actuarial valuation report should mention the date as of which the data was compiled, the sources of the data, and any assumptions made with respect to unavailable information. A summary of statistics regarding plan participants should also be included in the report.

### III. ASSET VALUATION

1. Significance. Asset valuation is an integral part of the actuarial cost calculation. The valuation of assets and the valuation of liabilities are interdependent and one cannot be considered in isolation from the other.
2. Reliance on Third Parties. The actuary will generally rely on the custodian of the assets of the retirement fund or some other third party for information regarding fund assets. Although the actuary will not be solely responsible for the asset values, he/she should be satisfied with the validity and reasonableness of the information before such can be used in the actuarial report.
3. Selection of Methods. Since fund assets will be used to support eventual cash flows, their value should reflect realizable amounts in the future. In general, the actuarial value of assets used in the valuation should bear a reasonable relationship to market value. In valuing the fund's assets, the following methods may be used:
  - (a) Market value;
  - (b) A method which recognizes the long-term value of the assets in the context of the economic assumptions selected. This method may require smoothing out the effects of short term volatility in market value;
  - (c) Amortized value for bonds and other debt instruments; and
  - (d) A method which may involve the direct discounting of the expected investment income from all or some of the assets. The discount rate used should be consistent with the investment return assumption used in determining actuarial present values.
4. Disclosure. The asset valuation method(s) used should be clearly stated in the valuation report. A comparison of the book and market values of assets, if available, should also be shown. Any changes made to the asset valuation method(s) since the last valuation and the effect of such changes should also be disclosed.

### IV. ACTUARIAL ASSUMPTIONS

1. Appropriateness. The actuarial assumptions should reflect the actuary's judgment of future events affecting the retirement program. The actuarial assumptions should recognize the actual experience of the covered group as well as reflect expected long term trends without giving undue emphasis to recent past experience.
2. Interrelationships. Preferably, actuarial assumption should be independently reasonable. The actuary should be satisfied that the assumptions used are consistent and reasonable in the aggregate. However, the actuary may choose to use one or more assumptions which he/she

does not consider independently reasonable as long as compensating adjustments are made in related assumptions. In such case, the results of the valuation should not materially differ from one where independently reasonable assumptions have been used.

3. Selection of Assumptions and Factors. The actuary should make an assumption about every contingency which materially affects the valuation results. A conscious decision should be made to ignore a given contingency where it is appropriate to do so. Some contingencies which the actuary should consider in making assumptions are:
  - (a) investment return
  - (b) inflation
  - (c) salary increases
  - (d) government-provided benefits
  - (e) post-retirement benefit adjustments
  - (f) incidence of retirement
  - (g) mortality
  - (h) disability
  - (i) voluntary termination
  - (j) involuntary termination
  - (k) family composition
  - (l) administrative expenses
  - (m) modes of benefit payment
4. Disclosure. The actuarial assumptions used should be described in the valuation report. Assumptions which in the actuary's judgment could materially affect the valuation but were not made should be disclosed. Finally, the report should also disclose the changes in the assumptions since the previous valuation and should indicate the effect of the changes.

## V. ACTUARIAL COST METHODS

1. Selection of Method. The purpose of valuation should be considered in the choice of the actuarial cost method. Calculations may be performed for a number of purposes, among them:
  - (a) funding of the plan in order to accumulate sufficient assets to provide for eventual benefit payments;
  - (b) accounting for the costs of the plan to properly allocate costs to specific time period; and
  - (c) allocation of plan assets in case of plan termination, company merger or spin-off.
2. Actuarial Cost Methods for Funding. The main purpose of funding is to provide security of the benefit rights of the plan participants. The actuary should always bear this purpose in mind as well as the plan sponsor's budgetary constraints in considering the actuarial method and in formulating recommendations on the level of funding. For example, the actuary should consider projecting salaries in the case of final-pay or final-average-pay plans.

If the actual level of funding exceeds or falls short of the desired level, the actuary should recommend an appropriate period for the amortization of such excess or shortfall.

The actuary should explain to the plan sponsor the effect of the selected method on the security of benefits and on the amount of current and future contributions.

3. Actuarial Valuation for Accounting Purposes. The actuary should use an actuarial cost method which is consistent with the specified accounting objective. The actuarial cost method should provide for a reasonable and consistent allocation of costs between years of operations of the plan sponsor.
4. Actuarial Valuation for Purposes of Allocating Assets. Allocation of plan assets may be needed in case of plan wind-ups, plan reorganization, or sale, purchase, or reorganization of the plan sponsor. The actuary should consider the purpose of allocating a plan's assets when choosing an actuarial cost method.

Factors which the actuary should consider in formulating his/her recommendations include:

- (a) the provisions of the retirement plan;
  - (b) the desires of the plan sponsor;
  - (c) the equity among various employee groups; and
  - (d) the agreement between the parties concerned.
5. Disclosure. The actuary should include in the valuation report:
    - (a) a clear and concise description of the actuarial cost method;
    - (b) changes in the actuarial cost method since the last valuation; and
    - (c) the effect of the changes.

## VI. MARGINS

1. Reasons for Margins. Margins may be imputed in the actuarial valuation of retirement plans for the following reasons:
  - (a) insufficiency/unavailability of data;
  - (b) unreliability of data;
  - (c) use of approximations;
  - (d) anticipated fluctuations in assets and liabilities;
  - (e) uncertainty in the assumptions; and
  - (f) anticipated benefit improvements.

It must however be understood by the actuary that margins are meant to be temporary and that maximum effort should be exerted to obviate the need for margins in future valuations.

2. Disclosure. The actuary should identify in the valuation report the margins imputed in the calculations, their purpose and any changes made since the last valuation.

## VII. REPORTING REQUIREMENTS

1. General Requirements. The actuary should prepare an actuarial valuation report containing sufficient information so that it will be clearly understood and properly interpreted by its intended user. The report should be so written as to permit another actuary to form an objective appraisal of the valuation.
2. Specific Requirements. In addition to the disclosure items set out in the preceding portions of these Recommendations, every actuarial valuation report should contain:
  - (a) the name, signature and professional affiliation of the actuary responsible for its content;
  - (b) the name of the person or firm retaining the actuary for the report;
  - (c) the purpose which the report is intended to serve;
  - (d) an outline of the benefits being valued and of any benefits not considered in the actuarial calculations;
  - (e) the valuation date or the effective date of the calculations;
  - (f) a statement of the findings, conclusions, or recommendations necessary to satisfy the purpose of the valuation;
  - (g) a statement of opinion by the actuary regarding:
    - i. the sufficiency and reliability of the data
    - ii. the adequacy and appropriateness of assumptions
    - iii. adherence to sound actuarial principles in the choice of methods for the valuation of assets and liabilities
  - (h) a statement by the actuary that the report has been prepared and opinions given in accordance with generally accepted actuarial principles. (This statement can only be given if the actuary has followed the principles set out in these Recommendations);
  - (i) a disclosure of deviations from these Recommendations, if any, in the preparation of the material presented in the actuarial valuation report; and
  - (j) a disclosure of any facts which, if not disclosed, might reasonably be expected to lead to an incomplete understanding of the report.

**COMMUNICATIONS RELATED TO STATEMENT OF  
FINANCIAL ACCOUNTING STANDARDS NO. 24  
RETIREMENT BENEFIT COSTS  
(Adopted November 11, 1998)**

**1. Background**

The Accounting Standards Council has prescribed the use of Statement of Financial Accounting Standards No. 24 (SFAS 24) in accounting for the costs of providing retirement benefits for employees of an enterprise, in the financial statements of the enterprise. Much of the information required will have to be furnished by actuaries, generally obtainable from the various Actuarial Valuation Method employed by Actuaries. Some of these methods are described in Appendix A of SFAS 24.

**2. Purpose**

To establish disclosure standards for actuarial communications on retirement benefit plan valuation which may be used in reporting the costs of retirement benefits under SFAS 24, as well as for the other reports or opinions required from the Actuary in relation to retirement plans.

**3. Disclosure**

An actuarial communication for purposes of SFAS 24 must be identified as such. The results of the calculations prepared for other purposes, such as funding, plan reporting, government requirements, plan terminations, valuation of company liabilities, etc., are likely to be significantly different; the Actuary should disclose the facts.

**4. Forms of Disclosure**

Following are ways in which disclosure may be achieved:

- 4.1 A formal disclosure may be included in the SFAS 24 valuation report. Suggested wording is as follows:

“Actuarial computation under Statement of Financial Accounting Standards No. 24 (SFAS 24) are for purposes of fulfilling employer accounting requirements. The calculations reported herein have been made on a basis consistent with our understanding of SFAS 24. Determinations for purposes other than meeting employer financial accounting requirements may be significantly different from the results reported herein. Accordingly, additional determinations are needed for other purposes, such as judging benefit security at termination or adequacy of funding for an ongoing plan.”

- 4.2 If a multi-purpose valuation is made, the purpose of each valuation may be stated directly in the valuation results.

- 4.3 The purpose of valuation may be included in the Objective section of the valuation report.

- 4.4 The disclosure statement may be included in the Actuarial Certification section.

**MODEL RETIREMENT PLAN PROVISIONS**  
**(Non-Contributory)**  
**(Adopted February 1999)**

Article No.	Description	Page
I	Name, Objective and Effective Date	
II	Definitions	
III	Membership	
IV	Retirement Eligibility	
V	Benefits	
VI	Beneficiary	
VII	Retirement Committee	
VIII	The Retirement Fund	
IX	Appointment of Trustee and Investment of Funds	
X	Amendment and Termination of the Plan	
XI	Non-Reversion of Fund	
XII	Effect of Social Legislation	
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XIV	Miscellaneous Provisions	

## STANDARD RETIREMENT PLAN RULES

### ARTICLE I

#### NAME, OBJECTIVE AND EFFECTIVE DATE

##### Section 1 – Name

<Company Name> hereby establishes a retirement plan to be known as the <Name of Retirement Plan.>

##### Section 2 – Objective

The objective of this Plan is to provide through a Retirement Fund established by the Company, for the payment of retirement, death, total and permanent disability, and separation benefits to all its eligible Employees, and Beneficiaries, as the case may be, subject to the conditions and limitations hereinafter set forth.

##### Section 3 – Effective Date

The Plan shall take effect on \_\_\_\_\_.

### ARTICLE II

#### DEFINITIONS

The following words and phrases, as used herein, shall have the meaning indicated herein, unless a different meaning is plainly required by the context:

- (a) “**Actuary**” means an independent consultant who is a Fellow of the Actuarial Society of the Philippines or a firm of consultants with such a qualified actuary on its staff. Such actuary or firm is to be approved and selected by the Company.
- (b) “**Beneficiary**” or “Beneficiaries” means any person or persons designated by the Member to receive in the event of his death or inability by reason of physical or mental incapacity any amounts due him in accordance with the provisions of this Plan.
- (c) “**Company**” means \_\_\_\_\_.
- (d) “**Credited Service**” means \_\_\_\_\_.

A “break” in service shall be deemed to have occurred whenever the Member voluntarily resigns, is dismissed or discharged by the Company, fails to return to the service of the Company after an approved leave of absence, or when he ceases to be an Employee for any cause whatsoever as determined by the Retirement Committee.

(Optional) approved leave of absence, either with or without pay, shall not constitute a break in service.

If a former Employee is rehired after a break in service, his Credited Service shall commence on the date he is last rehired.

- (e) “**Employee**” means any person employed by the Company on a regular and permanent basis and classified as such in the payroll of the Company, excluding part time, casual and temporary staff, apprentices, and other persons, who under the normal practice of the Company, are not considered to be regular and permanent employees.
- (f) “**Final Monthly Salary**” ( if applicable) means the Member’s Monthly Salary earned in the month of retirement, death, disability or separation from the Company as the case maybe.
- (g) “**Investment Manager**” means any individual, group of individuals, or financial institution designated by the Trustee to manage and invest the Fund pursuant to the Trust Agreement.
- (h) “**Labor Code**” means the Labor Code of the Republic of the Philippines and includes any amendments thereto or re-enactments thereof.
- (i) “**Member**” means any Employee who has been admitted to membership in accordance with Article III hereof.
- (j) “**Monthly Salary**” means \_\_\_\_\_.
- (k) “**Plan**” means <Name of the Plan> as described herein and shall include all future amendments hereto.
- (l) “**Retirement Committee**” means the body created by the Company to administer the Plan in accordance with Article \_\_\_ hereof.
- (m) “**Retirement Fund**” or “**Fund**” means the retirement trust fund derived from the contributions paid by the Company to the Trustees whether in the form of cash or property, including all the increments or decrements thereto, and shall also be taken as referring to the assets constituting the retirement fund at any time.
- (n) “**Total and Permanent Disability**” (if applicable) means

(Option 1) inability to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or to be of long, continued and indefinite duration.

(Option 2) disability resulting from bodily injury due to accident or disease which wholly prevents the Member from engaging in any business or occupation to which he is reasonably suited by reason of education or training.

The disability must be certified by a medical examination acceptable to the Trustees.

- (o) “**Trust Agreement**” means the agreement entered into between the Company and the Trustees pursuant to Article \_\_\_ hereof.

- (p) “**Trustees**” means any individual, group of individuals or financial institution designated in the Trust Agreement to hold in Trust the assets of the Plan for the purpose of providing benefits under the Plan and shall include any successor trustee to the Trustee initially designated hereunder.

Whenever used herein the masculine shall include the feminine, the singular shall include the plural and vice versa unless the context otherwise indicates or requires.

### **ARTICLE III**

### **MEMBERSHIP**

#### **Section 1 – Eligibility at Effective Date**

All Employees in the service of the Company are automatically Members in the Plan, as of the Effective Date of the Plan.

#### **Section 2 – Eligibility After Effective Date**

Any person who becomes an Employee after the Effective Date shall become a Member of the Plan on \_\_\_\_\_.

#### **Section 3 – Termination**

Membership in this Plan shall cease automatically upon termination of the Member’s employment with the Company for any reason or upon full payment of the amounts, if any, due the Member hereunder.

#### **Section 4 – Re-Employment**

A Member whose membership in the Plan was terminated and who is subsequently re-employed by the Company shall, upon re-admission to the Plan and unless the Company directs otherwise, be treated as a new Member on the first day of the month coincident with or next following the commencement date of his regular employment with the Company; provided that Credited Service of such Employee shall commence on the date of his re-employment.

#### **Section 5 – Leave of Absence**

Membership in the Plan shall continue during any period in which a Member is on an approved leave of absence and during any period of absence due to furlough, sickness, accident or other causes not constituting a severance of employer-employee relationship. If a Member fails to return after an approved leave of absence, notwithstanding the Company’s order for him to report for work, the Employee loses his membership in the Plan as of the day he entered into such leave of absence.

**ARTICLE IV**

**RETIREMENT ELIGIBILITY**

**Section 1 – Normal Retirement Date**

The normal retirement date of a member shall be the first day of the month coincident with or next following the Member's \_\_\_\_\_ birthday and after rendering at least \_\_\_\_\_ years of Credited Service with the Company.

**Section 2 – Early Retirement (if applicable)**

A Member may, with the approval of the Company, retire and be entitled to the retirement benefits provided in Article \_\_\_\_\_, Section \_\_\_\_\_ hereof on the day he attains age \_\_\_\_\_, and after rendering at least \_\_\_\_\_ years of Credited Service with the Company.

**Section 3 -- Late Retirement**

A Member may, with the approval of the Company, continue in the service of the Company beyond his normal retirement date subject to a yearly extension basis, provided however that such extension of service, shall in no case extend beyond Employee's \_\_\_\_\_ birthday.

**ARTICLE V**

**BENEFITS**

**Section 1 – Normal Retirement Benefit**

Upon normal retirement, a Member shall be entitled to \_\_\_\_\_.

**Section 2 – Early Retirement Benefit**

Upon early retirement, a Member shall be entitled to \_\_\_\_\_.

**Section 3 – Late Retirement**

A Member whose retirement has been deferred, pursuant to Article IV, Section 3 hereof, shall be entitled to a retirement benefit equal to \_\_\_\_\_.

**Section 4 – Death Benefit** (if applicable)

If a Member dies before retirement, his duly designated Beneficiary or Beneficiaries shall be entitled to receive an amount equal to \_\_\_\_\_ calculated as at the date of death.

**Section 5 – Total and Permanent Disability Benefit** (if applicable)

In the event of total and permanent disability, as determined by a Company physician, a Member shall be entitled to receive an amount equal to \_\_\_\_\_ calculated as at the date of total and permanent disability.

**Section 6 – Voluntary Separation Benefit** (if applicable)

If a Member voluntarily resigns from the Company after completing at least \_\_\_\_ years of Credited Service, he will be entitled to receive an amount equal (to include table if necessary) \_\_\_\_\_ calculated as at date of voluntary separation.

**Section 7 – Involuntary Separation Benefit** (if applicable)

A Member who is separated from the employment of the Company for any reason (other than for just cause) beyond his control including, but not limited to, retrenchment or redundancy, shall be entitled to receive \_\_\_\_\_.

**Section 8 – Separation for Cause**

A Member who is separated for just cause by the Company pursuant to the applicable provisions of the Labor Code shall forfeit all his rights and privileges under the Plan.

**Section 9 – Availment of Benefits**

Availment of benefits under Sections 1 to 7 of this Article shall be exclusive and shall disqualify the Member from any other benefits under this Plan.

Any outstanding obligation of a member to the Plan or the Company upon his termination of membership from the Plan shall be deducted from the benefit payable to him under this Plan.

**Section 10 – Other Benefits**

No benefit other than those provided in accordance with Sections 1 to 7 of this Article shall be payable under this Plan.

