Life Insurance Association Singapore

2012 Protection Gap Study - Singapore

End of 2011 Protection Gap

28 August 2012

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Section 1: Executive Summary

$609^{bn}

Current total insurance coverage held by economically active Singaporeans and residents

10^x

Annual salary needed to meet the Protection Need

$462^{bn}

Protection Gap in Singapore

The total life insurance coverage for economically active Singaporeans and Permanent Residents amounted to S$609 bn as at the end of 2011.

The absolute amount of Protection Need was S$1,193 bn in 2011 which translated to an overall average Protection Need of 10x an individual's annual salary. The factor of annual salary to meet the Protection Need varied significantly between the different household profiles and income levels.

The average Protection Gap of working adults was 3.7x annual income and insurance played a key role in meeting the Protection Need. The overall insurance coverage per economically active person was 5x annual salary. A further 1x annual income to meet the Protection Need was met by existing CPF Savings.

This resulted in an overall Protection Gap in Singapore as at the end of 2011 of S$462 bn.

The Protection Need is the amount of money required by dependants to cover expenses and maintain a reasonable lifestyle following the death of a member of the household. The Protection Need is only relevant for economically active adults that have at least one dependant, and is calculated for Singaporeans and Permanent Residents only

The Protection Gap is defined as the Protection Need less CPF Savings and existing insurance coverage.

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Section 2: Introduction

2.1   The Life Insurance Association ("the LIA")has engaged Towers Watson Risk Consulting Pte Ltd ("Towers Watson"), to carry out the Protection Gap study as set out in the request for proposal circulated by the Singapore Actuarial Society ("SAS") on behalf of the LIA on 25 November 2011.

2.2   This report summarises our approach to and results of the above assignment.

2.3   As we had collected detailed industry data, we have also included a section analysing the purchasing trends from the underlying data.

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# Section 3: Definition of the Protection Gap

3.1   The Protection Gap can be defined as:

> The amount of money (income and / or capital) required by dependants over a defined period (to clear outstanding debt, maintain lifestyle etc.) less existing CPF Savings and insurance coverage.

3.2   The Protection Gap is only relevant to those who are economically active and have at least one dependant.

3.3   The illustration below shows the key components of the Protection Gap in the 2012 Protection Gap study.

Figure 1: Illustration of the Protection Gap
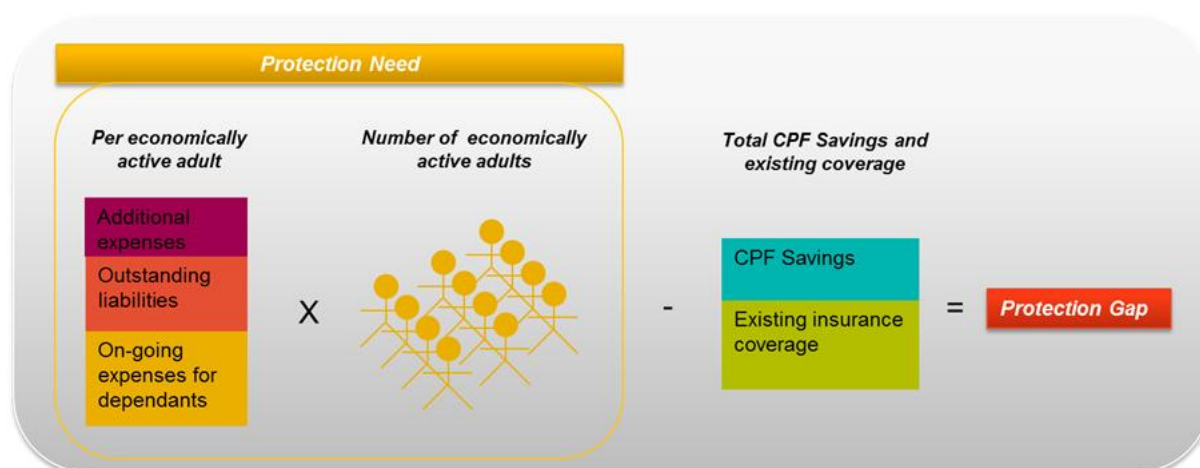
3.4   The Protection Need includes:

- Additional expenses: funeral expenses and unpaid services;

- Outstanding liabilities: personal and housing loans;

- On-going expenses for dependants: needs of the children, needs of the elderly parents and needs of the remaining adults. The remaining income from the spouse is also deducted.

3.5   Future expenses were discounted at a rate that was based on the yield on the 15 year Singapore Government Bond.

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3.6   As at 30 December 2011, the 15 year Singapore Government Bond yield rate was 2.09%[1].

Family Profiles considered

3.7   Using the Census 2010 data, we have selected key family profiles of Singaporeans and Permanent Residents to be used in the 2012 PGS between the ages of 20 to 69. The profiles used in our study are highlighted in green. The ultimate numbers in each profile are included below.

Figure 2: Family profiles
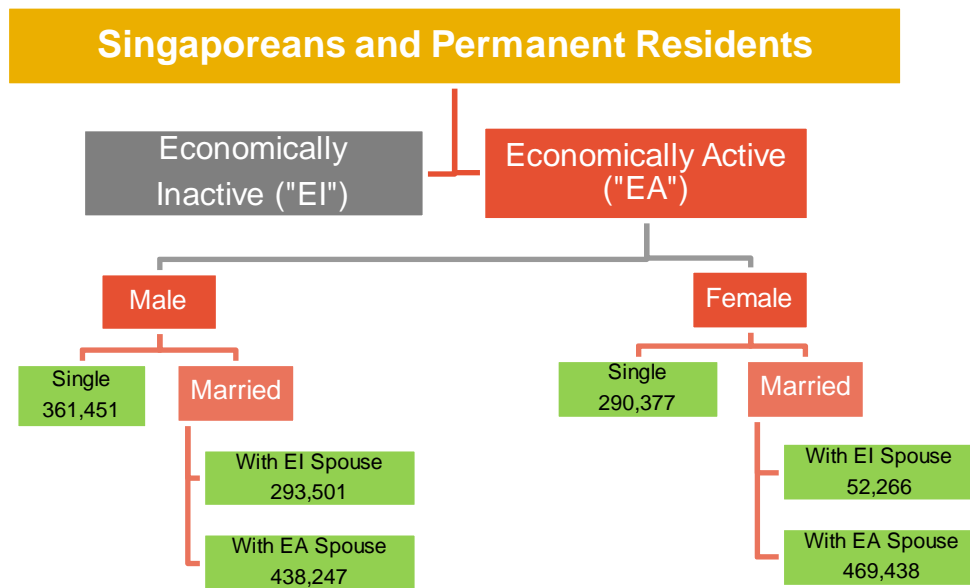
3.8   The table below summarises our methodology with respect to family profiles.

