



PRESENTATION TO ASP - THE APPOINTED ACTUARY HISTORICAL PERSPECTIVES AND FUTURE ROLE

November 2016

Reinforcing Foundations



What does an Actuary do?



Actuaries are good at calculation?

Mathematicians?
Statisticians?

Accountants
CFA

Actuaries know about finance?

Actuaries Core Competency

Actuarial Present Value

- Whole life insurance

$$A_x = \sum_{t=0}^{\infty} v^{t+1} {}_t|q_x = \frac{M_x}{D_x}$$

- n -Year term insurance

$$A_{x:\overline{n}|}^1 = \sum_{t=0}^{n-1} v^{t+1} {}_t|q_x = \frac{M_x - M_{x+n}}{D_x}$$

- n -Year endowment insurance

$$A_{x:\overline{n}|} = \sum_{t=0}^{n-1} v^{t+1} {}_t|q_x + v^n {}_n p_x = \frac{M_x - M_{x+n} + D_{x+n}}{D_x}$$

- n -Year deferred whole life insurance

$${}_n|A_x = \sum_{t=n}^{\infty} v^{t+1} {}_t|q_x = \frac{M_{x+n}}{D_x}$$

Is this what Actuaries really do?



Insurance Commission Regulation

- Sec. 337. The following documents, which are from time to time submitted to the Commissioner by a life insurance company authorized to do business in the Philippines, shall be duly certified by an accredited actuary employed by such company:
 1. **Policy reserves** and net due and deferred premiums.
 2. Statements of bases and **net premiums**, loading for gross premiums, and on **non-forfeiture values** and reserves, when applying for approval of gross premiums, reserves and non-forfeiture values.
 3. Policies of insurance under any plan submitted to the Commissioner as required by law.
 4. Annual statements and **valuation reports** submitted to the Commissioner as required by law.
 5. Financial projection showing the probable income and outgo and reserve requirements, enumerating the actuarial assumptions and bases of projections.
 6. Valuation of annuity funds or retirement plans.

The Past... What about the Future?