### **Section 11 – Non-duplication of Benefit Payments**

Any benefit payable under this Plan shall be in lieu of or in compliance with, but not in addition to, the payment of similar benefits the Company is required to pay its Employees under existing laws, contracts or collective bargaining agreement(s).

## **ARTICLE VI**

### **BENEFICIARY**

#### **Section 1 – Nomination of Beneficiaries**

An Employee shall, upon joining the Plan, forthwith nominate in writing, in such forms as shall be prescribed by the Company, a person or persons, not otherwise disqualified by law, who will receive the benefit in case of his death or inability by reason of physical or mental incapacity to receive in person any sum due him under the Plan. Nomination must be made in accordance with existing laws.

If two or more beneficiaries are named and if the Member did not state their respective interest, they shall share equally.

#### **Section 2 – Change of Beneficiary**

Every nomination or appointment shall remain in force until the death of the nominee or appointee or until revoked or amended by the Member by delivering to the Company another nomination or appointment in the prescribed form.

Should a sole Beneficiary predecease the Member, the latter shall forthwith designate another person in place of the deceased Beneficiary. In the event, however, that one of several designated Beneficiaries predecease the Member, the latter may, at his option, designate another person in place of the deceased Beneficiary.

#### **Section 3 – Incompetent Beneficiary**

In the event that any person entitled to the benefits under this Plan is a minor or is otherwise incompetent at the time payment is due, the Company reserves the right to determine to whom such payment shall be made for and in behalf of the incompetent Beneficiary, and any such determination by the Company shall be conclusive and binding on all parties concerned.

#### **Section 4 – Failure to Nominate a Beneficiary**

If at the death of a Member there shall exist no valid nomination by him of a Beneficiary, he shall be conclusively presumed to have appointed as his Beneficiary the person or persons in the first of the following classes then surviving and if more than one in such class in equal shares:

- (1) Legitimate spouse;

- (2) Children;
- (3) Parents;
- (4) Brothers and sisters of the full blood; and
- (5) Member's estate

## **ARTICLE VII**

### **RETIREMENT COMMITTEE**

#### **Section 1 – Appointment**

The Company shall appoint a Retirement Committee of at least three (3) members to manage and administer this Plan in accordance with the provisions hereof. Each member is to serve for such term as the Company may designate, until a successor member has been appointed, or until removal of the Company. In the event of resignation, death, removal or other cause of the original members, new members shall be appointed by the Company. Retirement Committee members shall serve without compensation for the Committee services. All reasonable expenses of the Committee shall be paid by the Company. The Company may at any time revoke any appointment to the Retirement Committee.

#### **Section 2 – Actions of Committee**

The Committee shall act by agreement of a majority of its members, either by vote at a meeting or in writing if without a meeting. By such action, it may authorize one or more of its members to execute documents on its behalf and direct the Trustee in the performance of its duties hereunder. The Trustees, upon written notification of such authorization, shall accept and rely upon such documents until notified in writing that the authorization has been revoked by the Committee. The Trustee shall not be deemed to be on notice of any change in the membership of the Committee unless notified in writing.

A Member of the Committee, who is also a Member hereunder, shall not vote or act upon any matter relating solely to himself. In the event of a deadlock or other situation which prevents agreement of a majority of the Committee members, the matter shall be decided by the Company.

#### **Section 3 – Powers and Duties**

The Committee shall have the power and duty to do all things necessary or convenient to effect the intent and purpose of this Plan and, not inconsistent with any of the provisions hereof, whether or not such powers and duties are specifically set forth herein, and not in limitation but in amplification of the foregoing, shall have the power to:

- a. Construe the Plan and to determine all questions that shall arise hereunder, including, particularly, directions to and questions submitted by the Trustee on all matters necessary for it to properly discharge its powers and duties;
- b. Determine eligibility of Employees to participate in the Plan;

- c. Settle all questions involving interpretation of the provisions of the Plan and questions of entitlement to benefits
- d. Consider and approve investment policies and guidelines as provided for in the Trust Agreement;
- e. Approve all payments and disbursements from the Fund;
- f. Perform such other acts of administration necessary or desirable to implement the provisions and objectives of the Plan.

Decisions of the Committee made in good faith upon any matters within the scope of its authority shall be final and binding on the Company, the Trustees, Members and all others. The Committee, at all times, in making and carrying out of its decision and directions shall act in a uniform and non-discriminatory manner and may from time to time prescribe and modify the uniform rules of interpretation and administration.

#### **Section 4 – Advisers**

The Committee shall consult with or hire an independent Actuary, approved by the Company, who shall perform the actuarial valuation and other services necessary to maintain the Plan in an actuarially sound condition.

The Committee may likewise consult with independent auditors and lawyers to perform all necessary and related services in connection with operation of the Plan.

The expense of such adviser shall be paid by the Company, or if not paid by the company, the Committee may direct that such expenses be paid from the Fund

### **ARTICLE VIII**

#### **THE RETIREMENT FUND**

##### **Section 1 – Funding**

No member shall be required or permitted to make any contributions to the Retirement Fund.

The Company shall contribute to the Fund such amounts as may be recommended by an independent Actuary, on the basis of reasonable actuarial assumptions, to pay the benefits payable under these Rules and to maintain the Plan in an actuarially sound condition.

Such contributions of the Company, including income resulting from the investment and re-investment of the same, less all expenses and proper charges, shall constitute the Retirement Fund.

Although the Company intends to continue the Plan indefinitely, it reserves the right to discontinue, suspend, or change the rate and amount of its contributions to the Fund at any time for any reason whatsoever.

The Company shall not be liable to any person for failure on its part to make contributions as provided in this Article, nor shall any action lie to compel the Company to make such contributions.

**Section 2 – Irrevocability of Trust**

Subject only to the provisions of Article XI hereof, all contributions made by the Company to the Retirement Fund shall be held, solely and exclusively, for the benefits of the Members or their Beneficiaries and no part of the Fund shall be used for, or diverted to, purposes other than for the exclusive benefit of such Members or their Beneficiaries prior to the satisfaction of all liabilities under the Plan that the reasonable expenses of administering the Plan and the Fund may be paid out of the Fund to the extent that they are not borne by the Company.

**Section 3 – Interest in the Fund**

No Employee shall have any right, title or interest in or to any part of the assets of the Fund except as and to the extent expressly provided in the Plan.

**Section 4 – Forfeitures**

Any amount accrued under this Plan which is not paid by virtue of the limitations specified in this Rules and Regulations, such as forfeitures arising from separation for cause or voluntary resignation, shall not be applied to increase the benefits any Member would otherwise receive under the Plan at any time prior to the termination of the Plan or the complete discontinuance of contributions of the Company. The amount so forfeited shall be used as soon as possible to reduce future Company contributions under the Plan.

**Section 5 – Unclaimed Benefits**

Any amount payable to a former Member or his beneficiary, which for any reason is not claimed within a period of five (5) years from the date such amount becomes payable, shall be retained in the Fund and after such period shall be used to reduce subsequent contributions of the Company to the Fund.

**ARTICLE IX**

**APPOINTMENT OF TRUSTEE AND INVESTMENT OF FUNDS**

**Section 1 – Appointment of Trustees**

The Company shall establish a Trust Agreement and appoint a Trustee to hold and invest the assets of the Fund in accordance with the provisions of this Plan and the Trust Agreement. The Company shall have the authority to rename a Trustee and appoint successor Trustees.

## **Section 2 – Investment of Funds**

The Fund shall be held and invested by the Trustee, in accordance with the directions of the Committee. The Committee is hereby granted full power and authority to direct the Trustee to invest and reinvest the Fund or any part thereof in accordance with the standards set forth in the Trust Agreement and the provisions of this Article.

## **ARTICLE X**

### **AMENDMENT AND TERMINATION OF THE PLAN**

#### **Section 1 -- Modification, Suspension or Discontinuance**

Although it is expected that the Plan will continue indefinitely, it may be amended, suspended or terminated at anytime by the Company on account of business necessity or adverse economic conditions, but no such action of the Company shall operate to permit any part of the assets of the Fund to be used for, or diverted to, purposes other than for the exclusive benefit of the Members or their Beneficiaries. Neither shall it be applied retroactively so as to adversely alter or reduce in any way the benefit accrued to any Member on account of service prior to the date of such amendment, suspension or liabilities of the Plan have been satisfied.

#### **Section 2 – Disposition of the Fund on Plan Termination**

Upon the termination of the Plan, the liability of the Company to make contributions shall cease and the assets of the Fund shall be allocated after the satisfaction of all outstanding Fund expenses, taxes, duties, fees and charges incidental to the administration, management and termination of the Plan, for benefit of each Member accrued to the date of such termination or discontinuance, to the extent then funded, and payable in accordance with the following priorities:

- (a) **First**, all benefits due and payable but not yet paid at the date of termination to or in respect of Members whose employment has been terminated prior to such date by reason of retirement, death, or total and permanent disability shall be paid to the extent then funded; pro-rata if the fund is not sufficient.
- (b) Any funds remaining, **Second**, those Members eligible for retirement shall receive the value of their accrued benefits, to the extent then funded; pro-rata if the Fund is not sufficient;
- (c) Any funds remaining, **Third**, those Members involuntarily separated (except for just cause) by the Company shall be paid, to the extent then funded, the excess, if any, of the amount payable by the Company in accordance with the Labor Code over the amount, if any, already received under the Plan; pro-rate if the Fund is not sufficient.
- (d) Any funds remaining, **Fourth**, all Members who have not received the full amount of their benefits accrued at date of termination or discontinuance determined using the same formula as in the retirement benefit shall receive such unpaid accrued benefits, to the extent then funded; pro-rata if the Fund is not sufficient.

Any amount remaining after satisfying (a), (b), (c) and (d) above shall revert to the Company.

**Section 3 – Payment of Benefits on Plan Termination**

A Member or former Member who is entitled to a payment under Section 2 hereof shall be entitled to receive such amount forthwith. By agreement amongst the Company, the Trustees and the Member, payment of the amount may be deferred in the case of a Member who is still employed by the Company until the termination of his employment. In such event the amount due to the Member shall be credited with interest at a rate determined by the Trustees on the advice of the Actuary.

**ARTICLE XI**

**NON-REVERSION OF FUND**

The Company shall have no right, title or interest whatsoever in the contributions made by it to the Fund and no part of the Fund shall revert to the Company except that which may remain after satisfaction of all liabilities of the Plan, as a result of overpayment made by the Company.

**ARTICLE XII**

**EFFECT OF SOCIAL LEGISLATION**

**Section 1 – Social Security and Employees’ Compensation**

Whatever benefits may be due to the Member on account of the Social Security and Employees’ Compensation Act existing as of the Effective Date of the Plan shall not be deducted from the benefits granted under this Plan.

**Section 2 – Other Laws, Contracts, Agreements, Government Awards, Rules and Regulations**

Except as otherwise provided by law, the benefits provided for by this Plan shall, at the discretion of the Company be reduced by, or be used to reduce or offset the amount of, all other benefits, emoluments, contributions or other payments that the Company may be required to pay to any person arising out of the termination of the employment of a Member for any reason (including death), by virtue of any present or future contracts, agreements, awards, legislation, or lawful order of competent authority including collective bargaining agreements, Labor Code or any similar legislation thereof.

**Section 3 -- Minimum Retirement Benefits Under Republic Act 7541**

A Member, who is qualified to receive retirement benefits under Republic Act 7641, or any similar future law amending or superseding it, providing for a minimum retirement benefit, shall not receive a benefit under this Plan lower than the benefit provided by Law. In no case, however, shall the Member be

entitled to more than one benefit whether granted by any retirement law, other laws, agreement, contracts, or this Plan as provided under Sections 1 and 2 of this Article.

### **ARTICLE XIII**

#### **BUREAU OF INTERNAL REVENUE**

The Rules have been designed to meet the requirements of tax laws and Bureau of Internal Revenue regulations for a tax-qualified retirement plan. The Company reserves the right to amend any provision of the Plan in order that the Plan shall maintain its tax-qualified status in accordance with present and future BIR regulations or otherwise to secure the most favorable tax treatment of contributions to, benefits from, and income of the Fund.

In case the benefits payable under the Plan are subject to tax, the Trustees shall, if required by the relevant legislation or regulations, deduct from the benefits the corresponding withholding tax.

### **ARTICLE XIV**

#### **MISCELLANEOUS PROVISIONS**

##### **Section 1 – Non-Transferability of Benefits**

No benefits payable to or in respect of a Member under the provisions hereof shall be subject in any manner to anticipation, alienation, transfer, assignment, pledge or encumbrance; nor shall any such benefits be in any manner liable for or subject to the debts or liabilities of the Member except as may specifically be provided by Law.

##### **Section 2 – Rights of Members**

Nothing herein contained shall be deemed to give any Member the right to be retained in the service of the Company or to interfere with the right of the Company to discharge such Member at any time, nor shall it give the Company the right to require a Member to remain in its service, nor shall it interfere with the Member's right to terminate his service at any time.

##### **Section 3 – Fluctuations in Currency**

Article 1250 of the Civil Code of the Philippines (Republic Act No. 386), which provides that "In case an extraordinary inflation or deflation of the currency stipulated should supervene, the value of the currency, at the time of the establishment of the obligation shall be the basis of payment unless there is an agreement to the contrary" shall not apply to any of the payments made or to be made under the provisions of this Plan.

**Section 4 – Entitlements Derived from Rules**

No Member shall have any vested rights under the Plan except to the extent that such rights may accrue to him upon compliance with all the conditions and requirements established by the Rules of the Plan for receipt of benefits herein.

**Section 5 – Recoupment of Direct Payment by Company**

In the event that the Company makes a payment from its own funds of any benefit or part thereof to or in respect of a Member under these Rules or in the event that the Company makes any other payment from its own funds of any other amount properly chargeable under these Rules or the Trust Agreement to the Fund then the Company shall be entitled to be reimbursed for such payment from the Fund.

**Section 6 – Transfer of Benefits to or from Plan**

In the event that a Member who joins the Plan has been a member of another retirement plan and such other plan agrees to transfer to the Fund assets representing the Member's benefit in such other plan, then the Trustees with the consent of the Company, may accept such assets into the Fund. The benefits which the Member would otherwise receive under these Rules shall therefrom be varied in such form as the Company, the Trustees and the Member shall agree, after taking the advice of the Actuary.

Where a Member becomes entitled to a benefit from the Plan, the Trustees may, at the request of the Member and with the consent of the Company, authorize the Trustees to pay such benefit directly to the trustees of another plan of which the Member is or is about to become a member instead of paying it to the Member directly.

If a Member ceases to be a Member of this Plan and becomes or is about to become a member of another retirement plan, being a retirement plan nominated and approved by the Company, the Trustees shall, at the request of the Company and the Member, transfer to the trustees of such other retirement plan the amount certified by the Actuary as representing the value of the Member's accrued benefits in the Fund.

**Section 7 – Forfeitures**

All amounts representing forfeitures of Plan credits from any source, including those arising from termination of employment, shall remain in the Fund and shall be used to reduce future Company contributions to the Fund. No such amount shall be applied to increase the benefits of any Member beyond what he would otherwise receive pursuant to these Rules.

**Section 8 – Applicable Laws**

The laws of the Republic of the Philippines shall govern in resolving any questions under the Plan.

APPROVED:

## **FINAL IAA GUIDELINES OF ACTUARIAL PRACTICE FOR SOCIAL SECURITY PROGRAMS**

*Adopted by Council of the International Actuarial Association (IAA)  
October 21, 2002 - Effective January 1, 2003*

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*Editor's Note:* This material is being included in the ASP Member's Manual for reference only. As of time of printing, the Board of Governors is in the process of reviewing this set of guidelines for adoption.

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### **A. INTRODUCTION**

Many Social Security Programs (SSP) face major financial challenges in planning for the future due, among other things, to the effects of changing demographic structures over time. Important political decisions are being planned, considered and/or made in order to meet these challenges. In many cases, the main concern is future long-term costs. Therefore the need arises to perform financial projections and analyses of SSPs. This was acknowledged also as early as 1952 in Article 71 (3) of the Social Security (Minimum Standards) Convention, No. 102 of the International Labour Organisation (ILO).

Actuaries possess significant expertise in preparing long-term financial projections and therefore have an important role carrying out analyses of SSPs. Accordingly it is vital that all demographic and economic analyses carried out by actuaries provide reasonable projections of long-term future costs and financial impact on which those important decisions can be based.

In many countries, actuarial professional bodies set professional standards and guidelines of actuarial practice for insurance and pension programs, but generally they do not apply to SSPs. Actuarial work for SSPs is also carried out in many countries where the profession is not well developed and no standards of practice exist. The need for guidelines of actuarial practice in this area has also been identified by the International Social Security Association (ISSA) and the ILO. These IAA Guidelines of Practice were established to fill the gap and aim at ensuring that all actuaries involved in this type of work provide reliable financial evaluations.

Actuaries should take into account sound actuarial principles and actuarial standards set by any actuarial associations to which they belong. However, these Guidelines shall prevail only to the extent that they complement and are not in conflict with local requirements in the country concerned, including provisions in the social security legislation specifically referring to actuarial reviews of the SSP. Compliance with these Guidelines by practitioners should enable the users of such actuarial work to have confidence in the professionalism, objectivity and scientific rigour of actuaries. These Guidelines are also intended to promote the development of consistent actuarial practice throughout the world.

While these Guidelines are not binding on actuaries, all actuaries engaged in work of this nature are recommended to adopt them. The Guidelines will also provide a suitable framework for other experts working in this field unless local actuarial standards or guidelines apply.

These Guidelines become effective on January 1, 2003.