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[1] https://secure.sgs.gov.sg/fdanet/BenchmarkPricesAndYields.aspx

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Table 1: Definition of family profiles

2012 PGS Methodology

This study will focus on economically active persons including singles with dependant(s).

There is a large segment of singles with elderly dependants, especially with Singapore's aging population and decreasing marriage rates.

Approximately 40% of the resident population above 15 years old are not married[1].

Utilisation of 2010 Census

Utilised the 2010 Census data to split the population aged 20 to 69 into:
- Age bands
- Single or married
- Income quintiles
- Average number of children depending on whether the mother is economically active
- Average number of elderly dependants

The following assumptions were made:
- age setback of 2 years for the female spouse.
- elderly parents are assumed to be 25 years older.
- that the individual has the first child at age 30. Each subsequent child is assumed to have an age setback of 3 years.

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[1] Census of Population 2010 by the Singapore Department of Statistics

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Section 4: Methodology and Results

4.1   In this section, we describe the methodology used in the 2012 Protection Gap study and analyse the results of the components of the Protection Gap as at 2011.
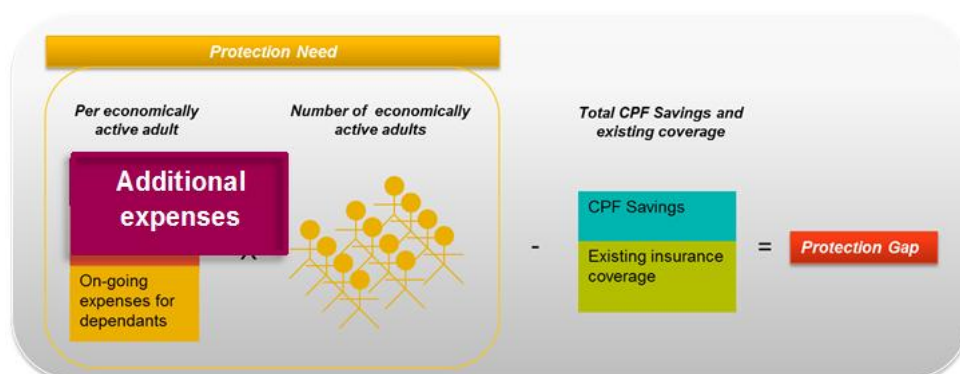
Number of economically active adults

The number of economically active adults in Singapore was 1,905,278 as at the end of 2011.

4.2   The number of economically active adults as at the end of 2011 was estimated to be 1,905,278 persons. We have applied the proportion of economically active to the number of Singaporeans and Permanent Residents within each age band.

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Protection needs per economically active adult – Additional expenses

4.3   Additional expense protection needs consists of funeral costs and unpaid services.

Funeral Costs

The average funeral cost is about S$10,000.

4.4   Our desktop research[1] on the cost of a funeral suggests that the cost of a funeral would be about S$10,000.

4.5   The resulting total protection need for funeral expenses is S$19.0 bn.

Table 2: Protection Gap – Funeral expenses

	2012 PGS
Funeral Cost (S$) per Economically Active Adult:	10,000
Number of Economically Active Adults	1,905,278
Grand Total (S$ bn)	19.0

The total protection need for funeral expenses is S$19.0 bn.

Unpaid Services

4.6   Each individual in the household provides a certain amount of manpower in maintaining the living standards of a household. Some contributions of the individual include carrying out household chores and accompanying children or dependants. As it is difficult to quantify a person's time in providing this support, we have approximated this using the cost of a domestic helper.

[1] http://www.income.com.sg/restinpeace/index.asp
http://www.casketfairprice.com/index.htm
http://www.nea.gov.sg/passesaway/burial.htm

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4.7   Our 2012 Protection Gap study values the unpaid services using an approach that is based on the cost of a part-time maid.

4.8   We have further projected the need for unpaid services to the end of the life expectancy of the dependants as even after retirement, the economically active adult would have been expected to contribute manpower to the household.

Cost of a Part-time helper

4.9   The annual cost of a part-time helper has been estimated to be S$5,616 per annum based on the following:

Table 3: Annual cost of a part-time helper

Description	Amount	Comments
Average per hour cost	S$12	The cost of a part-time helper ranges from $$10 per hour to S$15 dollars an hour if hired by an employment agency[1]. An average cost of $12 has been assumed.
Number of hours per week	9 (allows for 1 hour per day on week days and 2 hours per day on weekends.	
Number of weeks per year	52	
Annual cost	**S$5,616**	

Table 4: Present value of unpaid services per economically active adult

|	2012 PGS
Present value of unpaid services per economically active adult (S$)	198,925
Number of Economically Active Adults	1,905,278
Grand Total (S$ bn)	379.0

The present value of unpaid services is S$198,925 per economically active adult on average

The total protection need for unpaid services is S$379.0 bn.

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[1] http://www.entersingapore.info/expat-lifestyle/employ-maid.php

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Protection needs per economically active adult – Outstanding liabilities
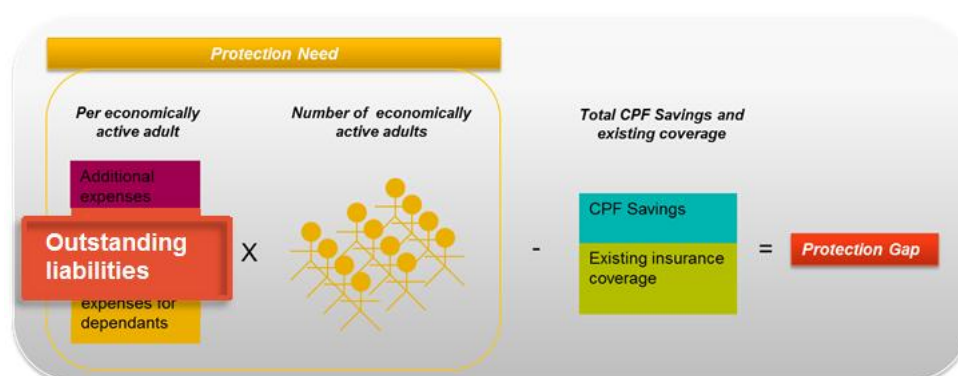
Outstanding Liabilities

4.10   The total personal and housing loans are based on the 2009 Household Balance Sheet published by the Department of Statistics. As at the end of 2008 the total personal and housing loan amounts were S$49.3 bn and S$130.2 bn respectively.

4.11   The total personal loan as a proportion of total personal disposable income derived from the HES 07/08 is 123%.

4.12   As the total housing loans reflected in the 2009 Household Balance Sheet included loan holdings by foreigners, the value of loans on private property was reduced to 71%, based on the proportion of Singaporean households living in private property to the total number of private properties in Singapore. The net amount of housing loans as a proportion of total personal disposable income derived from the HES 07/08 is 331%.

