International Experience Study

Vietnam 2003-2013

Introduction

The 2015 Vietnam experience study was undertaken as a joint research venture by the Vietnam life insurance companies and the Society of Actuaries (SOA).

The study includes both mortality and persistency studies of policies in force any time during the 2003-2013 study period, however, the majority of the data is heavily concentrated in the 2008-2012 study years. Portfolio data was provided by 10 contributing companies. The portfolio consists of life insurance policies issued in Vietnam. The list of contributing companies is provided in Appendix A of this report.

The mortality portion of the study includes data from 10 companies with a total of 14,962 claims and 10.9 million policy year exposures. The lapse portion of the study includes data from 5 companies with a total of 837,011 policy lapses and 6.1 million policy year exposures.

Actual mortality was compared to expected using the SOA 1975-80 ultimate rates as the expected mortality basis. The ultimate rates of the 1975-80 table was used as the expected basis in all of the analysis below, and also in the additional supplementary information included in this package.

Each of the contributing companies prepared a policy file of all policies in force during the study period that included policy, demographic and status information. These files were processed directly by each company using the IES experience study tool and summary information was sent to the IES Working Group for compilation.

Since the data was compiled by each company, the study needs to rely on the work of the companies to ensure data quality. Nevertheless, the Society of Actuaries did review the data submissions for consistency at a high level. Although there were no known quality issues with the data used in the analysis, it is expected that data quality is likely to improve as subsequent studies are performed.

More detailed information underlying this study is provided in an accompanying Excel file. The file is included in the published study package. The file contains both mortality and lapse experience. It is in the form of a pivot table allowing for more granular analyses.

Results

The figures below provide high level study results.

It should be noted that some of the observations could be due to experience differences by company. This could not be determined because the data was not available by individual company.

Figure 1 shows the exposure by attained age to mortality risk based upon number of policy years. One policy year of exposure equals one policy in force for one year.

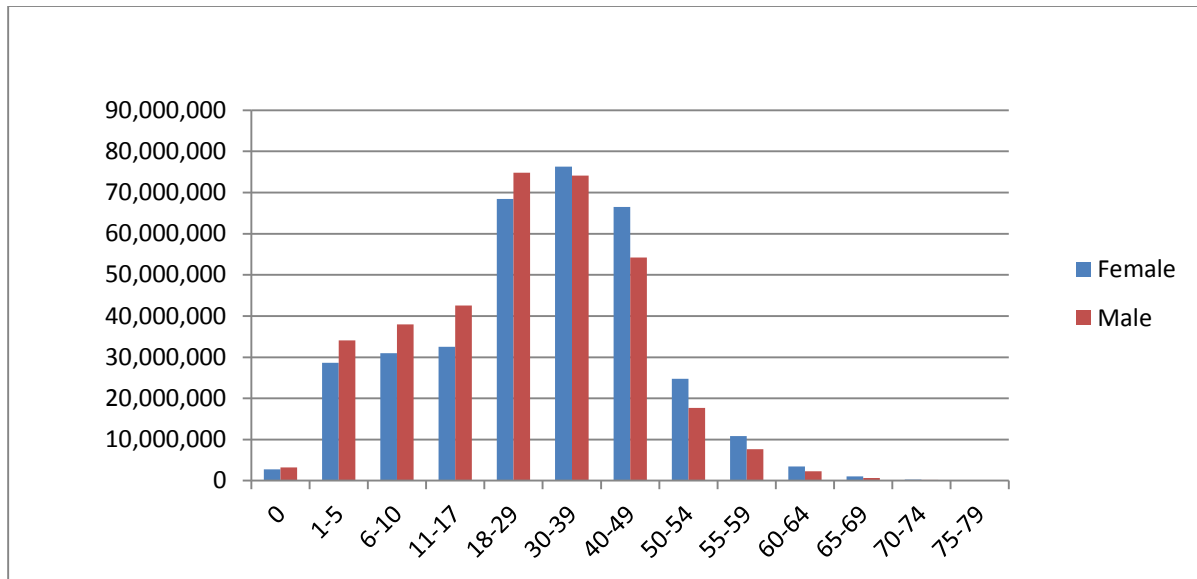**Figure 1 - Policy year exposures by attained age**

Figures 2 shows the actual to expected "by count" and "by amount" mortality ratios for males by attained age. The overall average actual-to-expected ("A/E") ratio for males is 79.9% by count and 72.9% by amount. The ratio for ages 75+ is not credible due to a lack of a sufficient number of claims.