## **B. SCOPE**

### **1. Type of program**

These Guidelines cover SSPs having the following attributes:

- (a) Prescribed by legislation.
- (b) Covering a defined wide population, generally on a compulsory or automatic coverage basis.
- (c) The benefits provided by the program are generally payable in respect of one or more of the following: old age, retirement, death, disability, invalidity, survivorship, health, sickness, maternity, unemployment, work-related injuries.

These Guidelines apply to the above-mentioned programs irrespective of the manner in which they are financed.

Moreover, these Guidelines may also be appropriate for use, if not otherwise directed, by actuaries responsible for evaluations of public pension programs specifically sponsored by a government or a quasi-governmental organization as an employer for its employees, as well as for social security programs which are in accordance with the spirit of the scope of these Guidelines but are not covered by the precise wording.

### **2. Type of actuarial work**

These Guidelines cover actuarial work including:

- Actuarial reports on the projected financial status of an SSP or equivalent reports
- Statements of opinion, papers or presentations on SSP policy matters, such as the adequacy of contributions and/or benefits relating to the existing provisions, or proposals for changes therein, or establishment of a new scheme.

When the SSP is operated by a separate entity, e.g. by an insurance company or a workers compensation board, these Guidelines do not apply to actuarial work related to the financial reporting of that entity, the calculation of its liabilities for year end or to the calculation of its premiums or rates for the immediately following fiscal periods or other similar work.

## **C. PRINCIPLES OF ACTUARIAL PRACTICE**

In producing actuarial work with respect to SSPs the actuary should comply with the following principles:

### **1. Scientific rigour**

The actuary should ensure that the methodology used for the long-term financial projections is based on actuarial principles. The actuary should comply with any general or specific professional guidance that may apply in the relevant circumstances. The actuary should also ensure that the calculations accurately reflect the methods and assumptions adopted. In this context, the actuary should indicate in the report that assumptions, though reasonably determined, are not predictions and that eventual differences between future experience and the report's assumptions will be analysed and taken into account in subsequent reports.

## **2. Objectivity**

If the determination of assumptions used for demographic and financial projections is part of the actuary's mandate, he/she should ensure that they are determined without inappropriate political or external influences. If the actuary is not mandated to determine the assumptions but they are set by another entity, and whenever external work is relied upon in the determination of assumptions, the actuary should state the origins of the assumptions and, when needed to give a fair view of the SSP, show a sensitivity analysis of the impact of alternative assumptions.

## **3. Transparency, explicitness, simplicity and consistency of the information supplied in the report.**

When preparing a report, a paper or a presentation the actuary should aim to communicate as clearly as possible, having regard to the various audiences to whom it is addressed and the different stakeholders who will place reliance on the results. The actuary is accordingly recommended to include in the report an executive summary written in plain language, describing the purpose and the main findings of the report.

## **D. INFORMATION TO BE INCLUDED IN ACTUARIAL REPORTS**

Actuarial reports on SSPs should include or make reference to all relevant and material information taking into account the purpose of the report and to whom it is addressed. The content of an actuarial report varies depending upon the nature of the actuarial work involved. Therefore the detailed lists of information in this chapter are only exemplary. The following general list applies more specifically to reports on the projected financial status of an SSP or equivalent reports.

### **1. Executive Summary**

- (a) Purpose of the report
- (b) Identification of the program
- (c) Identification of key assumptions
- (d) Main results of financial projections
- (e) Main conclusions

### **2. Introduction**

- (a) To whom the report is addressed
- (b) Identification of the SSP under review
- (c) The purpose of the report, including a reminder that projections are dependent upon the underlying data, methodology and assumptions.
- (d) The starting and ending dates of the projection period.
- (e) Reference to the relevant preceding reports.
- (f) Contemplated date of next report.

### 3. Description of the provisions of the SSP concerned

Financial projections of an SSP depend, *inter alia*, on the provisions of the program. Written reports should accordingly include a description of the provisions of the program that are materially relevant to the projections, e.g. coverage, financing, benefits.

### 4. Data

The actuary should endeavour to obtain reliable and sufficiently complete data materially relevant to the actuarial work, such as the:

- Demographic experience of the program and the country.
- Economic experience of the program and the country, such as contributions, benefits, investment earnings and assets if any.
- Number of contributors and beneficiaries of the program.
- Payroll or exposure and loss information by workers' compensation classification or employment class.

The actuary is reliant on the accuracy of data and should therefore take steps to assess how the information provided for the evaluation is consistent with relevant information from other sources.

The actuary should describe the relevant data used for the demographic and financial projections and comment on the sufficiency and reliability of the data. If some data are considered insufficient for the purposes of the financial projections, the report should mention the consequential limitations on the results.

The report should indicate the three main areas in which data was used for the purposes of the financial projections:

- (a) Starting point of the projection period;
- (b) Analysis of past experience as a basis for determining the assumptions used for the financial projections;
- (c) Validation of the projection methodology.

### 5. Assumptions

The assumptions should be chosen according to the purpose of the investigation. Normally for an SSP, assumptions are expected to be determined on:

- (a) A realistic basis, as opposed to a conservative or a liberal basis, so as not to bias the financial projections. Each assumption should be individually realistic.
- (b) An explicit, as opposed to implicit, basis to the extent possible.
- (c) A basis taking into account:
  - Internal consistency, e.g. all assumptions should be mutually consistent by virtue of their correlation or interrelationship.
  - Overall consistency, e.g. the economic and demographic assumptions used should be consistent with the long-term experience and the outlook for the economy.

The actuary should describe in the report the rationale used for the determination of all assumptions used for the projections.

Actuarial reports prepared for SSPs are often concerned with the long-term future and in such cases the assumptions should reflect expected long-term trends rather than giving undue weight to recent experience. However, where appropriate, estimates for the earlier years should take account of short-term trends, phasing in to the longer-term assumptions as necessary.

Given the uncertainty surrounding the assumptions, it may be appropriate for the actuary to consult other professionals with relevant expertise on deciding what assumptions to make about the future.

Where a report is part of a series, and there have been changes in assumptions from the previous report, the actuary should take steps to explain any material impact that changes in assumptions have on the financial projections.

## **6. Methodology**

The methodology employed for the financial projections should be described in a manner that provides sufficient information for an actuary or other person with relevant expertise to assess the results of the report.

## **7. Results**

The actuarial report should include all results of the demographic and financial projections that are relevant to the purpose of the report and to whom it is addressed. The actuary should present the results in a form that is consistent with the specific terms of reference of the evaluation or review and having regard to the nature of the SSP and the financing methods under which it is operating, particularly when these are laid down in the social security legislation.

The following model framework for the projection results to be included in the report is presented, it being understood that adjustments may need to be made to the framework to take into account the nature of the particular report. Most of the results would normally be found in either of the following two areas of the report:

### **Sections on data, methodology and assumptions**

- (a) Population by age groups and sex and in total
- (b) Dependency ratios
- (c) Employment earnings by age groups and sex, and averages
- (d) Contributory earnings by age groups and sex, and averages
- (e) Pensionable earnings by age groups and sex, and averages
- (f) Covered payroll and workforce by sector of economic activity

### **Section on cash flow financial projections**

- (g) Contribution rate
- (h) Pay-as-you-go-rate
- (i) Contributions
- (j) Investment earnings
- (k) Other income
- (l) Total income

- (m) Benefits
- (n) Administrative expenses
- (o) Total expenditures
- (p) Assets

The results should also make clear whether and to what extent expenditure other than benefits has been included and this expenditure should also be taken into account in the statements about adequacy of contributions. Irrespective of the financing method, the results shown should include a summary of the income, expenditure and assets of the program by calendar and/or fiscal year, or by other suitable intervals, in respect of both the past experience of the program and the projection period. The results should be shown as real values and, when needed, also as nominal values, or the effect of inflation should be shown in some other appropriate way. Alternatively or in addition it may be appropriate to show the results in relation to some volume measure or the change in it.

## **8. Analysis of projection results**

Besides the presentation of the financial projections discussed in the previous subsection, the report should also present an analysis of those results along the following lines:

- (a) Sensitivity analyses, showing the effects on the main projection results of variations in key assumptions, should be presented, in order to provide an indication of the degree to which the financial projections are affected by each assumption. The corresponding auxiliary results can also serve as a basis for deriving a reasonable approximation of the projected effect of changing in the values of one or more of the key assumptions.
- (b) Reconciliation with the previous report should be made and explanations of significant changes in results should be included in the report.
- (c) Explanations of the pattern of financial projections over the years (ageing of the population, maturing of the program, recent changes in the program financing or benefit provisions, etc.) and the implications thereof.
- (d) Effect, if material, on the financial projections of events subsequent to the beginning of the projection period.

## **9. Conclusions**

The actuary may include remarks beyond those listed above but should bear in mind that the main objective of an actuarial report is normally limited to the presentation of the actuary's estimate of the costs and projected financial status of the existing program and/or proposed changes therein. It is important to ensure that the readers of the report will have a sound understanding of the future financial prospects for the SSP concerned, taking into account the inevitable uncertainties in making projections. In this connection, the report should provide an indication of the eroding effect of inflation on the real value of benefits for plans that do not provide full benefit protection against inflation.

## **10. Attestations**

In the report, the actuary should provide an opinion regarding the:

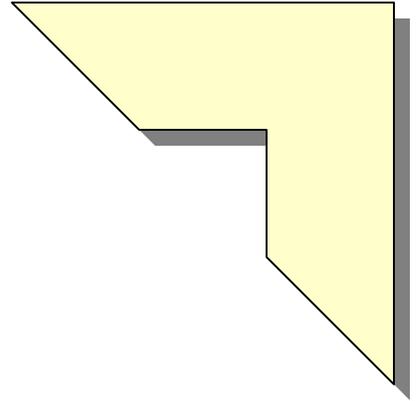
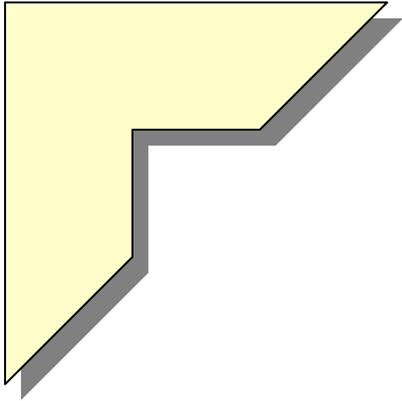
- Sufficiency and reliability of data.

- Reasonableness of assumptions.
- Appropriateness of the methodology and its consistency with sound actuarial principles
- Report's compliance with, and departures from, any local standards and guidelines and the IAA Guidelines of Actuarial Practice.

Where specified in the terms of reference of the evaluation or review, or in the legislative requirement for an actuarial report, the actuary should provide any opinion required on the financial soundness or balance of the SSP, on the adequacy or otherwise of contributions or on the necessary future level of contributions.

The report should also include a reminder that the results of the evaluation are based on assumptions concerning uncertain future events and outcomes and that the eventual experience will most likely differ, possibly materially, from that indicated in the projections.

#### **11. Actuary's Name, Signature, Position Held and Date**



## **SECTION IV: MEMBERSHIP**

Qualifications for ASP Membership

Procedure for Admission of Affiliates, Associates and Fellows

Guidelines for Retention of Membership

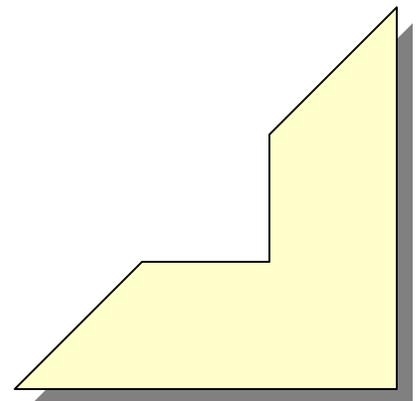
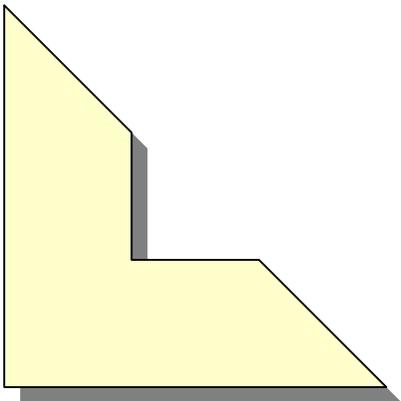
Termination of Membership

Reinstatement Guidelines

Membership Dues

Official List of Members 2008

Service Awardees



## **QUALIFICATIONS FOR MEMBERSHIP**

(Effective July, 1992)

### **A. FELLOW**

Any individual, at least 21 years of age, may become a Fellow of the Society provided:

- He/she is nominated by two Fellows of the Society in good standing;
- He/she is the holder of a university degree requiring at least 24 units of actuarial-related subjects;
- He/she has worked in the Philippines in the actuarial field for at least one year;
- He/she has completed the Fellowship examination requirements prescribed by the ASP;
- He/she has undergone the Fellowship Admission Session conducted by the Professional Standards and Review Council of the ASP; and
- He/she has complied with the procedures for admission as required by the ASP.

### **B. ASSOCIATE**

Any individual, at least 18 years of age, may become an Associate of the Society, provided:

- He/she is nominated by two Fellows of the Society in good standing;
- He/she has successfully completed at the Associateship examination requirements prescribed by the ASP; and
- He/she has complied with the procedures for admission as required by the ASP.

### **C. AFFILIATE**

Any individual, at least 18 years of age, may become an Affiliate of the Society, provided:

- He/she is nominated by a Fellow or two Associates of the Society in good standing;
- He/she has successfully completed at least one examination prescribed by the ASP; and
- He/she has complied with the procedures for admission as required by the ASP.

## **MEMBERSHIP DUES FOR 2008**

### **Regular Rates:**

<b>Fellow</b>	-	<b>P8,000.00</b>
<b>Associate</b>	-	<b>P5,500.00</b>
<b>Affiliate</b>	-	<b>P4,500.00</b>

1. Any member who is age sixty-five (65) at the beginning of the calendar year shall pay only one-half (1/2) of the regular rate.
2. Any member who is age seventy (7) at the beginning of the calendar year shall be exempt from payment of membership due.
3. Affiliates and Associates who meet the required credit points for the preceding calendar will be entitled to a 25% discount.
4. New members of any classification shall be required to pay the applicable fee for the full calendar year regardless of date of admission.

## **RIGHTS AND PRIVILEGES OF A MEMBER**

### **A. Rights Common to All Members**

The members of the Society have the right to attend, participate in the discussions and present papers at all general meetings, including the Annual Convention. They shall also have the right to participate in all other activities of the Society which are not otherwise limited to specific classes of members.

### **B. Fellows**

A Fellow shall be entitled to exercise the right to vote, be elected into office, make actuarial certifications when qualified, as provided for in the Insurance Code and/or regulations promulgated by the Insurance Commission and any other government agency that requires such certifications.

Only Fellows are authorized to append to their names the initials, F.A.S.P. indicating - Fellow of the Actuarial Society of the Philippines.

### **C. Associates**

Associates may identify themselves or be identified as Associates of the Actuarial Society of the Philippines in any communication where there is certainty that intended recipient of the communication will be fully cognizant of the qualifications and limitations of an Associate of the Society. Under the same conditions, Associates may append to their names the designation A.A.S.P. or the title Associate, Actuarial Society of the Philippines.

An Associate is not entitled to vote.

### **C. Affiliate and Honorary Members**

An Affiliate or Honorary Member is not entitled to vote.

## **PROCEDURE FOR ADMISSION OF AFFILIATES, ASSOCIATES AND FELLOWS**

(Amended 2004)

- A. An individual seeking admittance into the ASP shall:
1. Submit to the ASP Secretariat the following:
    - a) Personal Data Sheet (Form 1)
    - b) Application for Membership (Form 2)
    - c) 2" x 2" ID photo taken not more than 6 months prior to application

Forms may be downloaded from [www.actuary.org.ph](http://www.actuary.org.ph) or requested from the ASP Secretariat.
  2. Make himself available to the ASP Membership Committee for interview.
- B. After checking for completeness, the ASP Secretariat forwards the application to the ASP Membership Committee. The ASP Membership Committee shall commence processing the application and do the following:
1. Conduct a thorough investigation.
  2. Determine that the applicant is of good character.
  3. Ascertain that the applicant has reached the required age.
  4. Ascertain that the applicant has earned the minimum required units of actuarially-related subjects.
  5. Ascertain that the applicant has passed the minimum required examinations.
  6. Ascertain that the applicant has met the minimum number of years of involvement in actuarial work in the Philippines.
  7. Ascertain that the applicant has completed all the Admission Requirements prescribed by the Board.
- C. Action by the Membership Committee shall be forwarded to the Board of Governors.
- D. The Membership Committee shall:
1. If the application is rejected, notify applicant in writing and the reason for rejection.
  2. If application is approved by the Board,
    - a. send out Membership Banns to request information, favorable or otherwise, on the applicant from the Members of the Society.
    - b. If no adverse information were received, endorse the application to the General Membership in its regular meeting for action.
- E. If the General Membership approves, the applicant shall:
1. Pay the required membership dues.
  2. Take the membership oath during one of the general membership meetings.
- F. For new Fellows, the ASP Secretariat shall issue the Certificate of Fellowship. The date of Membership shall be the later of the date of ratification by the General Membership or the date of payment of applicable membership fee.

## **GUIDELINES FOR RETENTION OF MEMBERSHIP**

(Amended 2004)

To retain membership in the Society, the following conditions must be met:

1. He must be prompt in the payment of membership dues and/or other fees/assessments.
2. He shall conduct himself in accordance with the ASP Code of Conduct.
3. He must abide by the rules and regulations of ASP.
4. A member retains his membership while on leave of absence, provide:
  - a) such leave of absence is so approved by the Board of Governors upon the endorsement of the Membership Committee; and
  - b) conditions (1), (2) and (3) are met.Leave of absence is allowed only for members who will take a temporary foreign assignment or who will study abroad or other reasons acceptable to the Board of Governors.