Personal and housing loans

4.13   The amount of personal and housing loans have been estimated using the Household Sector Balance Sheet[1].

Table 5: Household sector balance sheet

Household sector balance sheet (S$)						
	2000	2004	2005	2006	2007	2008
Mortgage Loans	*102,425*	*118,309*	*119,340*	*118,714*	*126,287*	*130,173*
Financial Institutions	43,138	60,897	64,384	65,929	76,007	82,573
HDB	59,288	57,411	54,956	52,785	50,280	47,601
Personal Loans	*36,884*	*41,147*	*41,637*	*41,894*	*46,221*	*49,305*
Motor Vehicle Loans	13,796	15,224	15,777	15,815	16,559	17,285
Credit / Charge Cards	2,551	3,554	3,816	4,200	4,755	5,522

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[1] http://www.singstat.gov.sg/pubn/reference/yos11/statsT-finance.pdf

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| Others | 20,538 | 22,368 | 22,044 | 21,879 | 24,907 | 26,499 |

Source: Table 16.15 in the Yearbook of Statistics 2011, Department of Statistics, Singapore

Table 6: Private housing owned by Singaporeans.

Singaporean and resident occupied private housing	202,060
Total number of private properties in Singapore	284,748
% owned by residents	71%

Source: Table 1, Census 2010. Resident Households by Type of Dwelling, Household Size and Tenancy; Table 11.1 in the Yearbook of Statistics 2011, Department of Statistics, Singapore

Table 7: **Protection Gap – Outstanding personal and housing loans**

	2012 PGS
Average outstanding loans (S$) per Economically Active Adult	125,271
Number of Economically Active Adults	1,905,278
Grand Total (S$ bn)	238.7

The outstanding personal and housing loans was S$125,271 per economically active adult on average.

The total protection need for outstanding personal and housing loans is S$238.7 bn.

Protection needs per economically active adult – On-going expenses for dependants
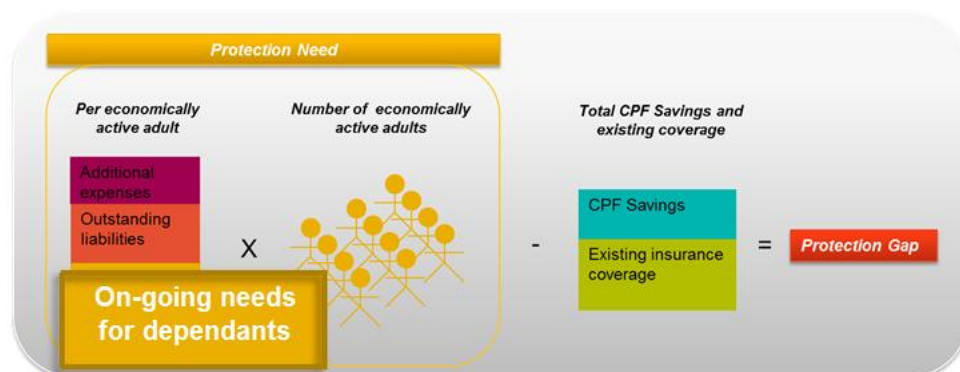
4.14   The on-going expenses for dependants include:

- Needs of the children;

- Needs of elderly parents;

- Needs of the surviving adults, and

- Deducts the remaining household income.

Needs of the Children

4.15   As described in the table below, we have taken a granular approach to estimating the needs of the children. The children's ages are dependent on the age of the mother.

Table 8: Needs of the children estimation methodology

2012 PGS Methodology

• Cost of necessary expenses
    o Varying with age and stage of education of child
    o Payable up to age 23

• Cost of university tuition fee   o Payable when child is from the fourth or fifth income quintile from ages 19 to 22 inclusive.
• Granular assumptions about the average number of children for each profile and assume a 30 year age setback for the first child's age and 3 year setback for each subsequent child from the first child's age. For profiles where the mother is younger than age 30, all children are assumed to be age 0 at the beginning of the projection.
• Children are assumed to be dependent on the economically active parent until he or she enters the workforce. This varies depending on whether the child enters a polytechnic or university etc.
• An inflation rate of 2.7% per annum was assumed for all children needs.

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4.16   Note that the financial needs of the children are determined for each household and it is assumed that the total need is covered by each economically active adult. The need is not spread between the number of economically active adults in each household.

4.17   The average number of children per profile has been calculated based on the Census 2010 data and varies based on economic activity status of the mother.

Table 9: Estimated needs for a child at each life stage (amounts in S$)

Life stage	Age of the child at the start of each stage	Duration (years)	Annual needs in 2006 dollars	Annual needs in 2011 dollars (A)	Annual Tuition Fees (B)	Total Annual Cost (A) + (B)
Infancy	0	4	4,500	5,310	0	5,310
Pre School	4	3	2,500	2,950	1,371	4,321
Primary	7	6	4,000	4,720	132	4,852
Secondary	13	4	5,000	5,900	420	6,320
Polytechnic	17	3	6,500	7,670	1,933	9,603
Pre University	17	2	6,500	7,670	869	8,539
ITE	17	2	6,500	7,670	600	8,270
University	17	4	8,000	9,440	7,049	16,489

Source: The annual needs of a child have remained unchanged from the 2006 Study and the 2007 Update. The annual needs of the child have been inflated to 2011 dollar values by applying an inflation rate of 3.4% per annum.

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4.18   The probabilities of a child selecting each of the education options at age 17 are set out in Table 10 below.

Table 10: Education options at age 17

Option	Probability
1 Secondary > Workforce	0.048
2 Poly > Workforce	0.437
3 ITE > Workforce	0.145
4 Pre U > University > Workforce	0.322
5 Poly > University > Workforce	0.048

Table 11: Protection Gap – Needs of the children

	2012 PGS
Average cost per year (S$)	4,321 - 16,489
Present value of needs of children per household (S$)	78,091
Number of Economically Active Adults	1,905,278
Grand Total (S$ bn)	148.8

The average present value of children's needs is S$78,091.

The total present value of children's needs is S$148.8 bn.

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Needs of Elderly Parents

4.19   Based on the 2010 Census, the average number of senior citizens which required financial support out of the total number of senior citizens was 63%, or 0.19 per household. Where an elderly person is living together with other members of a household, the additional cost is included in the total household expenses and included in the needs of surviving adults.

4.20   We have therefore employed the approach to consider only the elderly who are financially dependent on the economically active adult.

Table 12: Needs of the elderly parent estimation methodology

2012 PGS Methodology
• Utilised statistics from the 2010 Census data to determine the proportion of elderly dependent on their children for income and the National Survey of Senior Citizens 2005 to determine the average income required by senior citizens at different ages. Details on the average income assumed for senior citizens are set out in Appendix D.   • Elderly parents were assumed to be the higher of age 65 or 25 years older than the economically active adult.   • Payable until life expectancy of the elderly.   • The projected needs of elderly dependants are assumed to be inflated at the wage inflation rate of 4.1% per annum.