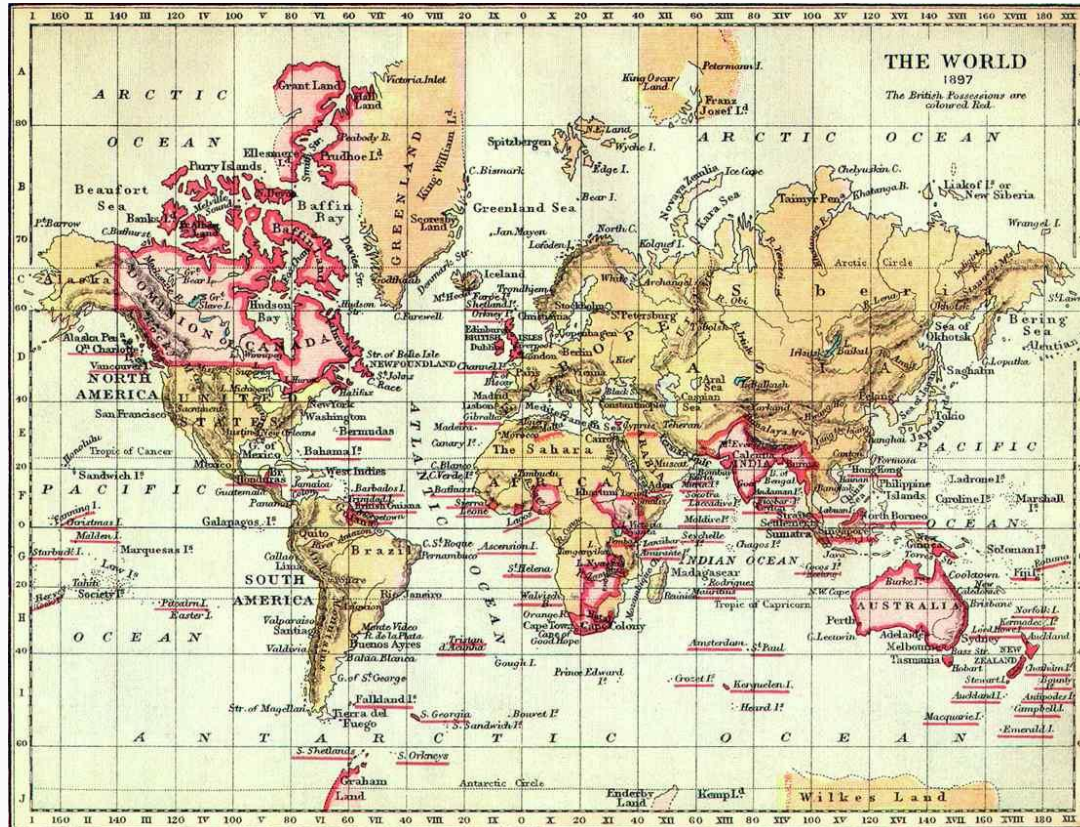
Valuation Standards Circular

- Section 1 Article 2. The methods and valuation assumptions shall: be **appropriate** to the type of business and its risk profile;
- Section 2 Article 1. An actuary duly accredited by the IC shall be responsible in determining the level of policy reserves based on his **professional valuation** of the company's life insurance liabilities using a basis **no less** stringent than that prescribed in the following paragraphs.
- Section 2 Article 6. A **more conservative basis** of valuation may be adopted by the Actuary resulting in higher policy reserves compared to the standards set out above, if, in his **professional judgment**, it is appropriate to do so.

Is this the future?