## **TERMINATION OF MEMBERSHIP**

(Amended 2004)

Membership in the Society shall cease:

1. By resignation of the member filed in writing with the Membership Committee and approved by the Board of Governors;
2. By death of the member; or
3. By termination by the Board of Governors for:
  - a) delinquency in the payment of membership dues and/or other fees/assessments within the prescribed period.
  - b) failure to conduct himself in accordance with the ASP Code of Conduct.
  - c) commission of a criminal act.

## **REINSTATEMENT GUIDELINES**

(Amended October 1998)

A. A former member seeking readmittance into the ASP shall:

1. Submit to the ASP Secretariat the following:
  - a) Personal Data Sheet (Form 1)
  - b) Application for Membership (Form 2)
  - c) 2" x 2" ID photo taken not more than 6 months prior to application

(Forms may be downloaded from [www.actuary.org.ph](http://www.actuary.org.ph) or requested from the ASP Secretariat.)

2. Make himself available to the ASP Membership Committee for interview.

- B. The Membership Committee shall conduct a review of the member's records to determine:
1. circumstances of the member's non-renewal of membership;
  2. any unpaid dues and/or assessments/fees; and
  3. if all the minimum requirements stipulated in the by-laws and prescribed by the Board of Governors are met.
- C. The findings and recommendations of the Membership Committee shall be presented to the Board of Governors for action.
- If, in the past, a former member has committed any criminal act or any act violating the Code of Conduct, the Board of Governors shall refer to his application to the PSRC for evaluation.
- D. The Board shall act on the case and the Membership Committee shall:
1. If the application for readmission is rejected, notify the applicant in writing and the reason for rejection.
  2. If application is approved by the Board, notify the applicant and request the applicant to pay the required membership dues and reinstatement fees.
- E. The date of reinstatement shall be the later of the date of approval of the Board of Governors or the date of payment of reinstatement and applicable membership fee.

## OFFICIAL LIST OF MEMBERS FOR 2008

### FELLOWS

	<b>Name</b>	<b>Company</b>
1	Abada, Romeo	Transamerica
2	Africa, Isabelo	UCPB General Insurance Co., Inc.
3	Arada, Sabina Rachel	N/A
4	Belleza, Ines	N/A
5	Bernarte, Janice D.	Citibank N.A.
6	Cabading, Maria Carmela	Watson Wyatt Philippines
7	Cabral, Purificacion	Philam Plans, Inc.
8	Carabeo, Romeo	Watson Wyatt Jakarta
9	Carada, Evelyn	Fortune Life Insurance Company, Inc.
10	Careng, Damaso Niño Jr.	Insular Life Assurance Company, Ltd.
11	Centeno, Reynaldo	Philamlife
12	Chan, Charline D.	Philamlife
13	Cheng, Jasper Hendrik	Philippine AXA Life
14	Crisostomo, Sherlee L	N/A
15	Darvin, Peter Godfrey	PNB Life
16	Darvin, Tisha	Consultant
17	De Castro, Isagani	Present Value Managers, Inc.
18	de la Cruz, Conrado	Watson Wyatt Philippines
19	de la Cruz, Joanne	Great Life Financial
20	de la Cruz, Mona Lisa	Insular Life Assurance Company, Ltd.
21	de la Paz, Panfilo	Manila Bankers Life Insurance
22	del Rosario, Coralyn	N/A
23	Dumlao, Aireen	N/A
24	Elicaño, Maria Edita	Insular Life Assurance Company, Ltd.
25	Escobillo, Evangeline	N/A
26	Fadri, Jocelyn	Cocolife
27	Fadri, Lyndon	Feliciano F. Miravite, Inc.
28	Franco, Ma. Elisa	BPI Family Bank
29	Garcia, Alfonso Jr.	N/A
30	Garde, Lope Jose Jr.	PRU Life U.K.
31	Gatcheco, Reynaldo Jr.	Philam Plans, Inc.
32	Gicaro, Dolores	N/A
33	Herrera, Henry Joseph	Sun Life of Canada (Phils) Inc.
34	Herrera, Ma. Elena	Solutions, Incorporated
35	Josef, Aida	National Life Insurance Company
36	Juan, Mabini	Actuarial Advisers, Inc.
37	Ledesma, Edna	Actuarial Advisers, Inc.

	<b>Name</b>	<b>Company</b>
38	Lim, Maria Victoria	Philamlife
39	Manalang, Orlando	Institutional Synergy, Inc.
40	Manguni, Seraline	I-Care
41	Maranan, Ma. Sharon	Generali Pilipinas Life
42	Martin, Maria Asuncion	Ayala Life Assurance, Inc. Assurance, Inc.
43	Mercado, Daniel Jr.	N/A
44	Mercado, Mariano Jr.	N/A
45	Naz, Ma. Composita	Pioneer Life Inc.
46	Nevado, Dulce	Sunlife Financial Plans, Inc
47	Ocampo, Jesselyn	Philam Equitable Life Assurance Co.
48	Ortega, Francis	PRU Life U.K.
49	Pang, Maria Sachiko	Sun Life of Canada (Phils) Inc.
50	Perlado, Joel Claro	Watson Wyatt Philippines
51	Racela, Froilan Emilio	Grepalife
52	Reyes, Ernesto	Consultant
53	Salas, Gerardo	Blue Cross
54	San Jose, Ronaldo	ING Life Insurance
55	Santiago, Jaime	First Guarantee Life
56	Sison, Ma. Lourdes Lilia	AGLS Actuarial Specialists, Inc.
57	Suarez, Katerina	Philamlife
58	Tan, Leonardo Benigno	Present Value Managers
59	Tanjuakio, Victor	Maxicare Healthcare Corp.
60	Velasquez, Rina Isabel	Manulife
61	Ventura, Lucia Chona	Pioneer Life Inc.
62	Zalamea, Enrique Jr.	EMZalamea Actuarial Services

## **ASSOCIATES**

	<b>Name</b>	<b>Company</b>
1	Agdeppa, Ma. Kathrina Jamina	Grepalife Insurance
2	Andal, Daureen Ava	Sunlife of Canada
3	Ang, Jose Eduardo	Philippine AXA Life
4	Aspiras, Magnolia	PRU Life U.K.
5	Bautista, Jericho	Philippine AXA Life
6	Belleza, Rex	Philam Care Health Systems Inc.
7	Beltran, Maribeth	Sunlife of Canada
8	Boglosa, Maria Socorro	Sunlife of Canada
9	Capule, Sharon	Deutsche Bank
10	Capulong, Rizaldy	SSS

	<b>Name</b>	<b>Company</b>
11	Careng, Edna	Insular Life Assurance Company, Ltd.
12	Catral, Eduard Jeremiah	Watson Wyatt AP SSC Philippines, Inc.
13	Cinco, Eleonora	SSS
14	Dayag, Marie Grace	Watson Wyatt AP SSC Philippines, Inc.
15	De Dios, Renato	Manulife
16	De Guzman, Armando Jr.	Manulife
17	Dela Cruz, Aries	Manulife
18	Dela Rosa, Eric	Watson Wyatt AP SSC Philippines, Inc.
19	Firmeza, Andrea	Pioneer Life Inc.
20	Francisco, Geronimo	Fortune Care
21	Guington, Catalino Marius	St. Peter's Life
22	Ingco, Aguedo	AMI Risk Consultants Inc.
23	Itum, Juvelene	Manulife
24	Lim, Mariette Ann	Ayala Life Assurance, Inc. Insurance
25	Manaloto, Soraya	Watson Wyatt
26	Mandal, Peter	Watson Wyatt AP SSC Philippines, Inc.
27	Maraño, Cecilia	Prulife U.K
28	Mariano, Jason Joseph E.	Ayala Life Assurance, Inc.
29	Mirandilla, Simon James	Cocolife
30	Monte, Rhodora	Sunlife of Canada
31	Nazal, Theresa Marie	Sunlife of Canada
32	Ng, Stephenson O	Philamlife & General Assurance
33	Nuqui, Honesto Franz Maximillian	Manulife
34	Ong, Annie-Lyn T.	Sunlife of Canada
35	Ongkeko, George Jr.	Feliciano Miravite, Inc.
36	Parrocha, Gilbert M.	Insular Life Assurance Company, Ltd.
37	Porta, Marie Grace	Generali Pilipinas Life
38	Ramos, Emelyn	Sony Life
39	Ramos, Ronaldo	Consultant
40	Ramos, Sherlyn	Manulife
41	Ricablanca, Christian Dennis	Manulife
42	Sadorra, Erwin	Watson Wyatt
43	Sentillas, Kerwin Ray	Philamlife
44	Singzon, Pablo III	Philamlife
45	Takiang, Rodirick	Generali Pilipinas Life
46	Tan, Susan	Manulife
47	Tenorio, Sherman	GSIS
48	Testa, Consolacion	Sunlife of Canada
49	Ureta, Rachelle	Philippine AXA Life
50	Uy, Garen	Sunlife of Canada
51	Valeroso, Elysis	Danvil Plans
52	Vasquez, Estela Lourdes	Ayala Life Assurance, Inc. Insurance
53	Viaje, Abigail	Sunlife of Canada

	<b>Name</b>	<b>Company</b>
54	Villahermosa, Glolibeth	PRU Life U.K.
55	Villano, Asuncion Loreto	Caritas Shield Inc.
56	Virola, Romulo	National Statistical Coordination Board
57	Young, Christopher	Philippine AXA Life

## **AFFILIATES**

	<b>Name</b>	<b>Company</b>
1	Abanil, Kristin Mae H.	Standard Insurance Co., Inc.
2	Agbay, Gerald Sam	Arm Forces & Police Mutual Benefits, Inc.
3	Alejo, Dennis	Sun Life Financial
4	Alvarez, Joan Jett	Watson Wyatt
5	Amosco, Adolfo	Philamlife
6	Aranas, Jonnaluz	Generali Pilipinas
7	Arboleda, Jose Philip	Watson Wyatt AP SSC
8	Asuncion, Rino Antonio	Paramount Life
9	Bala, Angelito	Asian Actuaries, Inc.
10	Bautista, Benedicto	Philippine AXA Life
11	Bautista, Lorna	Manufacturers Life Insurance Company
12	Benedito, Samantha Mae	PNB Life
13	Benitez, Lorence	Grepalife Insurance
14	Bersamina, Marie Cielo	Watson Wyatt AP SSC AP SSC
15	Billones, James Eric	First Guarantee Life
16	Bonus, Catherine	N/A
17	Burayag, Aldrin	Generali Pilipinas
18	Buscar, Jeffen	Philippine AXA Life
19	Caguiling, Marco Polo	Watson Wyatt AP SSC
20	Calixterio, Alan Ryan	Watson Wyatt AP SSC
21	Caringal, Efren Jr	Knights of Columbus
22	Carlos, Jose Paolo	Ayala Life Assurance, Inc.
23	Casimero, Eli	Globe Telecom
24	Catulin, Sheryll Karen	Watson Wyatt AP SSC
25	Chua, Ryan	Watson Wyatt
26	Cu, Jennylyn	Watson Wyatt
27	Cuevas, Leonard	Ayala Life
28	Daran, Francis Gregory	Philamlife
29	Dayco, Maria Fe S	Government Service Insurance System
30	De Joya, Cheryl Anne	Philamlife & General Assurance
31	De Leon, Ivan	Philippine AXA Life
32	Del Valle, Janice C.	Ayala Life Assurance, Inc. Insurance

	<b>Name</b>	<b>Company</b>
33	Dizon, Gerald C.	Pioneer Life Inc.
34	Domingo, Celine Paula	Pioneer Life Inc.
35	Endozo, Ma. Floraida	Nippon Life Philippines
36	Fong, Allan L.	National Reinsurance
37	Garcia, Don	Watson Wyatt AP SSC
38	Gomez, Jhoana	Asian Life & General
39	Hernaes, Edizon Rey	Watson Wyatt
40	Herrera, Sheila Marie	Watson Wyatt AP SSC
41	Honrado, Christine	Pru Life U.K.
42	Karo , Maria Perpetua Palmyra	Insular Life Assurance Company, Ltd.
43	Keng, John Ian	Pru Life U.K.
44	Lautchang, Johnier Lindley	Cocoplans, Inc.
45	Llave, Chirmen	Blue Cross Insurance
46	Lodia, Joanne	Philamlife
47	Macalintal, Maria Melina	Asian Life & General
48	Madamba, Marie Jo	Philam Equitable Life
49	Mancao, Vina Jassen	Ayala Life
50	Marata, Erna C.	Pacific Plans, Inc
51	Marcelo, Oliver	Grepalife Insurance
52	Mariano, Maria Luisa	Ayala Life Assurance, Inc.
53	Marquez, Ser-Emil James	Pru Life U.K.
54	Mascarinas, Efren	Nippon Life Philippines
55	Mayuga, Rhovic	I-Care
56	Mendoza, Donato III	Watson Wyatt AP SSC
57	Mendoza, Marlon	Sun Life Financial
58	Mendoza, Ronald	United Coconut Planters Life
59	Mirandilla, Ronnie	Great Life Financial
60	Moraleda, Abigail S.	Solutions Inc.
61	Moran, Shiela	Insular Life Assurance Company, Ltd.
62	Nepomuceno, Anacleto Jr.	Fortune Life Insurance Co., Inc.
63	Pabico, Jordan	Maxicare Healthcare Corp.
64	Palafox, Lyra	Watson Wyatt AP SSC
65	Palma, Charmaine	Insular Life Assurance Company, Ltd.
66	Pascual, Marie Maylene	Watson Wyatt AP SSC
67	Peralta, Rita Lourdes	Philam Plans, Inc.
68	Perez, Erwin	First Guarantee Life
69	Redor, Lille	Pru Life U.K.
70	Resurreccion, Severina	Government Service Insurance System
71	Reyes, Jocelyn	Insular Life Assurance Company, Ltd.
72	Sales, Jocelyn	Pacific Plans, Inc
73	San Juan, Carlos Pablo	Sun Life Financial
74	Santiago, Victoria Maria	Caritas Shield, Inc.
75	Tabago, Katherine	Pru Life U.K.

	<b>Name</b>	<b>Company</b>
76	Tan, Elizabeth	Ayala Life Assurance, Inc. Insurance
77	Tan, Marie Josephine	Nippon Life Philippines
78	Tanio, Rufino Arvin S. Jr.	Watson Wyatt
79	Ticzon, Marvin	Ayala Life
80	Tingchuy, Ma. Louise B.	Insular Life Assurance Company, Ltd.
81	Tolentino, Gary Nelson	Watson Wyatt
82	Velasco, Maria Katarina	Philamlife
83	Verances, Erlinda	Ayala Life Assurance, Inc. Insurance
84	Yu, Anna Theresa	Solutions Inc.
85	Zafra, Rodrigo	Manufacturers Life Insurance Company

## SERVICE AWARDEES

(Fellows for at least 25 years)

### For 2008

1. Edna Ledesma - Fellow for 30 Years
2. Panfilo Dela Paz – Fellow for 40 Years

### For 2007 (given during the 1<sup>st</sup> Quarterly Meeting, February 20, 2008, BPI Buendia Center)

1. Daniel Mercado Jr. – Fellow for 45 Years
2. Evelyn Carada – Fellow for 30 Years
3. Reynaldo Gatcheco – Fellow for 30 Years
4. Aida Josef – Fellow for 25 Years
5. Isabelo Africa – Fellow for 25 Years



### For 2004 (given during the 45<sup>th</sup> Annual Convention, Nov. 18, 2004, Manila Diamond Hotel):

Fellows for 25 Years:

1. Evangeline C. Escobillo
2. Jaime M. Santiago



### For 2003 (given during the 50<sup>th</sup> Anniversary Party, Oct. 10, 2003, New World Hotel):

Fellows for 25 years or more but less than 30 years:

1. Edna Ledesma
2. Evelyn Carada
3. Reynaldo Gatcheco
4. Alfonso Garcia Jr.
5. Ma. Lourdes Lilia Sison
6. Ernesto Reyes



Fellows for 30 years or more but less than 40 years.

1. Victor Pagua
2. Mabini Juan
3. Milagros Fanega
4. Ligaya Novicio
5. Panfilo de la Paz
6. Ruben de la Paz
7. Amador Madamba
8. Azucena Reyes
9. Enrique Zalamea
10. Leonardo Tan



11. Dolores Gicaro
12. Ines Belleza

Fellows for 40 years or more but less than 50 years.

1. Justino Padiernos
2. Leopoldo Belon
3. Daniel Mercado, Jr
4. Mariano Mercado Jr.
5. Martha Horrigan
6. Isagani de Castro
7. Pedro Sen



Fellows for 50 years or more.