4.21   Table 13 and Table 14 respectively set out the distribution of monthly income of senior citizens and the number of senior citizens who are dependent on their children as their main source of income. Monthly income for senior citizens based on the 2005 study has been inflated to 2011 dollars based on a wage inflation rate of 4.5% per annum.

4.22   Note that the financial needs of the dependent elderly are determined for each household and it is assumed that the total need is covered by each economically active adult. The need is not spread between the number of economically active adults in each household.

4.23   The average number of elderly dependents per profile has been calculated based on the Census 2010 data. As set out in Table 13, the total number of elderly dependent an economically active person was 216,030.

Table 13: Resident population aged 65 years and over by main source of financial support and gender

Main Source of Financial Support	Total	Males	Females
Total	344,069	151,541	192,528
Allowances Given by Children	216,030	75,675	140,355
Allowances Given by Spouse	11,048	2,469	8,579
Income from Employment/Business	42,428	30,664	11,764
Savings/Interests Earned	36,757	20,846	15,911
Income from Rental/Dividends/Annuity/Trusts	10,022	5,230	4,792
Other Sources	27,784	16,657	11,127

Source: Table 27, Census 2010.

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4.24   For the purposes of the 2012 PGS, the elderly dependent is assumed to be a female with a life expectancy of 86.5 years[1]. The cost of providing for the needs of an elderly parent is assumed to be comparable to the monthly income of a senior citizen as based on the 2005 National Survey of Senior Citizens. This income level has been inflated to 2011 using a wage inflation rate of 4.5% per annum.

Table 14: Distribution of monthly income for senior citizens by age bands

Monthly Income (All Sources)	Total	55 to 64 years	65 to 74 years	75 & above
Total	100	100	100	100
None	1.9	0.7	1.2	6.7
Less than $500	36.2	25.3	44.1	55.8
$500-999	32.3	33.1	35	24.9
$1,000-1,999	20.6	28.2	14.2	8.7
$2,000 and above	9	12.6	5.5	3.9
Weighted monthly income (2005, S$)		1,051	723	554
Weighted monthly income (2011, S$)		**1,365**	**940**	**720**

Source: 2005 National Survey of Senior Citizens by Ministry of Community Development, Youth and Sports and Towers Watson calculations

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[1] The llife expectancy of female elderly dependents is based on 2010 Key indicator by the Department of Statistics, Singapore. http://www.singstat.gov.sg/stats/keyind.html

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Table 15: Protection Gap – Present value of elderly parents' needs

	2012 PGS
Average cost per year (S$)	8,640 - 16,380
Present value of needs of elderly parents per household (S$)	35,779
Number of Economically Active Adults	1,905,278
Grand Total (S$ bn)	68.2

Needs of surviving adults

4.25   In this report, we have used a methodology for the needs of surviving adults that is based on a projection of household expenses.

4.26   Major medical expenses have not been considered specifically, although this may form part of the average monthly expenses to support the dependants. By projecting total household expenses, some allowance is made for other economically inactive adults in the household e.g. unemployed siblings. Future housing costs relating to rental expense are estimated by projecting imputed rental expense by tenants which was set out in the HES 07/08.

Table 16: Needs of the surviving adults' estimation methodology

2012 PGS Methodology
• Average household expenditure with adjustments made to exclude imputed rent, educational expenses, annual expenses for children and expenses for the elderly is projected with inflation of 2.7% per annum.
• A further factor was applied to the adjusted average household expenditure depending on the family profile. The factors are shown in Table 17 below.
• Average imputed rental expense for tenant occupied properties was projected with housing inflation of 3.27% per annum.
• Needs of the surviving spouse will be projected until his/her life expectancy or to the end of the life expectancy of elderly dependants for singles.
• Imputed rent for tenants is projected separately at the housing inflation rate of 3.3% per annum.

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Table 17: Factor adjustments based on family profiles

Family profile	Reason for adjustment	Household expense adjustment factor	Comments
Marital status	To reduce the future household expenses given that the individual that has passed away no longer incurs future expenses.	Single: 23%	For singles, it is assumed that on average an EA individual will support 0.3 other economically inactive / sideward or elderly dependent. Household expenses have therefore been reduced to 0.3/1.3 = 23%.
		Married: 70%	Based on the HES 2007, the average household spend per member relative to the total household expenditure is 30%. Hence for married households, we have reduced household expenditure to 70% of the household expenses.
Economic activity status of the spouse	To allow for differences in spending pattern depending on whether households have single or double income.	Economically active spouse (i.e. double income household): 116%	Based on the HES 2007, households with two working persons incurred household expenses 16% higher than the average.
		Economically inactive spouse (i.e. single income household): 80%	Based on the HES 2007, households with one working person incurred household expenses 20% lower than the average.

4.27   Needs of surviving adults are made up of two components, 1) future household expenses and 2) future housing costs for tenants.

Future household expenses

4.28   Future household expenses have been derived based on the average household expenditure from the Household Expenditure Survey 2007/2008 published by the Singapore Department of Statistics. The expense figures have been inflated from 2008 to 2011 by applying the historic general expense inflation rate of 2.7% per annum. Adjustment factors described in this section have also been applied to the average household expenses as set out in Table 18.

4.29   The net household expenses have been reduced by imputed rent, education services, children expenses and senior citizen expenses. This is because these expense items have been separately calculated in other components of the protection need. Details on how the children and senior citizen expenses have been calculated are described below.

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Table 18: Net household expenses by age group and income quintiles inflated to 2011 values

		Age Group of Main Income Earner (Years)									
	Total	Below 25	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 & Over
Total	3,092	2,597	3,501	3,743	3,534	3,000	3,080	2,925	3,281	2,636	1,440
1st - 20th	1,344	1,129	1,522	1,627	1,536	1,304	1,339	1,271	1,426	1,146	626
21st - 40th	2,338	1,964	2,648	2,831	2,673	2,269	2,330	2,212	2,482	1,994	1,089
41st - 60th	2,983	2,506	3,378	3,611	3,410	2,895	2,972	2,822	3,166	2,544	1,390
61st - 80th	3,782	3,177	4,283	4,579	4,323	3,670	3,768	3,578	4,014	3,225	1,762
81st - 100th	5,010	4,208	5,673	6,064	5,726	4,861	4,991	4,740	5,317	4,271	2,334

Estimation of monthly children expenses

4.30   Based on the annual needs of a child as set out above, the annual need of a child was on average S$6,416 in 2011. The following adjustments were made to estimate the average monthly expense for children.

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Table 19: Annual needs of a child

Average children expenses (S$)	
2011 average annual needs as set out in Table 9	6,416
2011 average monthly needs	535
2008 average monthly needs (deflation of 2.7% per annum is applied for 3 years)	494
Total number of children that are unmarried (based on Census 2010 information)	918,159
Total number of households in the HES 2007/2008 survey	1,091,399
Average per household children expense	415
Rounded to nearest 10 dollar	**420**

4.31   The trend of educational services expense by income quintile and age band was then used to proportion the average children expense across profiles. Children monthly expenses are therefore calculated to be 420/235 or 178% of the educational services expense across profiles.