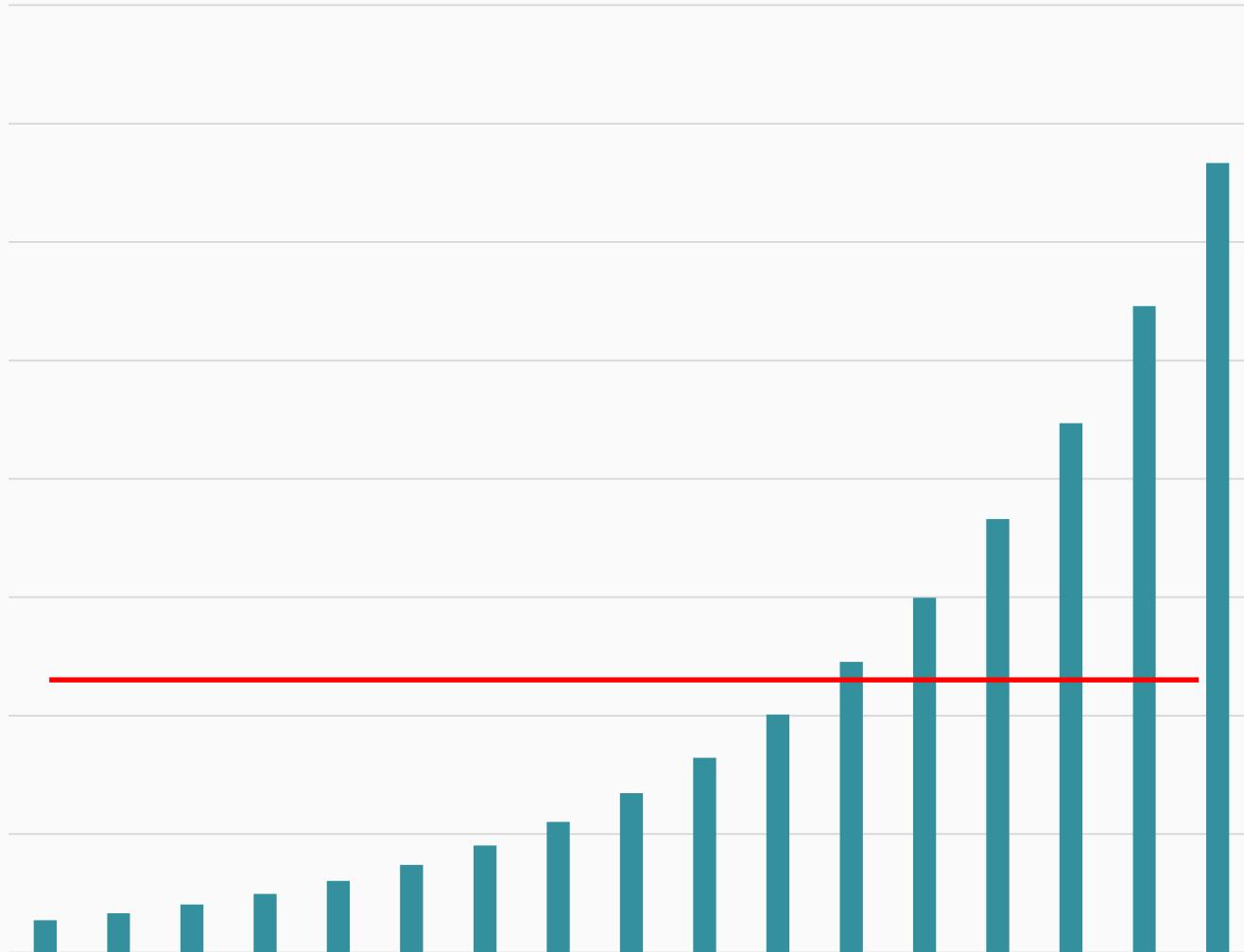


A History Lesson

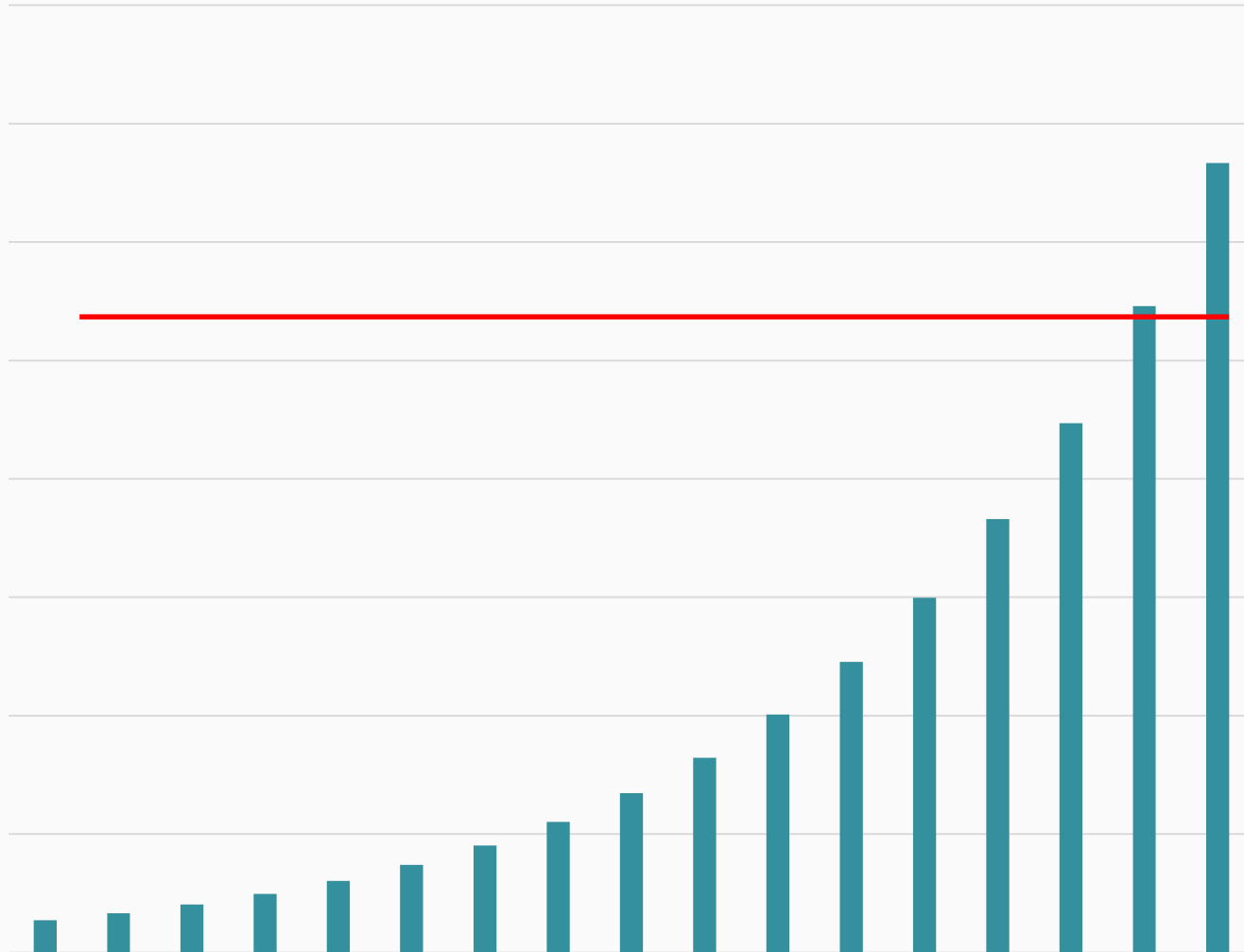


- The British Empire, late 1800s

The Theory – Net Premiums vs. Risk



The Practice – Net Premiums vs. Risk



This is not an Advertisement




- Founded in United Kingdom, 1848
- By 1898, managing assets of GBP 30 million
- Massive portion of GDP of the time – Equivalent today – GBP 30 billion (PHP 1.8 trillion)
- PHP 1,800,000,000,000
- Nice apartment downtown Makati Greenbelt - 180,000 Apartments
- Whole building! – 1000 buildings

Who is managing these funds?
THE ACTUARY!

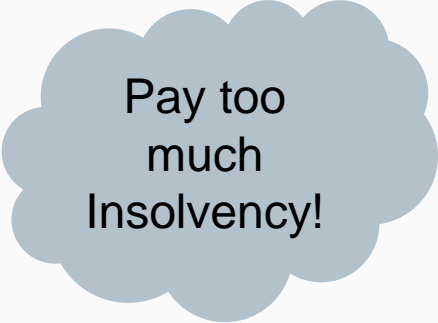
(Source: <http://www.prudential.co.uk/who-we-are/our-history>)

The “Estate”

- The “Estate” – accumulated surpluses of participating policies
 - Who generated the surpluses?
 - What should be kept to financing new business?
 - What benefit did existing policyholders have from fund
 - Equity between different generations?
 - How to allocate costs?



Pay too little
Not fair!



Pay too much
Insolvency!

Pru SG
Assets S\$15.5bn
Reserves S\$6.9bn

United Kingdom – Role of the Actuary

- **Insurance Companies Act 1974**

- Insurance Companies must have an Appointed Actuary (AA)
- AA must carry out valuation of long term liabilities
- AA must report on Financial Condition of fund