Emeterio C. Roa, Jr

## MEETINGS AND ANNUAL CONVENTIONS

### FOR 2008

- 1<sup>st</sup> Quarterly Meeting**      Guest Speaker : Jonathan L. Ravelas  
Topic : 2008 – The Moment of Truth  
Date : February 20, 2008  
Venue : BPI Buendia Center, Makati City
- 2<sup>nd</sup> Quarterly Meeting**      Guest Speaker : Jaime P. Villegas  
Topic : Risk Management  
Date : May 22, 2008  
Venue : BPI Buendia Center, Makati City
- 3<sup>rd</sup> Quarterly Meeting**      Guest Speaker : Vicente P. Reventar III  
Topic : Quantitative Methods in Risk Management  
Date : August 21, 2008  
Venue : BPI Buendia Center, Makati City
- 49<sup>th</sup> Annual Convention**      Theme : Riskploration  
Guest of Honor and  
Inducting Officer : Oscar S. Moreno  
Governor, Misamis Oriental  
Date : November 13-14, 2008  
Venue : Xavier Sports and Country Club  
Cagayan De Oro City

### FOR 2007

- 1<sup>st</sup> Quarterly Meeting**      Guest Speaker : Honorable Joey Sarte Salceda  
Topic : Medium to Long-Term Economic Outlook for the  
Philippines  
Date : February 13, 2007  
Venue : Makati Sports Club, Makati City
- 2<sup>nd</sup> Quarterly Meeting**      Guest Speaker : Tita Puangco  
Topic : Mentoring  
Date : June 4, 2007  
Venue : Insular Life Multi-Purpose Hall, Makati City
- 3<sup>rd</sup> Quarterly Meeting**      Guest Speaker : Professor Ma. Nieves Confessor  
Topic : Negotiations  
Date : August 16, 2007  
Venue : Makati Sports Club, Makati City
- 48<sup>th</sup> Annual Convention**      Theme : The Actuary: Steering through the Waves of Change  
Guest of Honor and  
Inducting Officer : Atty. Alexander L. Lacson  
Date : November 15-16, 2007  
Venue : Costabella Tropical Beach Resort  
Mactan., Cebu

## **FOR 2006**

**1<sup>st</sup> Quarterly Meeting**      Guest Speaker : Professor Francisco Roman Jr.  
Topic : Governance Challenge: In the Eye of the Storm  
Date : February 23, 2006  
Venue : AIM Conference Center, Makati City

**2<sup>nd</sup> Quarterly Meeting**      Guest Speakers : PICPA Representatives  
Topic : Implementation of IAS 32 and 39  
Date : June 21, 2006  
Venue : AIM Conference Center, Makati City

**3<sup>rd</sup> Quarterly Meeting**      Guest Speaker : Professor Jesus Gallegos Jr.  
Topic : Ethical Leadership  
Date : September 22, 2006  
Venue : Makati Sports Club, Makati City

**47<sup>th</sup> Annual Convention**      Theme : The Governance Challenge: The Professional  
Responsibility of the Actuary  
Guest of Honor and  
Inducting Officer : Dr. Romulo A. Virola, AASP, ASA  
Secretary General, NSCB  
Date : November 16-17, 2006  
Venue : Legend Hotel  
Puerto Princesa, Palawan

## **FOR 2005**

**1<sup>st</sup> Quarterly Meeting**      Guest Speaker : Dr. Marie Redina M. Victoria  
Topic : Mathematical Model for the Philippine Intercompany  
Mortality Table  
Date : March 9, 2005  
Venue : PhilAm Tower, Makati City

**2<sup>nd</sup> Quarterly Meeting**      Guest Speaker : Wilfred Songkengpo  
Topic : Basic Investment Guidelines Essential to the Insurance  
Industry  
Date : June 20, 2005  
Venue : PhilAm Tower, Makati City

**3<sup>rd</sup> Quarterly Meeting**      Guest Speaker : Estrella V. Domingo  
Topic : Discovering Statistics via Some Selected Social  
Economic Indicators  
Date : September 19, 2005  
Venue : PhilAm Tower, Makati City

**46<sup>th</sup> Annual Convention**      Theme : Building on Strong Foundations  
Guest of Honor and  
Inducting Officer : Insurance Commissioner Evangeline Escobillo  
Date : November 17-18, 2005  
Venue : Metrocentre Hotel & Convention Center  
Tagbilaran City, Bohol



**IAA-International Promotion and Education Fund Meeting**

Date : October 10-12, 2003  
 Venue : AIM Conference Center, Makati



**50<sup>th</sup> Anniversary Celebration:** Guests of Honor: Sen. Ramon Magsaysay Jr.  
 James McGinnitie (IAA President)

Date : October 10, 2003  
 Venue : New World Renaissance Hotel, Makati City

**4<sup>th</sup> Quarterly Meeting** Guest of Honor and Inducting Officer: Sen. Loren Legarda

Date : November 18, 2003  
 Venue : New World Renaissance Hotel, Makati City

**FOR 2002:****1<sup>st</sup> Quarterly Meeting**

Guest Speaker: Mr. Jesus D. Quiazon,  
 President, Association of Health Maintenance  
 Organizations of the Phils. (AHMOPHI)  
 President and CEO,  
 PhilamCare Health Systems Inc.  
 Date : February 28, 2002  
 Venue : Makati Sports Club, Makati City

**2<sup>nd</sup> Quarterly Meeting**

Guest Speaker: Atty, Juan Miguel M. Vazquez  
 President, Philippine Federation of Pre-Need  
 Companies, Inc.  
 President and CEO, Permanent Plans  
 Date : May 23, 2002  
 Venue : RCBC Plaza, Makati City

**3<sup>rd</sup> Quarterly Meeting**

Guest Speaker : Dep. Gov. Amando M. Tetangco, Jr.  
 Bangko Sentral ng Pilipinas  
 Date : August 23, 2002  
 Venue : Philamlife Tower Training Center, Makati City

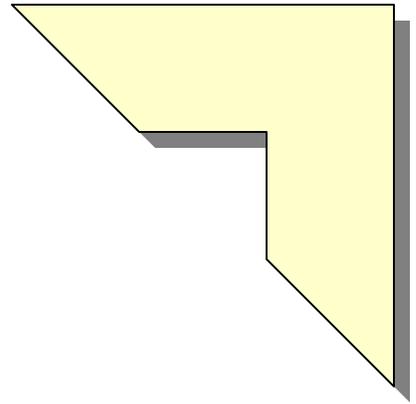
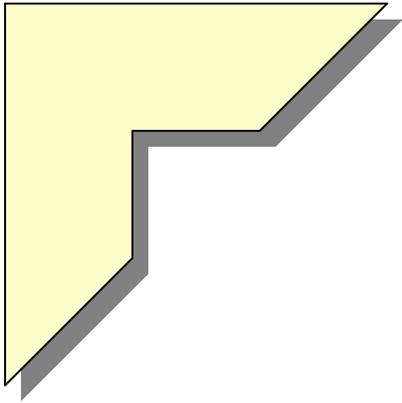
**43<sup>rd</sup> Annual Convention**

Guest of Honor: Hon. Chairperson Lilia R. Baustista  
 Securities and Exchange Commission  
 Inducting Officer: Hon. Dep. Commissioner Vida T. Chiong  
 Insurance Commission  
 Theme : Responding to the Challenges of Rapid Change  
 Date : November 21-23, 2002  
 Venue : Baguio Country Club, Baguio City

**Prior Annual Conventions****42<sup>rd</sup> Annual Convention**

Theme : The Actuary in the New E-economy  
 Date : November 15-17, 2001  
 Venue : Waterfront Hotel, Lahug, Cebu City

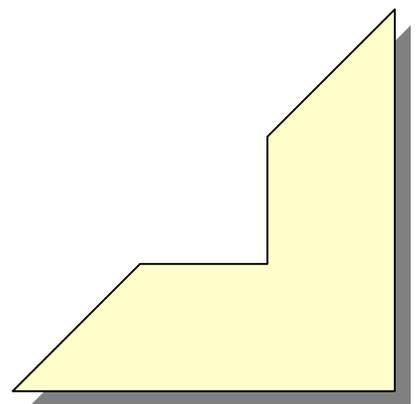
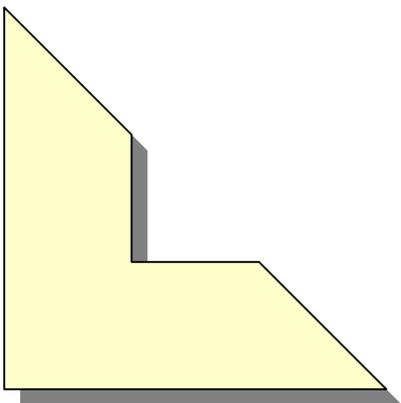
<b>41st Annual Convention</b>	Theme :	Creating Stakeholder Value
	Date :	November 16-18, 2000
	Venue :	Sarabia Manor, Iloilo City
<b>40th Annual Convention</b>	Theme :	The Actuary as a Partner in National Development
	Date :	November 18-20, 1999
	Venue :	Marco Polo Davao, Davao City
<b>39th Annual Convention</b>	Theme :	Linking Actuarial Principles to Corporate Strategies
	Date :	November 19-21, 1998
	Venue :	Punta Baluarte, Batangas
<b>38th Annual Convention</b>	Theme :	The Actuary as a Total Manager
	Date :	November 20-22, 1997
	Venue :	Subic International Hotel, Olongapo City
<b>37th Annual Convention</b>	Theme :	Toward Regional Cooperation
	Date :	November 21-23, 1996
	Venue :	Holiday Inn Resort, Clark Field, Pampanga
<b>36th Annual Convention</b>	Theme :	The Actuary in Asset-Liability Management
	Date :	November 16-18, 1995
	Venue :	Cebu Midtown Hotel, Cebu City
<b>35th Annual Convention</b>	Theme :	The Actuary in Transformation
	Date :	November 17-18, 1994
	Venue :	Banyan Tree Nasugbu Evercrest, Batangas



## SECTION V: EDUCATION

2008 ASP Examinations

Continuing Education Program



## 2008 ASP EXAMINATIONS

(Download the latest catalogue from [www.actuary.org.ph](http://www.actuary.org.ph))

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**Application Form for Examination**

## **I. The Actuarial Society of the Philippines**

### **Mission Statement**

We are the internationally recognized organization of actuarial professionals in the Philippines. We are committed to the standards of our profession, upholding the highest levels of integrity and competence.

As acknowledged experts in assessing risks and measuring their financial outcomes, we take pride in providing technical services to our stakeholders. As responsible members of society, we take a stand on issues that affect the public good.

We are a caring organization that provides a forum for the professional growth, social development and self-regulation of our members. We value mentoring as necessary to strengthen our Society and to continuously upgrade the expertise of our members.

We shall responsibly carry out these affirmations to foster the important role of the Actuarial Society of the Philippines in the larger global community.

### **Principles Underlying the Examination System**

The Actuarial Society of the Philippines administers a series of self-study courses and examinations, in the fields of application of actuarial science, leading to Associateship and Fellowship qualifications. The principles underlying the examination system are as follows:

- a. To provide the actuary with an understanding of fundamental mathematical concepts and how they are applied;
- b. To provide the actuary with an accurate picture of the socio-demographic, political, legal, and economic environments within which financial arrangements operate;
- c. To expose the actuary to a broad range of techniques, their applications and limitations;
- d. To expose the actuary to a broad range of relevant actuarial practice;T
- e. To develop the actuary's sense of inquisitiveness so as to encourage exploration unto areas where traditional methods and practice do not appear to work effectively.

In the administration of the system, it is understood that both the course of readings as well as the manner of administering examinations will be continuously studied and revised, as necessary, in order to incorporate advances in technology and changes in the environment in which the actuary is expected to operate.

### **Requirements for Admission to the Society as an Associate - for those completing Associateship Exams in 2008 until 2018**

- a. Who may be admitted. Any individual, at least 18 years of age, upon nomination by two Fellows of the Society in good standing, may be admitted after completing the Associateship education and examination requirements prescribed by the Board of Governors for 2008 and by majority vote of the Society.
- b. When and how to apply. A candidate planning to seek admission to the Society should submit an Application for admission as Associate to the Membership Committee by upon completion of the education and examination requirements for Associateship. The application form may be obtained from the Office of the Actuarial Society of the Philippines.

Application for admission as an Associate under the 2008 syllabus should be done prior to 2018. After 2018, the applicant should comply with the 2019 syllabus for admission as an Associate.

- c. Associateship Education and Examination Requirements. To qualify for Associateship, the candidate should have completed the following requirements:
- The candidate should have passed Courses P, FM, M and C of the Society of Actuaries (SOA). These examinations should have been accredited by the ASP.
  - The candidate should have satisfied Validation by Educational Experience (VEE) for three topics: Applied Statistics, Corporate Finance and Economics. Details on VEE are provided in Section VIII.
  - The candidate should have attended the Associateship Admission Course given by the ASP. The Associateship Admission Course is described in Section IX.

### **Requirements for Admission to the Society as a Fellow**

- a. Who may be admitted. Any Associate of the Society, at least 21 years of age, upon nomination by two Fellows of the Society in good standing, may be admitted provided:
- He/she is the holder of a university degree requiring at least 24 units of actuarial-related subjects;
  - He/she has worked in the Philippines in the actuarial field for at least one year;
  - He/she has completed the Fellowship education and examination requirements, the Fellowship Admission Session, and any additional requirements prescribed by the Board of Governors. The Fellowship Admission Session is described in Section VI of this catalogue.
- b. When and how to apply. A candidate planning to seek admission as a Fellow of the Society should submit an Application for Admission as Fellow to the Membership Committee upon completion of the examination and other requirements for Fellowship. The Application form may be obtained from the Office of the Actuarial Society of the Philippines. The application for membership is subject to approval by the Board of Governors of the Society and by majority vote of the Society.
- c. Fellowship Examinations. The required course of reading for Fellowship is provided in the section on Course of Reading in this catalogue.

## **II. General Information Regarding Examinations**

### **Associateship Examinations**

SOA Course 1 / Exam P Mathematical Foundations of Actuarial Science / Probability

SOA Course 2 / Exam FM Interest Theory, Economics, and Finance / Financial Mathematics

SOA Course 3 / Exam M Actuarial Models

SOA Course 4 / Exam C Actuarial Modeling / Construction of Actuarial Models

## Fellowship Examinations

Course No.	Topic
Course 1	Development, Pricing And Distribution Of Life Insurance, Preneed And Annuity Products
Course 3	Solvency And Risk Management For Insurance And Preneed Companies, Selection Of Risks, Reinsurance, Law And Taxation Of Insurance And Pre Need Companies
Course 2	Investments And Finance, Valuation Of Assets And Liabilities, Insurance And Pre-Need Accounting
Course 4	Social Insurance, Group Insurance And Health Care Systems And Employee Benefit Plans

### Examinations, Dates, Time, Location

Fellowship examinations will be held at the IIAP Office, 26th/F, Ayala-FGU Life Building on Ayala Avenue, Makati City.

Course No.	Topic	No. of Hours	Date & Time
Course 1	Development, Pricing And Distribution Of Life Insurance, Preneed And Annuity Products	6	June 9 (Mon) 9:00 am –12:00 nn 1:30 pm – 4:30 pm
Course 3	Solvency And Risk Management For Insurance And Preneed Companies, Selection Of Risks, Reinsurance, Law And Taxation Of Insurance And Pre Need Companies	6	June 13 (Fri) 9:00 am –12:00 nn 1:30 pm – 4:30 pm
Course 2	Investments And Finance, Valuation Of Assets And Liabilities, Insurance And Pre-Need Accounting	6	Dec 8 (Mon) 9:00 am –12:00 nn 1:30 pm – 4:30 pm
Course 4	Social Insurance, Group Insurance And Health Care Systems And Employee Benefit Plans	6	Dec 12 (Fri) 9:00 am –12:00 nn 1:30 pm – 4:30 pm

### Accreditation Procedure for Associateship Examinations

#### I. Accreditation for Active Examinee

To qualify as an Active Examinee, the candidate should have an updated transcript of examinations.

The application periods for regular accreditation are:

- July 1 to December 30 for the May SOA examinations
- January 1 to June 30 for the November SOA examinations

The following documents must be submitted to the ASP Examination Committee under this case:

- Duly accomplished Accreditation Form

- Accreditation Fee of P1,200 per examination
- Original SOA Examination Result ("white slip"). This will be returned to the student along with the ASP Examination Committee's letter of accreditation.

## **II. Updating to Active Status**

If an SOA exam is not accredited on time, the candidate should request the SOA for a confirmation of all exams in order to return to active status.

The following documents must be submitted to the ASP Examination Committee under this case:

- Duly accomplished Accreditation Form
- Processing Fee of P 1,200 per examination
- Letter of Confirmation of Exams Passed from the SOA

## **III. Fellowship Examinations**

### **Form of Examinations**

The Fellowship Examinations are given in written-answer form.

### **Credits for Past Examinations**

Courses passed under the previous syllabus shall be credited towards the 2008 syllabus as follows:

To earn full credit for:	Candidate must have passed ASP Course*:
Course 1	510 and 610
Course 2	520 and 530
Course 3	540, 550 and 650
Course 4	620, 630 and 640

There are no partial credits towards any of the courses under the 2008 syllabus.

\*The topics for the ASP Courses offered prior to 2008 were as follows:

<u>Course Number</u>	<u>Topic</u>
ASP 510	Valuation of Liabilities
ASP 520	Life Insurance Accounting
ASP 530	Investments and Finance
ASP 540	Selection of Risks; Reinsurance
ASP 550	Pre-Need Plans
ASP 610	Gross Premiums; Asset Shares; Other Pricing Considerations
ASP 620	Retirement Plans
ASP 630	Social Insurance
ASP 640	Group Insurance; Health Benefit Systems
ASP 650	Life Insurance Law, Taxation

### **Applications to Write Examinations and Deadlines for Submission**

The application form for the 2008 Fellowship Examinations is contained at the end of this Catalogue. The said application form can be photocopied as long as the original signature of the Applicant will appear in

the form that will be submitted to the Society. Application Forms are also available at the office of the Actuarial Society of the Philippines.

The Application Form and the required examination fee should be submitted on or before May 5, 2008 (Monday) for the June Examinations, and November 3, 2008 (Monday) for the December Examinations.

Candidates must sign the following statement that appears on the application:

"I have read the rules and regulations concerning the examination(s) for which I am applying, and agree to be bound thereby."

Unsigned applications are not valid and will be returned to the applicant. Applicant will not be registered for an examination unless the Society has an original signed application for the examinations applied for.