Estimation of elderly parents expenses

Table 20: Average elderly parents expenses

Average elderly parents expenses (S$)	
2011 average monthly income of senior citizens	1,009
2008 average monthly income (deflation of 4.5% per annum is applied for 3 years)	885
Total number of elderly dependent on their children as the main source of income	216,030
Total number of households in the HES 2007/2008 survey	1,091,399
Average per household elderly expense	175
Rounded to nearest 10 dollar	**180**

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Future housing costs

Table 21: Monthly imputed rent by tenants by age group and income quintiles inflated by housing inflation of 3.3% per annum from 2008 to 2011[1]

		Age Group of Main Income Earner (Years)									
	Total	Below 25	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 & Over
Total	78	85	108	123	106	85	62	39	38	31	57
1st - 20th	18	85	108	123	106	85	62	39	38	31	57
21st - 40th	23	19	24	28	24	19	14	9	9	7	13
41st - 60th	54	25	32	37	31	25	19	12	11	9	17
61st - 80th	81	59	75	85	73	59	43	27	26	22	40
81st - 100th	216	88	112	128	110	88	65	40	40	32	60

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[1] The monthly imputed rent by tenants shown above is per total Singapore households, not per tenanted household. This explains relatively low amounts in the table.

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The average present value of future needs of remaining adults is S$925,257 per economically active adult.

The total present value of future remaining adults' needs is S$1,762.9 bn.

Table 22: Protection Gap - Present value of remaining adults' needs

	2012 PGS
Average cost per year (S$)	0 - 63,419
Housing costs for tenants per Economically Active Adult (S$)	42,212
Average remaining adults' needs per Economically Active Adult (S$)	883,045
Total per Economically Active Adult (S$)	925,257
Number of Economically Active Adults	1,905,278
Grand Total (S$ bn)	1,762.9

Protection Needs before Future Remaining Household Income

4.32   The main component of the Protection Needs before Future Remaining Household Income (ie the Household Needs), is the Needs of the Remaining Adults. This is shown graphically below.

Figure 3: Protection Needs before Future Remaining Household Income

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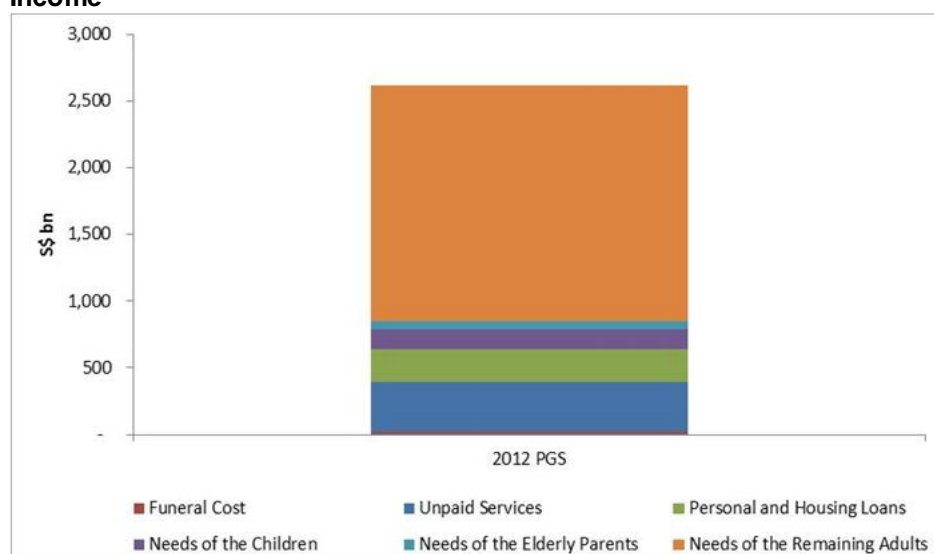
Remaining household income

4.33   We have calculated the nominal household income as this is consistent with all other needs which were determined on a nominal basis.

Table 23: Remaining household income estimation methodology

2012 PGS Methodology
• Remaining future household income is assumed to be zero if the spouse is economically inactive or if the family profile is for singles.
• For double income families, the household income is assumed to split between the male (58%) and female (42%) income earners.
• Future household income is expected to be earned up to retirement age of 65.
• We have calculated the present value of the nominal remaining income as opposed to the real income as all other needs were determined on a nominal basis.

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Remaining household income

Table 24: Average monthly household income by age group of main income earner (S$)

		Age Group of Main Income Earner (Years)									
	Total	**Below 25**	**25 - 29**	**30 - 34**	**35 - 39**	**40 - 44**	**45 - 49**	**50 - 54**	**55 - 59**	**60 - 64**	**65 & Over**
2008	7,440	4,472	7,364	8,689	9,429	7,628	8,757	7,201	7,322	5,460	1,881
2011	8,482	5,098	8,395	9,905	10,749	8,696	9,983	8,209	8,347	6,224	2,144

Source: Table 11, HES 2007/2008. Notes: 2011 figures have been derived by inflating 2008 figures by the historic wage inflation of 4.5% per annum

Table 25: Average monthly household income by income quintile (S$)

		Income quintile				
	Total	**1st - 20th**	**21st - 40th**	**41st - 60th**	**61st - 80th**	**81st - 100th**
2008	7,440	1,274	3,476	5,480	8,495	18,472
2011	8,482	1,452	3,963	6,247	9,684	21,058

Source: Table 30, HES 2007/2008. Notes: 2011 figures have been derived by inflating 2008 figures by the historic wage inflation of 4.5% per annum

Adjustment factors applied into household income

4.34   Adjustment factors have been applied to the average household income depending on the profile of the individual (i.e. single or double income family and gender). The first factor adjusts the average household income based on the number of working people while the second factor proportions the household income between the male and female income earners for double income households.

Factor 1: Adjustment for the number of working people in the household

4.35   To adjust for the average household income based on the number of working persons, the Census 2010 data was used. This estimated weighted average household income figures by Towers Watson is not comparable to the household income data provided in the HES 2007/2008 study as there is insufficient information on the monthly household income for individuals earning more than S$15,000. The key information that is being utilised is the ratio of average household income for households with one and two working people relative to the average.