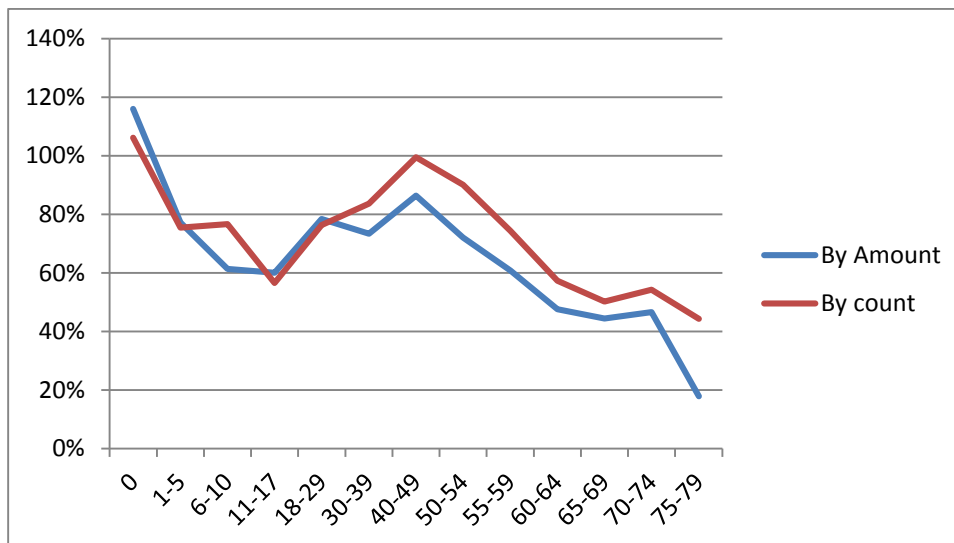**Figure 2 – Male A/E ratios by attained age (SOA 75-80 ultimate)**

Figures 3 shows the actual to expected "by count" and "by amount" mortality ratios for females by attained age. The overall average A/E for females is 32.4% by count and 29.2% by amount. The A/E ratio is fairly flat across ages 6+. The ratio for ages 75+ is not credible due to a lack of a sufficient number of claims.

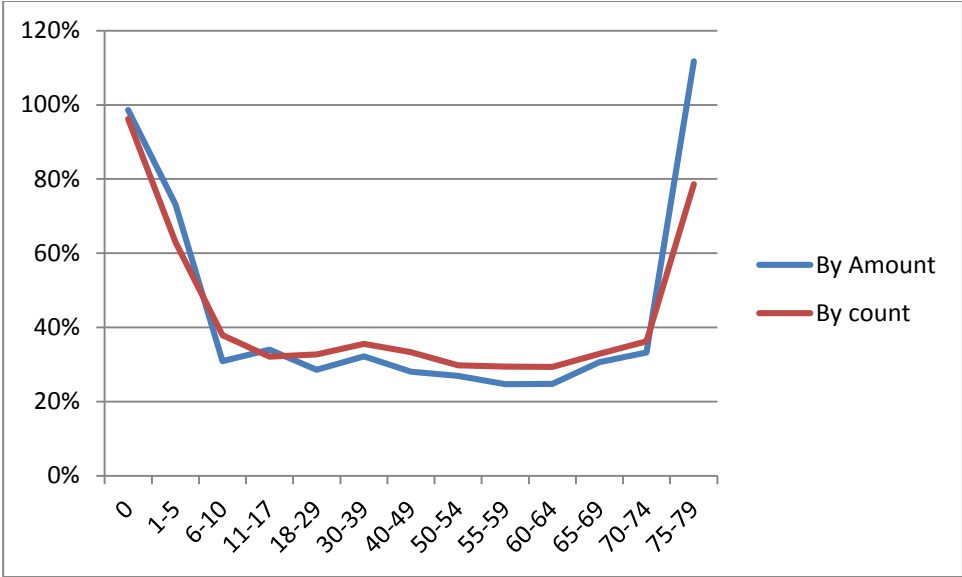**Figure 3 – Female A/E ratios by attained age (SOA 75-80 ultimate)**

The actual number of claims within each attained age range is provided in figure 4 below.
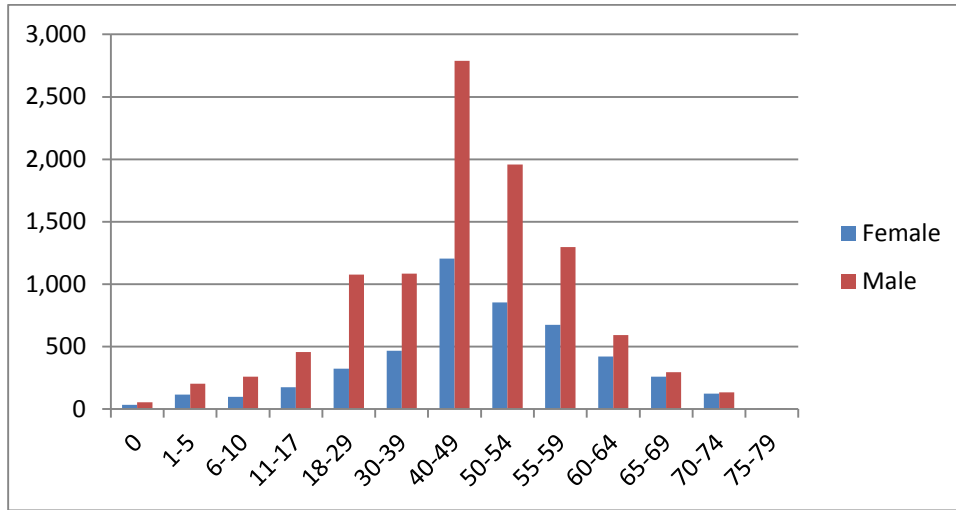
Figure 3 - Number of actual claims by attained age

Figure 5 provides the A/Es by attained age and policy year duration for males. Only the data for policies issued at ages 18 and higher are included in the figures below. The results indicate the presence of a select period in the range of at least 11-15 years at most ages. Ages 65+ are not shown because of low credibility by duration.