"The Appointed Actuary system is an essential part of Insurance Companies Supervision in the UK"

- **Institute of Actuaries Guidance Note 1 (GN1)**

- AA to take all reasonable steps to ensure that he was satisfied that if he were to carry out an actuarial valuation at any time, the position would be satisfactory.
- AAs to ensure, so far as was within their authority, that long-term business was operated on sound financial lines.

1979 - AA should be the CEO after many years in less senior roles

United Kingdom – there is still more!

- **Further Expansion**
 - policyholders' reasonable expectations ('PRE') on determination of bonus rates
 - the operation of unit pricing (1992)
 - Reports on future financial position of the insurer
 - Expense allocations for with-profits funds (1996)

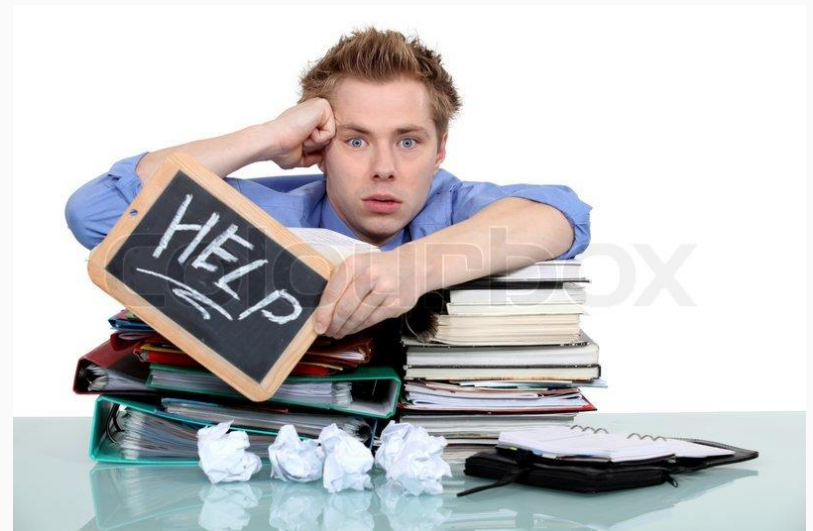
Australia – The Professional Burden

- **Life Insurance Act 1995**
 - Rules requiring an Appointed Actuary and regulations on his/her credentials.
 - Expansions through Institute of Actuaries Australia
 - Professional Standards
 - Consensus on how work should be done
 - “unprofessional to depart unless disclosed and justified”
 - Guidance Notes
 - Issued to clarify or less consensus (some are mandatory)
 - Expected to disclose any departure