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Table 26: Monthly household income based on Census 2010 data by number of working persons

Monthly Household Income from Work ($)	Mid-point monthly household income	Total	No Working Person	1 Working Person	2 Working Persons	3 Working Persons	4 Working Persons	5 or More Working Persons
Total		1,145,920	120,010	410,078	424,152	132,195	46,528	12,956
No Working Person		120,010	120,010	-	-	-	-	-
Below 1,000	0	42,762	-	40,689	2,015	52	6	-
1,000 - 1,499	500	43,244	-	37,369	5,730	138	6	-
1,500 - 1,999	1,250	50,288	-	38,208	11,398	657	19	6
2,000 - 2,499	1,750	53,946	-	36,660	15,424	1,754	96	13
2,500 - 2,999	2,250	52,560	-	31,892	17,726	2,699	243	-
3,000 - 3,499	2,750	56,023	-	31,091	20,680	3,909	330	12
3,500 - 3,999	3,250	50,614	-	23,259	21,403	5,289	644	19
4,000 - 4,499	3,750	51,441	-	21,545	22,635	6,251	941	68
4,500 - 4,999	4,250	46,558	-	16,358	22,211	6,752	1,124	113
5,000 - 5,999	4,750	89,160	-	28,391	42,667	14,617	3,149	335
6,000 - 6,999	5,500	75,516	-	19,023	37,297	14,402	4,274	520
7,000 - 7,999	6,500	64,373	-	14,044	31,755	13,000	4,753	822
8,000 - 8,999	7,500	54,902	-	12,010	26,219	10,765	4,905	1,003
9,000 - 9,999	8,500	44,259	-	8,286	21,916	8,855	4,174	1,028
10,000 - 10,999	9,500	38,857	-	8,538	18,199	7,374	3,521	1,225
11,000 - 11,999	10,500	29,771	-	5,380	14,878	5,542	3,010	961
12,000 - 12,999	11,500	25,340	-	4,871	12,690	4,546	2,262	972
13,000 - 13,999	12,500	20,110	-	3,593	10,054	3,581	1,964	919
14,000 - 14,999	13,500	17,175	-	2,972	8,729	3,029	1,710	735
15,000 & Over	14,500	119,011	-	25,899	60,524	18,983	9,399	4,205
Weighted average		**6,847**		**4,714**	**7,847**	**8,590**	**10,159**	**11,961**

Source: Table 35, Census 2010 and TW estimates

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Table 27: Weighted average household income based on Census 2010 data

	S$	as a % of total
Total	6,847	
1 working person	4,714	69%
2 working persons	7,847	115%

4.36   For singles and married individuals with economically inactive spouses, the average household income was reduced to by 31%. For married individuals with economically active spouses, the average household income was increased by 15%.

Factor 2: Proportioning household income between the male and female for double income households

Table 28: Split of average household income by gender

	Average monthly earnings per employee				
Year	Male	Female	Total	% Male	% Female
2006	4,081	2,966	7,047	58%	42%
2007	4,335	3,148	7,483	58%	42%
2008	4,560	3,332	7,892	58%	42%
2009	4,436	3,247	7,683	58%	42%
2010	4,686	3,434	8,120	58%	42%

Source: Table B2, Singapore Yearbook of Manpower Statistics, 2011

4.37   Based on the above statistics, it was assumed that household income for double income profiles were split between male and female in a 58:42 ratio.

Table 29: Protection Gap – Present value of spouse's income
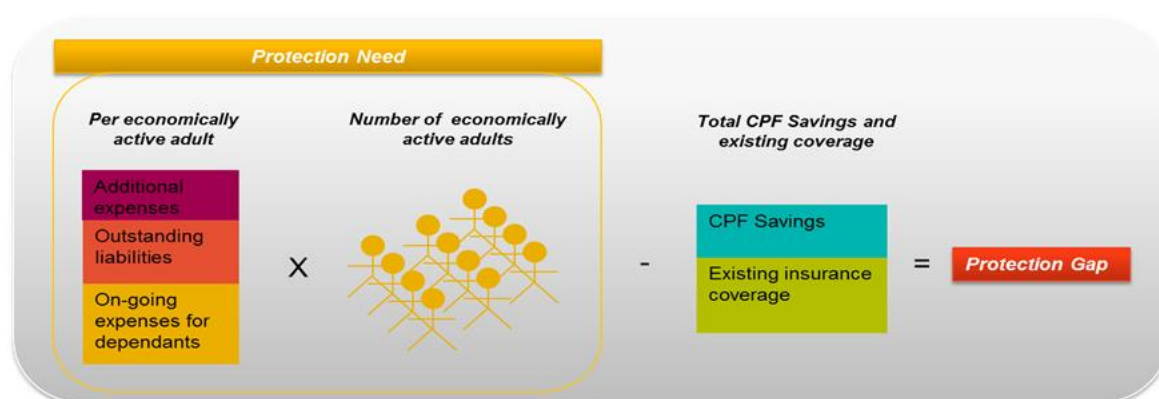
	2012 PGS
Average income per year (S$)	0 - 211,805
Present value of the spouse's income (S$)	909,198
Number of Economically Active Adults	1,905,278
Grand Total (S$ bn)	1,732.3

The average present value of spouse's income is S$909,198 per economically active adult.

The total present value of spouse's income is S$1,732.3 bn.

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Section 5: Protection Need and Protection Gap

Protection Need

5.1   The table below summarises the Household and Protection Needs.

Table 30: Household and Protection Needs

(S$ bn)	2012 PGS
Funeral Cost	19.1
Unpaid Services	379.0
Personal and Housing Loans	238.7
Needs of the Children	148.8
Needs of the Elderly Parents	68.2
Needs of the Remaining Adults	1,762.9
Household Needs	2,616.6
LESS: Remaining Spouse's income	1,732.3
Protection Need before zeroisation of negative results	884.3

5.2   The above Protection Needs were calculated by each family profile. For some profiles, the Protection Need was negative. This meant that the Remaining Spouse's income was more than enough to meet the household needs. Family profiles with negative Protection Needs occurred in higher income quintiles and had two economically active adults or older singles who are not likely to have many dependants.

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The total Protection Need is S$1,192.7 bn.

5.3   We have set the negative Protection Needs to zero in order to partially eliminate cross-subsidies between those with excess income and those who have a Protection Need. The table below shows the adjusted Protection Need after this zeroisation.

Table 31: Protection Needs after zeroisation

(S$ bn)	2012 PGS
Protection Need	884.3
Zeroised negative Protection Need	308.4
Protection Need after zeroisation	1,192.7

Total CPF Savings and existing coverage
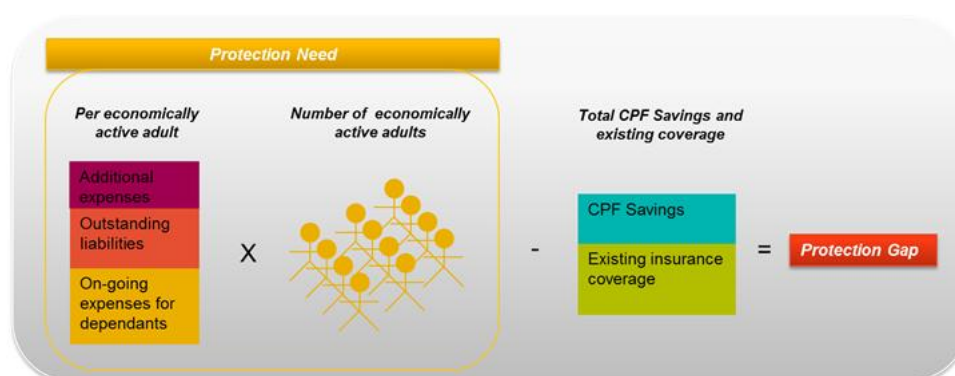
5.4   To calculate the Protection Gap, we have deducted existing CPF Savings and insurance coverage.