### **Examination Fees**

The regular examination fees for 2008 are as follow:

Course No.	Topic	No. of Hours	Exam Fee
Course 1	Development, Pricing And Distribution Of Life Insurance, Preneed And Annuity Products	6	Php7,200
Course 3	Solvency And Risk Management For Insurance And Preneed Companies, Selection Of Risks, Reinsurance, Law And Taxation Of Insurance And Pre Need Companies	6	Php7,200
Course 2	Investments And Finance, Valuation Of Assets And Liabilities, Insurance And Pre-Need Accounting	6	Php7,200
Course 4	Social Insurance, Group Insurance And Health Care Systems And Employee Benefit Plans	6	Php7,200

A late charge of 50% of the examination fee will be assessed for late applicants. Fees should be remitted by check, draft or money order and made payable to the Actuarial Society of the Philippines, Inc. The Society will bear no responsibility for any loss of payments while in transit. Payment in cash is discouraged.

### **Refunds, Transfer of Fees**

In no case will examination fees be refunded. Examinees who do not sit for exams for which they have enrolled will forfeit their fees.

However, examinees who find that they cannot sit for an exam for which they have enrolled as a result of illness or other legitimate reasons may request that their fees be transferred and considered as deposit towards the fees for a future examination.

A transfer charge of P100 will be assessed for each course. The deposit may be transferred to an examination to be held no later than one year after the original examination date. Requests must be in writing and must be received by the society no later than two weeks after the scheduled examination date. Requests received after this time will not be considered.

## **Ticket of Admission/Instructions to Candidates**

The Examination Committee will mail each candidate a Ticket of Admission indicating the examination(s) for which an application has been submitted. Tickets of Admission will be mailed within two weeks before the date of the examination, except in the case of late registrants.

The ticket will contain the candidate's examination number which is to be written by the candidate on the examination(s) for identification purposes. The candidate should bring the ticket to the examination(s).

A candidate who does not receive his ticket of admission one week prior to the examination date or whose ticket of admission contains incorrect information should notify the Examination Committee through the secretary of the Actuarial Society of the Philippines, Ms. Anne Macasaet, at telephone number 892-0693.

## **Requirements for Admission to Test Center**

In order to be admitted into a test center, a candidate must show his ticket of admission and positive identification. The candidate must present valid identification with both a signature and a photograph (Driver's license, school ID, office ID, passport) or two identification cards with signatures; at least one form should contain a physical description. Each candidate will be required to sign in upon admission to the test center. A candidate who fails to meet the requirements for positive identification or refuses to provide a signature upon entering the test center will not be permitted to write the examination.

## **Signatures on Exam Answer Sheets and Envelopes**

Candidates are required to sign their answer sheets or envelopes. **Candidates who turn in examinations without signing the statement on the answer sheet or envelope will not have the examination graded.** The statement to be signed reads:

**"I have neither given nor received assistance of any kind on this examination. I understand the examination is confidential and will not disclose its contents. This examination is being written with the understanding that if the answer sheet/envelope is returned unsigned, it will not be graded."**

Envelopes for written-answer examinations will be opened by the Examination Committee secretariat; examiners and graders will receive information identifying candidates only by number.

## **Use of Calculators and Other Assistance in Writing Examinations**

A candidate may not communicate with or obtain assistance from any other candidate during the examination nor may any books, papers or typewriters be brought into the examination room. Only the type of calculators described in the next paragraph may be brought into the examination room.

Calculators are allowed on all examinations. Only a calculator with the four basic functions, one memory, the square root and % function may be used. Only calculators that have keys that are silent when pressed will be allowed. No calculator which produces any sort of noise while in use will be allowed. Calculators should be battery-powered. The Society will not be responsible for providing power outlets nor will the Society be able to guarantee the required intensity of indoor lighting to power a solar-powered calculator. Questions will be set assuming access to a calculator of the approved type.

Examination supervisors are authorized to provide a substitute calculator, if available, in the event that a candidate's calculator malfunctions during the examination. However, supervisors will not provide a calculator for persons who neglect to bring a calculator of the approved type to the examination.

Persons using a calculator that is not allowed will have their examinations disqualified and their papers will not be graded.

### **Examination Results**

Candidates receive individual statements of their examination results, usually within six to eight weeks after the examination date. A list of passing candidate numbers for that examination part will be available from the ASP Secretariat at this time. Several weeks later, a list of the names of passing candidates for that examination will be available from the committee.

The individual grades will be reported on a scale of 0 to 10. Passing grades will range from 6 to 10; failing grades from 0 to 5. In this scale, the interval is 10 percent of the score required to pass; for example, a grade of 5 means failing with a score at least 90% but less than 100% of the score required to pass. A grade of 0 does not necessarily mean that a candidate received no points, but rather that the candidate's score was less than 50% of the score required to pass.

Shortly after results are sent to candidates, lists of the names of all passing candidates are announced to Society members.

Examination sheets are not returned to candidates for any Society examination.

A "hotline" service begins once grades have been released and will be active for a week. A candidate may call the hotline and access his exam results by providing his candidate number. The system will provide only pass/fail results; no other information will be available. This hotline will not be in service at any other time during the year. The phone number and the person to call will be provided with your ticket of admission.

### **Lost Examinations**

If a completed examination sheet is inadvertently lost or destroyed, the examination fee will be refunded. The Society assumes no other obligation and candidates must take all examinations subject to this understanding.

### **Defective Questions**

Occasionally, through error or because of varying interpretations, a question appearing on the examination may be found to be defective. Examples of defects include: material typographical errors, ambiguities, and questions with test material not covered in the course of reading. Candidates who believe that a question is defective should write to the Examination Committee within two weeks of the examination date. The letter should explain in detail why the candidate thinks the question is defective. The Examination Committee will investigate all questions brought to its attention in this way, and may make allowance in the grading process, if appropriate. The Examination Committee may make use of the candidate's examination books to determine whether their scores should be adjusted. Correspondence not reaching the Society within two weeks after the examination date will not be considered by the Committee.

## Confidentiality of Examination Records

The fact that a candidate has passed an examination for credit with the Actuarial Society of the Philippines is considered public knowledge. Any further information about the examinations taken or grades received by a candidate is available only to the candidate, to the Examination Committee Chairman and specific members as required for purposes of committee work. A candidate may, however, request in writing to the Society office that a designated person should receive such information.

## Disciplinary Action

Candidates must not give or receive assistance of any kind during the examination. Any cheating, any attempt to cheat, assisting therein, or engaging in such conduct as listed below are serious violations and will generally result in the candidate's paper being disqualified, and other disciplinary action as may be deemed appropriate. Examples (not a complete list) of actions by candidates which may lead to disciplinary action are:

- a) Gaining access to examination questions before the examination
- b) Using an unauthorized calculator
- c) Looking in the examination book before the signal to do so is given
- d) Looking at another candidate's paper
- e) Enabling another candidate to copy from one's paper
- f) Any communication with another candidate during the examination
- g) Disturbing other candidates during the examination
- h) Consulting any other person, any books or materials inside or outside of the examination room during the examination period
- i) Making any changes in the answer sheet or book after the time has expired
- j) Copying questions or answers to take from the examination room
- k) Taking an examination booklet from the examination room
- l) Taking an examination for another candidate
  
- m) Arranging to have another person take an exam for the candidate
- n) Disclosing the contents of an examination to another person
- o) Presenting false information on an examination application

The Examination Committee will pursue any evidence that a candidate has cheated or failed to follow examination rules, either in letter or in spirit. Any irregularity or suspected violation will be investigated. The candidate may be asked to attend, or be offered the opportunity to have, a hearing convened by the committee. When a violation is confirmed, disciplinary actions may include, but are not limited to, disqualification of the candidate's examination paper and a prohibition against writing Society examinations for a specified period.

The Actuarial Society's rules and regulations concerning examination administration, including disciplinary action, are composed of the information in this Catalogue, as well as the information in the Instructions to Candidates mailed with the Ticket of Admission, the information on the covers of examination booklets, and the material read by the supervisors at the beginning of each examination. All candidates, on their applications for examinations, are required to read and sign the following statement: **"I have read the rules and regulations concerning the examination(s) for which I am applying, and agree to be bound thereby."**

These standards may seem stricter than those to which candidates are accustomed to in other examination environments. The Actuarial Society of the Philippines maintains these strict standards because the examinations are such a significant part of a candidate's career. Therefore, equitable administration of the examinations and enforcement of the highest standards of conduct cannot be emphasized too strongly. The conduct of the vast majority of candidates for the Society's examinations is of the highest quality.

### **Correspondence**

Requests for application forms or other correspondence regarding examinations or other matters should be addressed to:

Actuarial Society of the Philippines  
Rm.819 Cityland 10 Tower 2  
Dela Costa St., Makati City

Telephone requests will not be entertained.

Request for application forms, catalogues or other correspondence regarding the Society of Actuaries Examinations should be addressed to:

Society of Actuaries  
Attention: Society of Actuaries Exam Dept.  
475 North Martingale Road  
Suite 800  
Schaumburg, Illinois 60173  
U.S.A.

## **IV. The Examination Committee**

### **Organizational Structure of the Examination Committee**

The examination program of the Actuarial Society of the Philippines is administered by its Examination Committee. Within this overall Committee, two types of units operate:

- a) The June and December examination subcommittees review the course of reading and recommend changes to the required texts and references, and are responsible for administering and grading the examinations.
- b) The secretariat of the Committee is responsible for handling the recordkeeping and correspondence functions of the committee.

### **Review and Development of Course of Reading**

The course of reading is regularly reviewed by the Education and Eligibility Council. Both short and longterm goals for improvement are developed.

Although every effort is made to choose material which is presented clearly and unambiguously, errors may occur occasionally. Candidates who believe they have found an error in any study material should notify the Examination Committee of the Society so that any necessary corrective action may be taken.

Candidates should be aware that the Society continuously reviews the entire examination program vis-à-vis its long-term organizational goals.

## **Development of Examinations**

Each examination is developed by the Fellows of the ASP who have been designated by the Board of Governors to serve as examiners for the season. The content of the examination is designed to test the candidate's knowledge of the subject matter as defined in the course Catalogue.

Every effort is made to ensure that the questions fall within the scope of the course of reading and that each question is answerable in the time allocated to it. Complete coverage of all parts of the course of reading is not practical for every examination every year, but the goal is to develop well-rounded examinations containing representative, high-quality questions which test the candidate's knowledge of the most essential parts of the course of reading. The examiners deliberate to determine which topics are critical and should be tested for each course.

In fellowship examinations, the candidate's ability to integrate his knowledge of the course materials with 'real world type' situation is tested. Trick questions are deliberately avoided, and the wording of each question is considered carefully to eliminate possible ambiguities.

A review of all examination questions is conducted by the Committee prior to the examination dates to assure their quality. In addition, the Committee evaluates the level of difficulty of the examinations to ensure consistency with examinations during the previous years.

## **Grading Process**

Only the answer sheets determine the score. Marks on the examination booklet or the scratch paper will not be considered.

For written-answer questions, every effort is made to grade the answers according to completely objective standards. The anonymity of the candidates is fully preserved; subcommittee members see only a candidate number when grading an examination. Each examination subcommittee has a grading process to fit its own needs.

A subcommittee with a small number of papers to grade might work as follows:

One committee member would be assigned to grade each written-answer question. The grader starts with a grading outline which lists possible items that are relevant to the question and their numerical values set according to each item's importance.

The grader may give additional credit in recognition of a candidate's demonstrated overall grasp and understanding of the subject. All answers are measured against the grading outlines, to ensure that the same standards are applied to all candidates.

After grading the first few papers, the grader evaluates the grading outline in the light of responses. If there are additional items which deserve credit, the grader will then revise the grading outline and start over. Throughout the grading process, credit for items still not contained in the outline may be given.

After all papers have been graded, a conversion scale determines the score each candidate receives for that question.

Papers are retained for at most six months after the examinations to be available if questions or problems arise. After this, the papers are destroyed.

## **Determination of the Pass Mark**

The objective of the examinations is to identify candidates who, as a pre-requisite to admission in the Society as a fellow, demonstrate adequate knowledge of the course of reading, based on standards that are formulated and applied consistently from year to year.

The Committee sets a passing mark prior to the examinations. Candidates are not graded in competition with other candidates.

## **V. Suggestions for Candidates**

### **Order for Taking Examinations**

There is no prescribed order for taking examinations. However, all Fellowship examinations are constructed assuming that candidates are familiar with the material in the required Associateship readings.

### **Study Methods**

Allocate sufficient time to cover each topic adequately. Allow for the length of the prescribed study material in your schedule. Maintain an interest in current developments. Knowledge of actual practice is often helpful. All material should be carefully studied.

Integrate material as you study. Compare programs, methods and so on. The more connections you can develop within the study material and between the study material and your other knowledge or experience, the keener your understanding and memory of the concepts presented will be.

Maintain contacts with other candidates and take advantage of the opportunity to discuss topics that you find difficult. Do not hesitate to consult established members of the profession in your own organization or elsewhere.

One good way to prepare for examinations is to pretend you are the examiner and to develop examination questions in order to gauge your understanding of the relative importance of the material presented.

### **Classes and Seminars**

Most candidates either study by themselves or with a group that they have formed for the purpose. Other options are available. Some universities offer courses that closely parallel the course of reading prescribed by the Society.

### **Approaches to Writing Written-Answer Examinations**

Written-answer questions are intended to elicit answers in essay and/or outline form. Numerical rittenanswer questions require extended numerical or formula solutions; the credit given is based not only on the correct results, but also on the steps used to derive these results.

Paper is provided at the examination room for your answers. You must take time to write legibly, since examiners can only give credit for what they can read.

Each written-answer question is assigned a specified number of points. The number of points indicates the relative weighting each question bears to the total examination and to the other questions, and suggests

the relative time that you should spend on that question. Try to distribute the examination time over all questions and to limit consideration of any question to the time proportionately allotted to it. It will usually be more profitable to write at least a brief answer to a question for which you are relatively unprepared than to spend time refining an answer to a question on which you are well informed. No extra points are given for padding an answer.

At the time of the examination, read each question thoroughly. Before making any attempt to write out the answer, be sure to understand what is being asked and try to organize your intended answer. It is most important that you answer the question that is asked and avoid digressing to another subject. It may be helpful to write a brief outline before beginning the actual answer. Avoid repeating the question in your answer, as it will not add points to your score, and you may waste valuable time. You do not have to answer the questions in any particular order. Some candidates prefer to answer the questions in the order given, while others read over the entire page, warm up on a question that comes easily, and gradually work into the more challenging questions. However, your solutions/answers must be submitted in the order of the questions. The subcommittee will not grade solutions which are not presented in the proper order.

You may find it helpful to jot down on a piece of scratch paper ideas that come to mind concerning both answered and unanswered questions. You may answer questions in outline form provided the meaning is clear. Another acceptable technique is to use one sheet of paper for "advantages" and another for "disadvantages". This allows you to go back and forth from one page to the other, putting down items as they occur to you. Use as much answer paper as needed. An orderly presentation can do no harm, and additional pages may result in putting down further facts and considerations which earn additional credit.

If you feel that there is a better answer or approach than that indicated in the Course of Reading (e.g., because of recent changes in regulations), it is acceptable to write this answer, although you should state at the outset that your answer differs from the Course of Reading. Of course, if you can also indicate the answer or approach given by the Course of Reading, thus demonstrating to the individual examination committee that the assigned material was read and mastered, this may increase your credits. Once the maximum number of points on a question has been achieved, however, there is no advantage to adding more to an answer. Obscure interpretations should not be read into a question, for each question is designed to be straightforward. Try to cover all aspects of the question in the answer and include pertinent facts and details in the answer even if, based on practical experience, they seem obvious. However, including any facts and details not pertinent to the question will not earn any additional credit and will waste examination time. Do not enlarge upon any one point to the exclusion of others. Try to state both sides of a question where they are called for in an answer. If time permits, review all answers given.

Questions may cross subject lines. You can prepare for this by thoroughly understanding the interrelationship of the various subjects within each course.

Since each question is graded separately, each of your answers must be self-contained. An answer must not say, for example, "Part of my answer to question 1 is found in my answer to question 3." **Also, EACH ANSWER MUST BE STARTED ON A NEW SHEET OF PAPER.**

## **VI. Course of Reading**

### **Introduction, Course of Reading**

The following Course of Reading is a guide to those preparing for the examinations. The objective of the examinations is to test the candidates' ability to grasp the underlying principles and apply them in the solution of problems.

Every effort is made to keep the Course of Reading up to date. However, legislative or regulatory changes which would affect the answers to examination questions sometimes occur after the setting of the final Course of Reading. It would be useful to state also how the answer differs from the Course of Reading, if time permits.

If a paper or article from an actuarial or insurance publication is recommended for study, candidates should additionally study any discussions of the papers or articles published in the same volume, unless the Course of Reading or study notes indicates otherwise.

Candidates are generally expected to obtain their own copies of papers or articles referenced in the Course of Reading which are not study notes. However, if a candidate cannot locate a particular reference, the Society library can provide a copy of the required paper or article upon request. There is a fee for this service.

References to publications of the Actuarial Society of the Philippines, the Society of Actuaries of North America, the Conference of Consulting Actuaries, the Canadian Institute of Actuaries, American Academy of Actuaries and the Actuarial Standards Board are abbreviated in the Course of Reading as follows:

PASP	Proceedings, Actuarial Society of the Philippines
TSA	Transactions, Society of Actuaries of North America
RTSA	Reports Transactions, Society of Actuaries
RSA	Record, Society of Actuaries
PCCA	Proceedings, Conference of Consulting Actuaries
PCIA	Proceeding, Canadian Institute of Actuaries
AAA	American Academy of Actuaries
ASB	Actuarial Standards Board

Roman numerals indicate the volume and Arabic numbers indicate the pages of the reference, except in the case of RSA, in which Arabic numbers are used throughout.