Figure 4 – Male A/E by attained age and duration (SOA 75-80 ultimate)

|	Policy duration						
Attained age	1	2	3	4-5	6-10	11-15	Total
18-29	88.3%	89.6%	82.4%	50.9%	70.1%	136.5%	83.4%
30-39	76.6%	89.3%	60.9%	78.1%	52.7%	46.0%	73.3%
40-49	114.1%	112.5%	72.6%	78.2%	62.9%	53.2%	86.4%
50-54	81.0%	82.8%	86.9%	76.4%	65.5%	37.4%	72.1%
55-59	62.2%	62.4%	62.9%	71.1%	59.8%	44.2%	60.8%
60-64	27.2%	57.2%	43.0%	43.8%	46.1%	64.7%	47.6%
Grand Total	**89.7%**	**93.3%**	**72.0%**	**72.6%**	**60.1%**	**48.5%**	**75.1%**

Figure 6 provides the A/Es by attained age and policy year duration for females. Only the data for policies issued to ages 18 and higher are included in the figures below. The durational pattern for females is quite different than for males. The results for duration 2 are interesting. The high A/Es corresponds to the high level of lapses at duration, as is shown later in this report. Ages 60+ are not shown because of low credibility by duration.

Figure 5 - Female A/E by attained age and duration (SOA 75-80 ultimate)

Attained age	Policy duration						
	1	2	3	4-5	6-10	11-15	Total
18-29	32.2%	38.9%	20.3%	20.0%	27.2%	20.6%	30.8%
30-39	32.9%	42.8%	37.2%	21.9%	24.4%	11.1%	32.2%
40-49	26.8%	37.2%	23.0%	25.7%	26.0%	39.8%	28.0%
50-54	21.0%	27.9%	35.9%	26.3%	28.3%	19.2%	26.9%
55-59	15.5%	27.0%	23.6%	29.8%	25.6%	19.2%	24.7%
Grand Total	**27.4%**	**35.9%**	**28.4%**	**25.6%**	**26.5%**	**23.8%**	**28.2%**

Figure 7 provides persistency results by policy duration year for insurance policies. The extremely high lapse rates for duration 2 are noteworthy. The experience for durations 13-14 is not shown due to a lack of credibility. Lapse rates for males and females are very similar. Although not shown here, the rates vary by issue age. They peak in the issue age 18-29 range, and decrease with increasing age. More detail can be obtained through the attached excel files.

Figure 6 - Lapse experience rates by duration
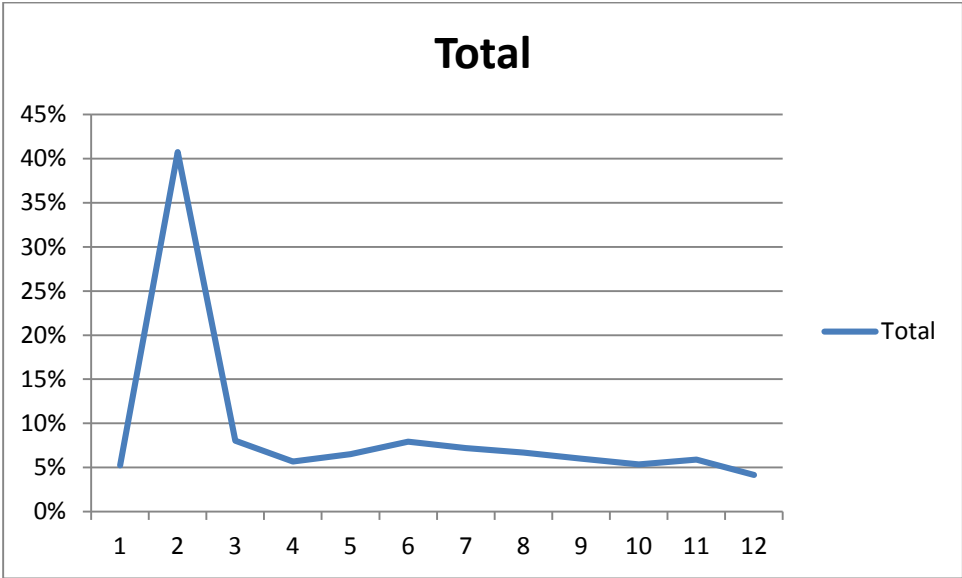
Summary

The interpretation of the results do require some caution. The data may still contain some quality issues. This is common for companies' early compilation of experience data.

Appendix A: Contributing Companies

AIA Group Limited	Cathay Life	Dai-ichi Life
Fubon Life	Great Eastern Life	Hanwha Life
Manulife Financial	Prevoir Vietnam Life	Prudential
VietinAviva		