5.5   We have excluded assets in foreign currency, cash, stocks, shares, property and any overseas investments. The Protection Gap is therefore before allowing for such financial assets.

5.6   For the 2012 PGS, we have collected insurance coverage information from all major insurers in Singapore and our total coverage reconciles well with the industry statistics reported by the LIA. This reconciliation is shown in Appendix F.

5.7   We have approximated the insurance coverage for the economically active adults by using the DPS data as a proxy as these insured individuals, by definition, have a CPF account. We first defined the DPS insured individuals as those who have Term Insurance with a sum assured of S$46,000 to S$53,850. 1,840,383 lives aged 20-69 were within this range. This compared well with the 1,923,090 DPS policies reported in the LIA statistics. The sum assureds corresponding to these lives insured were then included in the Protection Gap analysis. This adjustment reduced the individual sum assured by 17%.

5.8   We have also capped the total sum assured per person based on the maximum Protection Need assessed for each age band and gender to

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partially reduce cross-subsidies from those who are over-insured at a level higher than the estimated needs. The sum assured was capped for individual private insurance individuals. The higher amount of insurance may reflect the specific needs of that individual or household.

Table 32: CPF Savings and existing insurance coverage estimation methodology

CPF Savings and existing coverage
2012 PGS Methodology

- Include CPF Savings.
- The insurance coverage available to meet the Protection Need in the Protection Gap calculation has been adjusted to only allow for economically active lives ranging from ages 20-69.
- To partially remove the impact of cross-subsidy from a person who is over-insured, we have capped the sum assured for each person to the levels indicated in
- Table 33.

Table 33: Individual sum assured caps by gender and by age band (S$)

Age band	Male	Female	Age band	Male	Female
20 - 24	3,700,000	3,100,000	45 - 49	2,800,000	2,300,000
25 - 29	4,400,000	3,700,000	50 - 54	2,200,000	1,700,000
30 - 34	4,400,000	3,700,000	55 - 59	2,000,000	1,500,000
35 - 39	3,900,000	3,300,000	60 - 64	1,400,000	1,000,000
40 - 44	3,100,000	2,500,000	65 - 69	800,000	500,000

Table 34: Total Protection Gap

(S$ bn)	2012 PGS
Protection Need after zeroisation	1,192.7
CPF Savings	121.9
Protection Need after zeroisation and CPF Savings	1,070.8
Existing Insurance Coverage	
Group Insurance	143.4
Individual Insurance	466.9
Effect of capping Sum Assured	(1.6)
Total Existing Insurance Coverage	608.8
Protection Gap	462.1

The total Protection Gap as at the end of 2011 is S$462.1 bn.

The Protection Need and the Protection Gap per economically active individual

5.9 The table below sets out the average Protection Need and the Protection Gap for an economically active adult. It is important to note that the Protection Need and Protection Gap vary widely between the different

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profiles.

5.10   A typical way of expressing the level of insurance coverage needed is as a multiple of annual income. For each economically active individual's profile, we are able to express the following as a factor of the average annual income pre profile:

    a   the average Protection Need

    b   the average Protection Gap

    c   the average group and individual life insurance cover; and

    d   the average CPF Savings.

5.11   Based on these calculations, the overall average Protection Need as at the end of 2011 was 10x an individual's annual income. Although the absolute amount of Protection Need increased, the average Annual Income increased even more. The average protection gap of working adults was 3.7x annual income.

5.12   As shown below, the existing insurance coverage played a key role in meeting the Protection Need.

Table 35: Total Protection Need and Protection Gap per economically active adult

	2012 PGS
Protection Need after zeroisation	626,016
CPF Savings	63,973
Protection Need after zeroisation and CPF Savings	562,043
Existing Insurance Coverage	
Group Insurance	75,288
Individual Insurance	245,072
Effect of sum assured capping	(837)
Total Existing Insurance Coverage	319,523
Protection Gap	242,520
Annual Income	65,487
Multiple of Annual Income	
Protection Need after zeroisation	10x
CPF Savings	1x
Existing Insurance Coverage	5x
Protection Gap	3.7x

Notes: Figures are in S$ unless otherwise indicated. Numbers may not be additive due to rounding.

Graphical representation of the Protection Gap and Existing Cover

5.13   The graph below shows the average Protection Gap and the average Existing Cover (CPF Savings and existing insurance cover) by age band.

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Figure 4: Protection Needs and Existing Cover

Needs and existing cover (S$)

Legend: Existing cover (CPF Savings and Insurance) ■ Protection gap
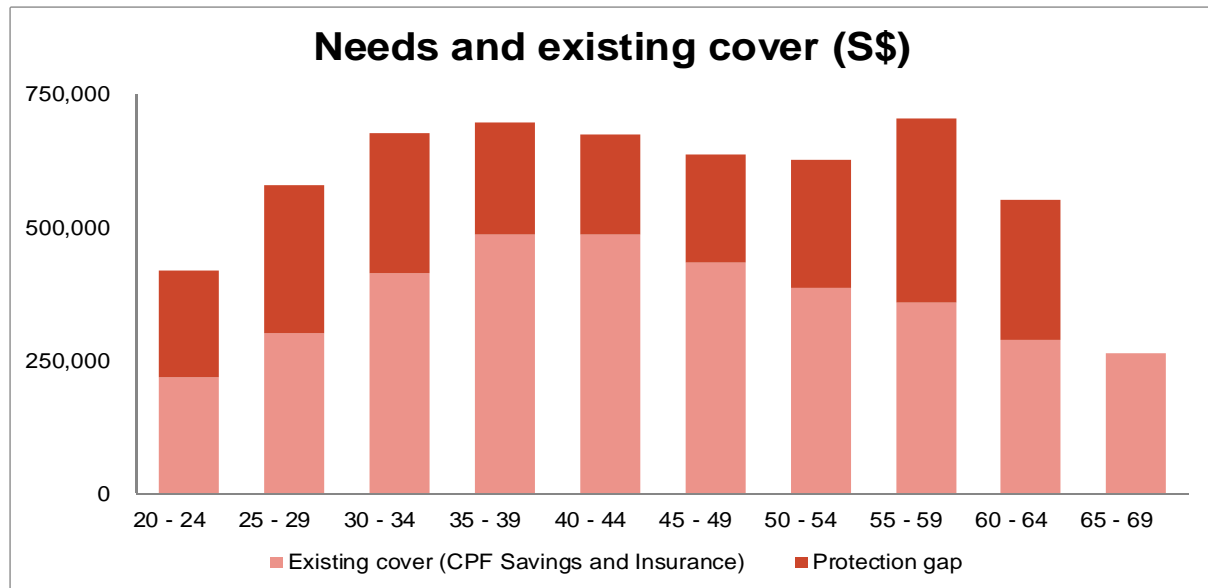
5.14   The Protection Need for age band 55-59 is higher than adjacent age bands because the Protection Need peaks at that age group for those who are married with an economically active spouse in the higher income quintiles. The adults in this profile suffer a large drop in income, but still have some children and elderly dependants. This is shown graphically in Appendix B.