Occasionally, it may be necessary to change the Course of Reading for an examination after the publication of this Catalog. Such a change will be announced in a special notice to be mailed with your Ticket of Admission. If there is any conflict between information contained in this Catalog and that announced with the Ticket of Admission, the latter will govern.

A "#" indicates a change in the Course of Reading such as new or revised study material, a new edition of a textbook, a shift of study material from one examination to another, or different chapter references from a previously used textbook.

## 2008 FELLOWSHIP COURSES

### ASP COURSE 1

#### DEVELOPMENT, PRICING AND DISTRIBUTION OF LIFE INSURANCE, PRENEED AND ANNUITY PRODUCTS

##### A. Overview of Financial Products

Topics include:

1. The financial life cycle
2. Types of financial products
  - a. Money or transaction services, short-term savings products and borrowing instruments
  - b. Life, health, disability and unemployment insurance
  - c. Pre-need products
  - d. Retirement programs
  - e. General insurance
  - f. long-term savings products
  - g. other sources of financial security

##### Required Readings:

- Bellis, C., Shepherd, J., and Lyon, R., 2003. Understanding Actuarial Management. Chapter 5, Sections 5.1 to 5.7
- Atkinson, David F.S.A. and Dallas, James F.S.A. Life Insurance Products and Finance. The Society of Actuaries, 2000. Schaumburg, Illinois. Chapter 1.
- Roa, Emeterio. PreNeed: Past, Present and Future. Actuarial Society of the Philippines Proceedings 1998.

##### References (candidate will not be directly tested on these materials):

- Josef, Aida. The Actuary in PreNeed Plans. ASP Proceedings Volume XIV, pages 124-131, including Discussion.

##### B. Product Development and Design

Topics include the stages of the development process, the impact of changing economic conditions and marketing environments on product design, applicable legal and taxation principles, communicating results, and pricing design issues associated with various products and benefits. The candidate should be able to:

1. Understand the stages of the product development process.
2. Apply actuarial non-forfeiture principles and practices to the determination of non-forfeiture methodology, options, and values.
3. Communicate interim and ultimate results of product designs to internal and external constituencies, incorporating professional requirements and standards.

4. For life insurance, pre-need and annuity product groups:
  - a. Recognize the standard and unique features of the products.
  - b. Identify the risks involved in offering such products and coverages.
  - c. Manage the risks so identified.
5. Life insurance products include ordinary, term, universal, and variable life. Pre-need include memorial, pension and education. Annuity products include deferred, immediate, and variable annuity basic products and advanced annuity features.

Required Readings:

- Bellis, C., Shepherd, J., and Lyon, R., 2003. Understanding Actuarial Management: The Actuarial Control Cycle. Institute of Actuaries of Australia, Chapter 7
- Atkinson, David F.S.A. and Dallas, James F.S.A. Life Insurance Products and Finance. Society of Actuaries, 2000. Schaumburg, Illinois. Chapter 2.
- Chan, Benjamin F.S.A. Unit-Linked Insurance: A General Report, 2001 Proceedings Volume XXIII. 42nd ASP Annual Convention, 2001.
- Society of Actuaries. Simplified-Issue Life Insurance: Current Practices and Next-Generation Products, SOA Record Volume 30, No. 3

**C. Pricing**

Topics include the selection of pricing assumptions, profit goals and policyholder equity, models used to measure profitability and to determine gross premiums, dividends and non-guaranteed elements. The candidate should be able to:

1. Select assumptions needed to price individual life insurance and annuity products (mortality, investment return, expenses, and lapses/withdrawal/loans/terminations), and understand how such assumptions are developed.
2. Understand shareholder expectations and the principles of policyholder equity, and their impact on the development of profit goals and the pricing process.
3. Develop and use models to compute gross premiums, compute dividends, set non-guaranteed elements, and measure the profitability of individual life insurance, pre-need and annuity products.
4. Apply alternative pricing strategies and understand the issues involved in changing prices.

Required Readings:

- Bellis, C., Shepherd, J., and Lyon, R., 2003. Understanding Actuarial Management: The Actuarial Control Cycle. Institute of Actuaries of Australia. Chapter 11
- Atkinson, David F.S.A. and Dallas, James F.S.A. Life Insurance Products and Finance. The Society of Actuaries, 2000. Schaumburg, Illinois. Chapter 3-6, 11.
- Gonzales III, A. Actuarial Models and Formulas for Pre-Need. Part 3 excluding Appendix on p. 20 and 21
- Insurance Code of the Philippines, Chapter 3 Title 9. Sections 226-227
- Securities and Exchange Commission. New Rules on the Registration and Sale of Pre-Need Plans Under Section 16 of the Securities Regulations Code, 2001, Rules 1 to 4, 27 to 30
- Philippine Tax Reform Act of 1997 (Republic Act No. 8424) Sections 123, 183 and 186.
- Actuarial Society of the Philippines. Guidelines to Actuarial Practice in PreNeed, Sections I to V, VII, VIII. October 2000.

- Actuarial Society of the Philippines. Code of Conduct. August 2000. Sections I to III
- Actuarial Society of the Philippines. Interpretations and Recommendations on the Code of Conduct. August 2000, Section PP: Actuarial Principles and Practices

References (candidate will not be directly tested on these materials):

- Insurance Code of the Philippines Chapter 3 Title 9. Sections 228 to 231.
- Insurance Code of the Philippines Chapter 3 Title 10
- Insurance Commission. Guidelines on Variable Life Insurance Contracts. July 2002.
- Insurance Commission. Circular 27-2005: Expeditious Approval of Traditional Life Insurance Products. Includes all Annexes, and Circulars mentioned in Annex D. August 26, 2005.
- Insurance Commission. Circular 29-2005: New Guidelines for Foreign Currency Denominated Investments and Insurance Policies. September 23, 2005
- Insurance Commission. Circular 15-2006.: New Maximum Policy Loan Interest Rates
- Securities and Exchange Commission. New Rules on the Registration and Sale of Pre-Need Plans Under Section 16 of the Securities Regulations Code, 2001, Rules 5 to 15
- Gonzales III, A. Actuarial Models and Formulas for Pre-Need. Parts 1 to 2

**D. Marketing of individual life insurance, pre-need and annuity products**

Topics include the marketing process, distribution methods, impact of market research and distribution method on product design and pricing, and cost disclosure. The candidate should be able to:

1. Understand the marketing process.
  - a. objectives of marketing
  - b. strategy formation
  - c. contribution margin and profit optimization
  - d. sources of marketing information
2. Understand alternative methods of distribution for individual life, pre-need and annuity products.
  - a. know the primary methods: traditional agency and non-traditional
  - b. primary compensation features of each system
3. Integrate market research and distribution method choices into the design and pricing of individual life, pre-need and annuity products.
  - a. use of market research in product design
  - b. appropriate assumption for selection pricing
4. Design appropriate product illustrations and disclosures.

Required Readings:

- Bellis, C., Shepherd, J., and Lyon, R., 2003. Understanding Actuarial Management: The Actuarial Control Cycle. Institute of Actuaries of Australia. Chapter 5, Section 5.9
- Porte, P., Editor. Marketing for Actuaries, 2000. Chapters I–VII.
- Insurance Commission. Circular Letter No. 23-2005: Guidelines on Sales Illustrations of Life Insurance Proposals. August 3, 2005
- Direct Mailing and Telemarketing: A Review of Current Business Model, 2003 EAAC
- Stein, Robert. Bancassurance – Industry Savior or Threat, 22nd Pacific Insurance Conference, 2001.

## **E. Monitoring and Responding to Experience**

### Topics include:

1. Analysis of Experience
2. General considerations and management systems
3. Approaches to distribution of actual returns
4. Review of Insurance Pricing
5. Recognition of profits

### Required Readings:

- Bellis, C., Shepherd, J., and Lyon, R., 2003. Understanding Actuarial Management: The Actuarial Control Cycle. Institute of Actuaries of Australia. Chapters 17 and 18 (excluding Section 18.8)
- CSO Task Force. 2001 CSO Table. American Academy of Actuaries
- Society of Actuaries. US Individual Life Persistency Report. 2005.
- Actuarial Society of the Philippines. 2000 Group HMO Claims Experience, Actuarial Society of the Philippines Proceedings 2002.
- Best Estimate Assumption for Expenses, Appendix A, CIA Education Note

## **F. Application of the Actuarial Control Cycle to Product Development, Design and Pricing**

### Required Readings:

- Bellis, C., Shepherd, J., and Lyon, R., 2003. Understanding Actuarial Management: The Actuarial Control Cycle. Institute of Actuaries of Australia. Chapter 19
- Actuarial Society of the Philippines. The Actuarial Control Cycle in a Life Insurance Industry, 1998 ASP Proceedings

## ASP COURSE 2

### INVESTMENTS AND FINANCE, VALUATION OF ASSETS AND LIABILITIES, INSURANCE AND PRENEED ACCOUNTING

#### A. Valuation of Liabilities

This course covers valuation of liabilities at introductory level. The student is expected to understand the impact of appropriateness of valuation assumptions used. The student must understand the relationship among valuation, pricing and the profitability of life insurance and pre-need operations. The student should also be familiar with the existing regulation on reserve valuation in the Insurance Code as well as the pre-need valuation regulations of the Securities and Exchange Commission.

#### B. Life Insurance & Pre-need Accounting

The student must understand how the different summary financial statements and the Philippine Annual Statements are prepared. The student must be able to realize how and how much a change in a particular accounting transaction will impact the summary financial statement and the Annual Statement. The student must also be familiar with the Insurance Commission (IC) and Securities and Exchange Commission (SEC) regulations on financial reporting.

In addition, in the context of the new Philippine (and International) Financial Reporting Standards, he must recognize embedded derivatives, must know how to unbundled deposit components, must know how to recognize and measure income and expenses and must know the disclosure requirements.

#### C. Investment and Finance

The readings provide an introduction to the different types of investments and their risk/return relationship, capital market theories, hedging and asset/liability management principles and techniques. The student must also familiarize himself with the limitations imposed by existing regulation on life insurance and pre-need company investments.

##### Reading Materials:

- Insurance Commission. Circular No. 3-87 Preparation of the Annual Statement. January 1987.
- Society of Actuaries. Financial Risk to Life Insurance Companies from Changes in Interest Rates.
- Society of Actuaries Records, Panel Discussion, Volume VIII, No. I, pp. 23-40.
- Insurance Code of the Philippines, Chapter III, Titles 3, 4, 5 and 8 (excluding sections 204, 205 and 213).
- Insurance Commission. Memorandum Circular No. 6-2006 Adoption of Risk-Based Capital Framework for the Philippine Life Insurance Industry, 5 October 2006
- Vanderhoof, I. Interest Rate Assumptions and the Relationship Between Asset and Liability Structures Study Notes Code 8.209.87. Society of Actuaries, 1987
- Bodie, Kane, and Marcus. Investment (Sixth Edition), Chapters 1-12, 24 (Section 24.1 only) and 25, excluding Appendices
- Insurance Accounting & Systems Association Inc. Life Insurance Accounting, 3rd edition, June 1994, Chapter 22 (Asset/Liability Matching)
- Noback, Joseph C., Life Insurance Accounting, 1969, Chapter 1-11, 16-17, 26-33 and 38
- Society of Actuaries. Life Insurance Accounting-Financial Reporting and the Actuary, Study Notes Code 99.29.76

- Atkinson, D. B. Dallas, J.W. Life Insurance Products and Finance 1st Edition, Society of Actuaries Chapters 6, 10, 11 and 15
- Philippine Annual Statement Blank
- Philippine Financial Reporting Standard 4: Insurance Contracts
- Society of Actuaries. Report of the Committee on Valuation and Related Problems, Records Volume V. No. I, pp. 256-280.
- Securities and Exchange Commission. Rules and Regulations Implementing The Uniform Chart of Accounts for Pre-Need Plan Companies. March 1999.
- Actuarial Society of the Philippines. Standards of Actuarial Practice in Pre-need. November 2005. Articles III, IV, V, VI and IX.
- Tullis, Mark A., Polkinghorn, Phillip K. Valuation of Life Insurance Liabilities 3rd Edition. Actex Publications:Winsted, Conn.: 1996. Chapters 1,2,3,4,7,8. Omit portions on Canadian practices

## ASP COURSE 3

### **SOLVENCY AND RISK MANAGEMENT FOR INSURANCE AND PRE-NEED COMPANIES, SELECTION OF RISKS, REINSURANCE, LAW AND TAXATION OF INSURANCE AND PRE-NEED COMPANIES**

#### **1. Solvency and Risk Management**

This section covers corporate finance and financial strategy, capital management and risk management. While some of the topics in the required readings will deal with specific discussion on US and Canadian practices, the student is expected to know the principles and other aspects of such topics as they may apply to local practice.

- Risk Management by Insurers: An Analysis of the Process. Society of Actuaries Study Note, FE-203-00.
- Allocation of Risk Capital in Financial Institutions. Society of Actuaries Study Note, 8FE-208-01.
- Income Based Reserves. Society of Actuaries Study Note, 8FE-302-05.
- Solvency Based Reserves. Society of Actuaries Study Note, 8FE-303-00.
- Asset/Liability Management. Society of Actuaries Study Note, 8FE-316-03.
- Asset-Liability Management for Insurers. Society of Actuaries Study Note, 8FE-319-02.
- Capital Allocation in Financial Firms. Society of Actuaries Study Note, 8FE-325-06.
- Mapping of Life Insurance Risks. Society of Actuaries Study Note 8E-704-04.
- Chew, D. The New Corporate Finance: Where Theory Meets Practice Third Edition. Irwin/McGraw Hill: 2001. Ch. 28, 29, 31, 33.

#### **2. Selection of Risks and Reinsurance**

This section covers underwriting and reinsurance. The student must be able to identify the different factors affecting the risk classification of a proposed insured. The student must understand the need for reinsurance, the factors which must be taken into consideration in choosing a reinsurance arrangement for an insurance company, and the different types of reinsurance arrangements.

- Academy of Life Underwriting. Basic Life Insurance Underwriting 2nd Edition. Chapters 2 – 9, 11–14.
- Academy of Life Underwriting. Intermediate Non-medical Life Insurance Underwriting 1st Edition. Chapters 1 – 5, 8 - 9, 12.
- Tiller, J. and Tiller, D. F. Life, Health & Annuity Reinsurance 3rd Edition. ACTEX Publication: 2005. Chapters 1 – 6, 8 – 9, 15.
- Reinsurance Pricing. Society of Actuaries Study Note Code 82.31.71.
- Insurance Code of the Philippines. Chapter 3 Title 7 – Reinsurance Transactions
- Insurance Commission. Superseding Circular letters dated November 20, 1997, January 11, 1978, September 6, 1978 and all other circular letters in the same subject: Rules and Regulations on Reinsurance Transactions, August 1980

#### **3. Law and Taxation**

This section covers life insurance and pre-need law and taxation. The student is expected to understand the general principles of business law and the legal issues relating to life insurance and pre-need companies. The student should be familiar with the pertinent provisions of the Insurance Code, the

Securities Regulation Code and various laws and regulations governing the life insurance and pre-need industries. The student must also understand the various ways that life insurance and pre-need companies are taxed. The student must also know the history of the changes in taxation in the Philippines, especially documentary stamps tax and premium tax among others and how they affect packaging and pricing of insurance and pre-need products.

- Life Office Management Association. Inc. Business Law for Financial Services Professionals 2004. Chapters 2 – 3, 5 – 6, 10 – 14.
- Insurance Code of the Philippines. Chapter 1, Titles 1-8; Chapter 2, Title 5; Chapter 3, Titles 1, 2, 12 & 13; Chapter 4, Titles 1 & 6; Chapter 5; and Chapter 7, Title 1.
- De Castro, Isagani. Revised review notes on ASP Course 650: Excerpts from and Annotations on some Provisions of the Insurance Code including reading materials on the law applicable to Life Insurance. 2001.
- De Castro, Isagani. Taxation Principles & Practice and Life Insurance Taxation. (Students should consider the new provisions of R.A. 8424)
- Republic of the Philippines Act No. 8424 (The Tax Reform Act of 1997), Section 27 (excluding 27(B), 32, 34(A) to 34(F), 34(M), 37, 85(E), 123, 183, 184 and 186.)
- Securities and Exchange Commission. Memorandum Circular Number 6 Series of 2002: Standards for Valuation of Actuarial Reserve Liabilities for Pre-need Plans. June 2002.
- Securities and Exchange Commission. Memorandum Circular Number 7 Series of 2002: Required Information to Accompany the Actuarial Valuation Report of Pre-need Companies. June 2002.
- Securities and Exchange Commission. Memorandum Circular Number 8 Series of 2002: Responsibilities of Actuaries in Pre-need Actuarial Reserve Valuation. June 2002.

## ASP COURSE 4

### **SOCIAL INSURANCE, GROUP INSURANCE AND HEALTH CARE SYSTEMS AND EMPLOYEE BENEFIT PLANS**

#### **A. Social Insurance**

This section covers social insurance in general and the Philippines' social insurance systems. The student is expected to understand the models used by the different social security programs in determining the proper funding techniques to maintain fund viability. He should know the various implementing rules and regulations regarding social insurance in the Philippine setting.

##### References:

- ASP Study Notes on Social Insurance
- IAA Guidelines of Actuarial Practice for Social Security Programs, adopted October 21, 2002, effective January 01, 2003.