Departure from PS/GN can be considered “unprofessional conduct” and subject to Disciplinary Proceedings!

Appointed Actuaries in Australia

- **Appointed Actuary Duties**
- Valuation Report
- Experience studies
- Data Controls
- Capital Adequacy / Company capital management
- Surrender values / paid up values
- Cost of G'tees
- Allocation of funds in Par Fund. Distributions and Equity

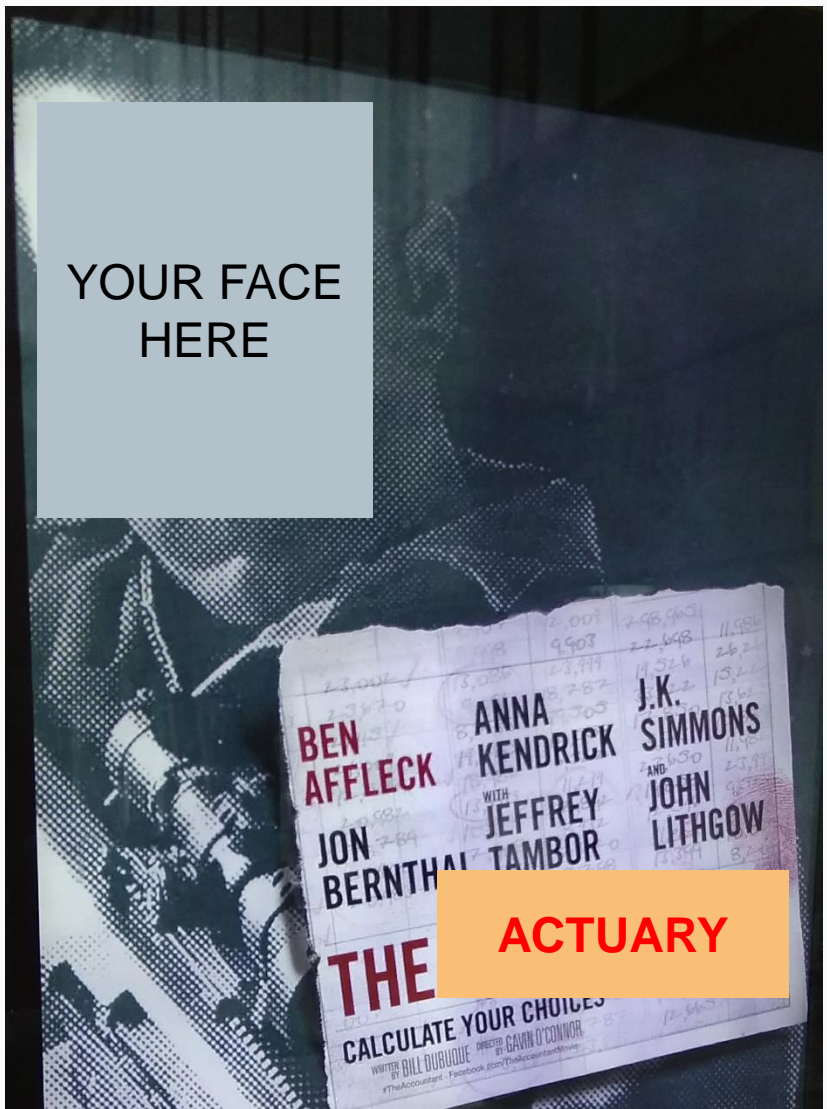


There is always more!

- Review and comment on risk framework
- Asset Liability Strategies
- Signoff on New Products
- Reinsurance Strategy
- PRE and Unit pricing
- Financial Condition Report
- 3 months after year end!