#### **B. Group Insurance and Health Care Systems**

This section covers group life insurance and health care systems. Specific topics include:

- Group life insurance
- Group disability insurance
- Group medical and other group insurance coverages
- Group underwriting and managing risks
- Funding and rating
- Actuarial models
- Legal and regulatory requirements for group insurance and health coverages under the Philippine setting

##### References:

- Bluhm. Group Insurance, 4th Edition. 2003, Chapters 1, 2, 4 (except discussions on U.S. Federal Tax Implications), 5, 6, 22, 23, 25, 27, 28, 29, 32, 33, 34 to 40
- Insurance Code, Section 228

#### **C. Employee Benefit Plans**

This section covers the financial aspects of retirement plans and how these may be measured. It also covers pension fund management practices in the Philippines as well as valuation methods. Legal and taxation considerations are also covered.

##### References:

- Cabading, Maricar, et. al. Private Retirement Plans in the Philippines. Actuarial Society of the Philippines, 2005.
- McGill, Dan M., et. al. Fundamentals of Private Pensions 8th Edition, 2005, Chapters 1 (pp. 3-21), 10, 11, 12 (pp. 309-316), 14, 15, 21 to 25 (pp. 679-685)
- Anderson. Pension Mathematics for Actuaries 3rd Edition, Chapters 1, 2, 6, 7

- Actuarial Society of the Philippines. Recommendations for the Valuation of Retirement Plans: 2004
- Philippine Accounting Standards No. 19
- Aitken. A Problem-Solving Approach to Pension Funding and Valuation 2nd Edition. Chapters 1-5

## **VII. Fellowship Admission Session**

The Fellowship Admission Session (FAS) is the final requirement for Fellowship in the Society. The FAS may not be taken unless all of the other course requirements for Fellowship have been met. Once these course requirements have been met, you may enroll in the next scheduled FAS. The FAS will be offered in August/September for those who completed all other course requirements the previous June or earlier, and in April/May for those who have completed all other course requirements the previous December or earlier. If you are unable to attend the FAS immediately following completion of Fellowship course requirements, you may attend any future FAS. You will not receive the FASP designation, nor be entitled to use such designation, until you have completed the FAS.

The FAS is three hours in length. The subjects covered are Professional Ethics and Integrated Problem Solving. The schedules of the FAS for 2008 may be obtained from the Office of the Actuarial Society of the Philippines.

Candidates who attend the session and participate in it fully will receive their Fellowship Diploma at the General Assembly of Society Members immediately following the FAS.

## **VIII. Validation by Educational Experience**

The ASP Validation by Educational Experience (ASP-VEE) consists of the following topics: Applied Statistical Methods, Corporate Finance and Economics. These topics are no longer tested but are required in addition to the Associateship examinations. However, these VEE topics are not prerequisites for the examinations, and may be fulfilled independently.

A candidate may obtain ASP-VEE credits by attending courses accredited by the ASP and achieving the required grade. Alternatively, a candidate may take standardized examinations or attend non-accredited courses on the required topics and request for accreditation from the ASP. A candidate may combine two or more courses in order to complete the coverage for a VEE topic.

A candidate may request for ASP-VEE accreditation after passing at least two Associateship examinations and not earlier than one year prior to expected completion of the examination requirements.

A candidate should apply for credits for an ASP-VEE topic after he has completed the coverage of that topic. Partial credits will not be given.

### **ASP Accredited Courses**

To request credits from attendance in ASP-accredited courses, a candidate should submit the following:

- Duly-accomplished ASP-VEE accreditation form,
- Payment of accreditation fee of P 1,200.00 per ASP-VEE topic, and
- Original Transcript of Records, and photocopy thereof. The original transcript will be returned to the candidate.

The list of accredited courses will be periodically updated.

If a candidate has received VEE credits from the SOA, the candidate may apply for ASP-VEE credits by submitting the ASP accreditation form, the accreditation fee, and his original SOA transcript of records reflecting that he has been given SOA-VEE credits. If the candidate does not have SOA-VEE credits but has passed an SOA-accredited course, a standardized examination or other educational experience, the candidate may still apply for ASP-VEE credits by submitting the required proof of attendance.

#### Standardized Examinations or Courses not accredited by the ASP

If a VEE Course or Examination does not appear on the ASP list, approval must be requested by submitting the following documentation:

- Duly-accomplished ASP-VEE accreditation form
- Payment of Accreditation fee of P 1,200.00 per ASP-VEE topic,
- Detailed course description, outline or syllabus, and
- Original Certificates of Attendance and/or Transcripts of Records, and photocopy thereof. The original certificate or transcript will be returned to the candidate.

The ASP may request for additional documentation to determine if the course or examination and that the candidate's performance have satisfied ASP-VEE requirements.

### **Topics Required under ASP's Validation by Educational Experience (ASP-VEE)**

#### **Applied Statistical Methods**

To obtain credit for this topic, the candidate must show satisfactory proof of attendance in course(s) covering most of the subjects listed below:

##### Regression analysis

- Least square estimates of parameters
- Single linear regression
- Multiple linear regression
- Hypothesis testing and confidence intervals in linear regression models
- Testing of models, data analysis and appropriateness of models

##### Time series/forecasting

- Linear time series models
- Moving average, autoregressive and/or ARIMA models
- Estimation, data analysis and forecasting with time series models
- Forecast errors and confidence intervals

#### **Corporate Finance**

To obtain credit for this topic, the candidate must show satisfactory proof of attendance in course(s) covering most of the subjects listed below:

- Definitions of key finance terms: stock company; capital structure
- Key finance concepts: financing companies; characteristics and uses of financial instruments; sources of capital; cost of capital; dividend policy; personal and corporate taxation
- Factors to be considered by a company when deciding on its capital structure and dividend policy

- Impact of financial leverage and long/short term financing policies on capital structure
- Characteristics of the principal forms of financial instruments issued or used by companies, and the ways in which they may be issued
- How a company's cost of capital relates to the investment projects the company wishes to undertake
- Definitions of key finance terms used for financial instruments – bond, stock, basic options (calls, puts); dividends; price to earnings ratio
- Structure of a stock company and the different methods by which it may be financed
- Calculation of stock value
- Measures of financial performance: balance sheet; income statement; statement of cash flows; financial ratios (e.g. leverage, liquidity, profitability, market value ratios); net present value; the payback, discounted payback models; internal rate of return and profitability index models
- Assessment of financial performance using various measures: balance sheet; income statement; statement of cash flows, financial ratios (e.g. leverage, liquidity, profitability, market value ratios); net present value; the payback, discounted payback models; internal rate of return and profitability index models

## **Economics**

To obtain credit for this topic, the candidate must show satisfactory proof of attendance in course(s) covering most of the subjects listed below:

### Microeconomics

- Interaction between supply and demand in the provision of a product and the way in which equilibrium market prices are determined
- Elasticity of demand and supply and the effects on a market of different levels of elasticity
- How rational utility maximizing agents make consumption choices
- How profit-maximizing firms make short run and long run production choices
- Different types of competition, or lack of it, and the practical effect on supply and demand

### Macroeconomics

- Structure of public sector finances of an industrialized economy
- GDP, GNP, and Net National Product. How these concepts are used in describing the economy and in making comparisons between countries, and their limitations
- Propensity to save or to consume by the private sector or the corporate sector and how it affects the economy
- Impact of fiscal and monetary policy and other forms of government intervention on different aspects of the economy, and in particular on financial markets
- Role of exchange rates and international trade in the economy and the meaning of the term balance of payments
- Major factors affecting the rate of inflation, the level of interest rates, the exchange rate, the level of unemployment, and the rate of economic growth in the economy of an industrialized country

## **IX. Associateship Admission Course**

The Associateship Admission Course (AAC) is the final requirement for Associateship. The AAC may not be taken until all of the other requirements for Associateship have been met. The AAC will be offered in August/September for those who completed their other requirements the previous June or earlier, and in April/May for those who completed their other requirements the previous December or earlier. If a candidate is unable to attend the AAC immediately following completion of Associateship examination and VEE requirements, he may attend any future AAC. The candidate will not receive the AASP designation, or be entitled to use such designation, until he has completed the AAC.

The AAC is planned to be two-and-one-half hours in length. The subjects covered are the structure and functions of the Actuarial Society of the Philippines, and an overview of Professional Ethics and Actuarial Practice. The schedule of the AAC may be obtained from the ASP Secretariat Office.

## **Appendix A**

### **Courses Accredited for ASP-VEE**

As of September 8, 2008, the following courses have been accredited by ASP for Validation by Educational Experience. A passing grade is required to obtain ASP-VEE credits.

#### **VEE-Applied Statistical Methods**

1. Ateneo de Manila University (ADMU)  
AMF 131 – Time Series and Forecasting, taken during 1998 – 2009
2. De La Salle University (DLSU)  
TIMESER or TIMEFOR - Time Series and Forecasting, taken during 1998 – 2009
3. University of the Philippines – Diliman (UP-D)  
Statistics 136 – Regression Analysis AND Statistics 145 – Introduction to Time Series Analysis And Forecasting, taken during 1998 – 2009
4. ASP Courses  
Course on Applied Statistical Methods: Econometrics, August 1 - October 3, 2007, conducted by Prof. Robert E. de Vera
5. All SOA-accredited Courses, Standardized Examinations and Other Educational Experience for its VEE-Applied Statistical Methods, taken during 1998 – 2009

#### **VEE-Economics**

1. Ateneo de Manila University (ADMU)  
Economics 102 - Basic Economics, Agrarian Reform & Taxation, taken during 1998 – 2009
2. De La Salle University (DLSU)
  - (a) INTRECO - Introduction to Economics, taken during 1998 - 2009
  - (b) ECONONE - Basic Microeconomics and ECON TWO - Aggregate Economics, both taken during 1998 – 2009
2. University of Asia and Pacific (UA&P)  
FOS 101 - Basic Economics, taken during 1998 – 2009
3. University of the Philippines – Diliman (UP-D)
  - (a) ECON 101 - Macroeconomics and ECON 102 – Microeconomics, taken during 1998 - 2009
  - (b) ECON 100.1 – Introduction to Macroeconomic Theory and Policy, and ECON 100.2 – Introduction to Microeconomic Theory and Policy, both taken during 1998 – 2009

4. All SOA-accredited Courses, Standardized Examinations and Other Educational Experience for its VEE-Economics, taken during 1998 – 2009

#### **VEE-Corporate Finance**

1. Ateneo de Manila University (ADMU)

FIN 120 – Financial Statement and Credit Analysis, taken during 1998 – 2009

2. De La Salle University (DLSU)

FINAMA2 - Financial Management 2, taken during 1998 – 2009

3. All SOA-accredited Courses, Standardized Examinations and Other Educational Experience for its VEE-Corporate Finance, taken during 1998 – 2009

#### **Accreditation of SOA Courses 2 and 4**

Candidates who passed both Course 2 and Course 4 of SOA's pre-2005 Education Syllabus will be given ASP-VEE credits for Applied Statistical Methods, Economics, and Corporate Finance, provided these SOA courses have been submitted to ASP for accreditation.

## Appendix B

### Requirements for Admission to the Society as an Associate For Those Who Completed Associateship Exams Prior to 2008

- a. **Who may be admitted.** Any individual, at least 18 years of age, upon nomination by two Fellows of the Society in good standing, may be admitted after completing the Associateship education and examination requirements effective during the year the last Associateship exam was passed.
- b. **When and how to apply.** A candidate planning to seek admission to the Society should submit an Application for admission as Associate to the Membership Committee within 10 years from completion of the education and examination requirements for Associateship. As an example, an examinee who finishes his last associateship exam in 2007 will have until 2017 to apply for Associateship under the 2007 education and examination syllabus. The application form may be obtained from the Chairman of the Membership Committee. The application for Associateship is subject to approval by the Board of Governors of the Society and by majority vote of the Society.
- c. **Associateship Education and Examination Requirements for 2006 and 2007.** Those who completed their last associateship examinations in 2006 and 2007 have to attend the Associateship Admission Course (formerly called the Associateship Professionalism Course) as announced in 1st Quarter General Membership Meeting in 2006, held at the SGV Hall, AIM, Makati. This requirement should be complied with prior to attainment of Fellowship designation.

**ACTUARIAL SOCIETY OF THE PHILIPPINES  
APPLICATION FOR 2008 EXAMINATIONS**

1. Full Name \_\_\_\_\_  
Surname
Given Name
Middle Name

If your name differs from that used in a previous application, please indicate prior name:

2. Date of Birth \_\_\_\_\_  
Month
Day
Year

3. Address \_\_\_\_\_  
Tel. No.: \_\_\_\_\_

- Please check if examination correspondence is to be mailed to this address.

4. A. If you are employed :

Name of Employer \_\_\_\_\_  
 Present Position \_\_\_\_\_  
 Address \_\_\_\_\_

- Please check if examination correspondence is to be mailed to this address.

B. If you are a student :

Name of School \_\_\_\_\_  
 School Address \_\_\_\_\_  
 Course & Year \_\_\_\_\_  
 Expected Date of Graduation \_\_\_\_\_

5. Examination (s) applied for (Please check)

Course Number	Exam Fee	
• ASP Course 1	June	Php 7,200
• ASP Course 2	December	Php 7,200
• ASP Course 3	June	Php 7,200
• ASP Course 4	December	Php 7,200

6. Have you registered for actuarial exams before?  Yes  No

7. Please indicate your ASP membership status:

- Non-member  Affiliate  Associate

8. Enter amount of examination fee (s) enclosed: P \_\_\_\_\_

**" I have read the rules and regulations contained in the ASP Examination Catalogue concerning the examination(s) for which I am applying and agree to be bound thereby."**

Signature \_\_\_\_\_ Date \_\_\_\_\_

For ASP use only: OR No. \_\_\_\_\_ I.D. No. \_\_\_\_\_

Submit on or before May 5, 2008 for June exams

Submit on or before November 3, 2008 for December exams

## CONTINUING EDUCATION PROGRAM (CEP)

(Download the latest from [www.actuary.org.ph](http://www.actuary.org.ph))

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As endorsed by the ASP Board of Governors, and ratified by the General Membership during the 4<sup>th</sup> Quarterly General Membership Meeting, during the 43<sup>rd</sup> Annual Convention held in Baguio City, last November 21-23, 2002

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Minimum Number of Required CEP credit points to be earned during the Year 2004:

- For members who have been ASP Fellows for less than 25 years: 15 points
- For members who have been ASP Fellows for at least 25 years: 9 points
- For Associates and Affiliates: 15 points

Affiliates and Associates who meet the required credit points will be entitled to membership fee discounts in the succeeding calendar year. Fellows who will meet the required credit points will be included in the List of Fellows in Good Standing Recommended for Accreditation to the regulatory bodies.

At least 50% of the credit points will have to come from formal activities as defined by the Society. Proof of Informal Activities should be submitted to the Membership Committee for proper evaluation and approval. The attached table shows examples of Formal and Informal activities. The member is requested to keep proofs or records of attendance in any activity for at least one year.

Any Fellow who fails to satisfy the required credit points may cover the deficiency in the succeeding calendar year. Such credited points, however, will no longer be counted to satisfy the required credits for the succeeding calendar year. Upon satisfaction of the deficit, the concerned Fellow may request for a special certification to any regulatory body upon payment of an accreditation fee equivalent to 50% of the applicable annual membership fee.

CEP credit points for ASP Committee Work are to be assigned by the Committee Chairmen, with approval by their Governors-in-charge. The Chairmen are requested to submit to the ASP Secretary not later than October of each year, for proper recording.

These guidelines are to be posted at [www.actuary.org.ph](http://www.actuary.org.ph)

FOR INQUIRIES: Contact the ASP Secretariat or the ASP Membership Committee at [asp@itextron.com](mailto:asp@itextron.com)

Prepared by: ASP Membership Committee  
February 23, 2004

**ACTUARIAL SOCIETY OF THE PHILIPPINES**  
**Continuing Education Program (CEP)**  
**For the Year 2004**

**FORMAL ACTIVITIES:**

1. Serve as an examiner in the ASP Examination	-	8 credit points
2. Prepare Study Notes	- max	6 credit points
3. Attend Convention of the ASP or IAA Member Association		
- sessions on core actuarial applications, per (paper) session	-	2 credit points
- sessions not on core actuarial applications, per session	-	1 credit point
4. Teach an Actuarial Subject in Graduate/Undergraduate Studies	-	6 credit points
5. Attend Actuarial Seminar or Workshop		
- sessions on core actuarial applications, credit point per session	-	2 credit points
- sessions not on core actuarial applications, per session	-	1 credit point
6. Prepare Case Study for the Fellowship Admission Session	- max	4 credit points
7. Attend Seminar or Workshop for Professional Ethics for Actuaries	-	4 credit points
8. Serve as Seminar Speaker on any Actuarial Subject, per session	-	4 credit points
9. Write Technical Paper for Publication		
- in the ASP newsletter or any journal, newspaper or newsletter	-	4 credit points
- presented in the ASP Convention	-	6 credit points
10. Pass an Examination given by the ASP or IAA Member Association	-	4 credit points
11. Pass a Graduate Subject in Actuarial Science	-	3 credit points
12. Attend a General Membership Meeting of ASP or IAA Member Association		
- with session on core actuarial applications, credit point per session	-	2 credit points
- with session not on core actuarial applications, per session	-	1 credit point
13. Active Member of an ASP Committee engaged in:		
- Technical Work	- max	3 credit points
- Non-technical work	-	1 credit point
14. Serve as Lecturer in an ASP Exam Review Session, per session	-	2 credit points,
		Maximum of 8 points

**INFORMAL ACTIVITIES:**

1. Private Reading on subject matter on Actuarial Application	-	1 credit point
2. Passing LOMA Exam in subject matter on Actuarial Application	-	1 credit point
3. Listening to recorded tapes of the Actuarial Seminars	-	1 credit point