Not Reasonable to be Superman...



UK Recent Updates – Moves Away

- Board and Senior Management to take overall responsibility for actuarial aspects of business
- No more appointed actuary
- WPA – With Profits Actuary
 - Advise board on exercise of discretion on with-profits business
 - Focus on Fair Treatment of Policyholders
- AFH – Actuarial Function Holder
 - Provide technical actuarial advice
 - Individual Capital Assessments
 - Development of “Own Model” for capital assessment
 - Increased demands on modeling outputs
 - Stochastic Testing

AFH Report on
domestication of
Pru HK
161 pages!

(that was part 1)
Part 2 was **only 76**
pages

United Kingdom – Conflicts of Interest

- The rules of the FSA and its successor bodies, the Prudential Regulation Authority ('PRA') and Financial Conduct Authority, require that neither the AFH nor WPA could be chairman or chief executive nor can hold other posts that could give rise to significant conflicts of interest while, in addition, the WPA cannot be a member of the firm's governing body

Table 3. Actuaries as a proportion of directors 1990 and 2013/14

	Executive			Non-executive			All individuals		
	Total	A	A%	Total	A	A%	Total	A	A%
2014									
Listed firms	33	5	15.2%	89	12	13.5%	122	17	13.9%
2013									
Listed firms	31	1	3.2%	82	9	11.0%	113	10	8.8%
Life companies	261	48	18.4%	197	55	27.9%	456	101	22.1%
All life offices	312	51	16.3%	379	64	16.9%	689	113	16.4%
1990 (sample)									
Life companies	118	45	38.1%	138	13	9.4%	254	56	22.0%

Total = no. of directors, A = actuaries among directors, A% = actuaries as % of directors

Notes: (1) some directors were executive for one board, non-executive for another

(2) life companies also had 5 corporate directors in 2013

Australia – Review Underway

- APRA Discussion Paper (June 2016 – submissions invited now!)
- Mission Statement
- “Purpose of the Appointed Actuary role is to ensure that the board has unfettered access to expert and impartial actuarial advice and review”
- “The Appointed Actuary must have the necessary authority, seniority, and adequate support to ensure their views are considered seriously
- Delegation / Materiality
- Allow for “umbrella” advice covering similar policies
- Set up Actuarial Advice Framework which documents materiality policy
- Process for temporary appointment of Appointed Actuary

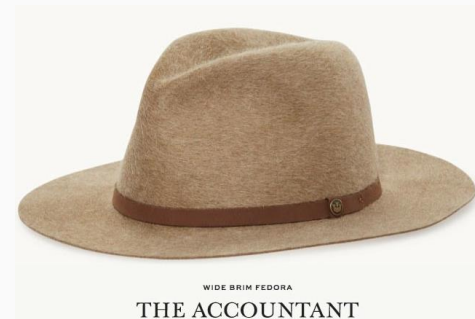
Australia – A Balancing Act

- Financial Condition Report (FCR)
- Treated like a checklist - too long and verbose
 - **“Prescriptive FCR content requirements may obscure the delivery of key messages”**
- “The FCR is intended to provide a **comprehensive overview** of the financial condition of an insurer”
- Allow more discretion on “must consider” vs. “may decide to comment”
- Still maintain list of minimum standards (actual vs expected, valuation results and commentary, etc)

Dual Hatting

- Wearing of two hats – performing two roles
- Can an Appointed Actuary be an CRO, CFO, CEO?
- CRO – “a direct conflict would arise as part of the risk management framework assessment if the Appoint Actuary is also the CRO”
- “APRA remains concerned that any dual hatting between the roles of the Appointed Actuary, CRO, Chief Executive Officer [...] would give rise to unmanageable conflicts”

“



Reinforcing Foundations



What does this all mean for Philippines?

- Bond Yields Decreasing



Future Headwinds

- Increasing Stock Market Volatility



OPEN	DAY RANGE	PREVIOUS CLOSE
7,578.96	7,576.35 - 7,668.28	7,571.15
52WK RANGE	1 YR RETURN	YTD RETURN
6,084.28 - 8,118.44	10.58%	10.30%

(Source: Bloomberg: Philippines Stock Exchange Index)

Peak to Trough -25%!

Be Prepared...



Closing Thoughts



Thank you



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