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Section 6: Insurance data analysis

6.1   As part of the Protection Gap Study, the LIA collected insurance data for Singaporeans and Permanent Residents as at the end of 2011 from the members for analysis.

6.2   Only policies with a payout on death were included in the study. This means that critical illness policies, for example, were not included. Any references to insurance policies in the sections below refer to insurance policies with some death coverage.

6.3   As we would like to understand the purchasing behaviour of individual insurance, we have removed the effect of the DPS data approximately by taking out Term insurance policies of sums assured S$46,000 to S$53,850. 2,012,888 policies falling within this range were removed. The total number of DPS policies reported by the LIA as at the end of 2011 was 1,923,090, so there was a slight over-adjustment using this approximation.

6.4   Comments and results in the following section on insurance statistics therefore do not include DPS policies and include both economically active and inactive individuals.

6.5   The comments below relate to individual insurance policies only. The data was also in-force data as at the end of 2011, therefore any comments relating to purchasing behaviour would not have considered policies that were purchased, and then terminated.

Key findings

6.6   **A high proportion of Singaporeans own at least one individual insurance policy:** 58% whole population, 73% for those aged 30-49.

6.7   **The Life insurance coverage is predominantly provided by Whole of Life policies, followed by Endowment / Endowment Assurance policies at 65% of total life insurance coverage.**

6.8   **A high proportion of Singaporeans purchase Endowment/ Endowment assurance and Whole of Life products as their first insurance policy:** 59% of those who had at least one insurance policy purchased a Whole of Life policy first. This was followed by Endowment and Term policies at 38% and 14% respectively[1].

6.9   **The average sum assured purchased on a Term insurance product is generally low:** ranging from S$25,000 to S$180,000 across all ages.

6.10 Appendix A describes trends in the insurance data in more detail.

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[1] A person can purchase multiple product types during their first purchase.

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Section 7: Reliances and limitations

Reliances

7.1   In producing this report, reliance was placed on, but not limited to the general accuracy and completeness of:

- The following listed reports as shared by the Life Insurance Association ("LIA"):

  – "Underinsurance in Singapore" dated 4 November 2006 by YEE Wah Chin and WU Yuan in a file entitled "1 Underinsurance report 4 Nov 2006.doc"

  – "Consumer Survey on Life Insurance" conducted by Saffron Hill in a file entitled "SaffronHill_Presentation.pps"

  – "Underinsurance in Singapore 2007 Update" by YEE Wah Chin in a file entitled "2007 Protection Gap Report(15 Dec 08).doc" and the associated appendices in a file entitled "Underinsurance report 29 Mar 07.doc"

  We have relied on the LIA for having ensured that no previous agreements and Intellectual Property rights have been breached by sharing with Towers Watson a copy of these reports.

- The life insurance data collected from the industry and the consistency of interpretation of the required data from company to company.

- Data and information, written and verbal, supplied by the Life Insurance Association, Singapore via tele-conversations or over email.

7.2   While we have reviewed some of the information provided for overall reasonableness and consistency with our knowledge of the life insurance industry, we have not carried out independent checks of the data and other information supplied to us, nor have we checked all the formulae and calculation used to produce the results. The conclusions set out in this report are dependent on the accuracy and completeness of the information provided to us.

7.3   In preparing this report we have relied on a variety of publicly available reports, documents and press articles.   Although we have attempted to review all such information for reasonableness, we have not independently verified all information. Reliance is therefore placed on the accuracy of such information as obtained by us.

Limitations

7.4   This report and the opinions and conclusions contained herein are for the use of the LIA and is not intended for use by any third party (where third parties include member companies who are legally distinct from the LIA) and has been prepared by Towers Watson on an agreed

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basis to meet the specific purposes of the LIA. This report must not be relied upon for any other purpose.

7.5   Towers Watson gives no warranties as to the suitability of these reports for any purpose other than that for which they were originally provided and accept no responsibility or liability for any actions and/or decisions made by any third parties and/or member companies as a result. The LIA must make all third parties and/or member companies aware of this provision.

7.6   Towers Watson has prepared this report in conformity with its intended utilisation by a person technically competent in the areas addressed. Judgements in respect of the statements made in this report should be made only after studying this report in its entirety, as the conclusions reached by a review of a section or sections on an isolated basis may be incorrect. Further, members of Towers Watson's staff are available to explain and/or amplify any matter presented herein, and it is assumed that the user of this letter will seek such explanation and/or amplification as to any matter in question. If you have any queries or questions regarding the above, please do not hesitate to contact us.

7.7   In reviewing this letter, the LIA recognises that our liability is restricted in respect of the following matters:

- The future protection gap will vary from the results estimated as shown in the report. The calculated protection gap has been based on certain assumptions and parameters; deviations from the assumptions and parameters used would alter the protection gap results significantly. These assumptions and parameters include those which may be influenced by external factors such as inflation rates, the general economic environment and changes in demographic patterns, government policies and taxation.

- The protection gap for each of the profiles studied is intended to represent the average protection requirement. The actual protection need and protection gap of an individual is likely to vary depending on the individual's specific circumstances for that profile.

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Appendix A: Individual life insurance data analysis

We were able draw some insight on the level of insurance penetration and purchasing behaviour of lives insured based on the individual life insurance data provided for the Protection Gap Study.

As at the end of 2011, there were 7.0 million policies in-force and there were 2.9 million unique lives insured. These 7.0 million policies approximately exclude 2.0 million DPS policies.

As described in Section 6, all references to insurance policies in this appendix refer to individual insurance policies with some death coverage. Products with only living benefits such as critical illness have not been included. The data was also in-force data as at the end of 2011, therefore any comments relating to purchasing behaviour would not have considered policies that were purchased, and then terminated.

We have included data tables on:

- Table 36: Number of Singaporeans and Permanent Residents by number of policies and age band
- Table 37: Average number of policies by age band and gender of those with insurance
- Table 38: Average life insurance coverage by age band and gender (S$)
- Table 39: Total life insurance coverage by age band and gender (S$ m)
- Table 40: Total life insurance coverage by age band and product type (S$ m)
- Table 41: Average life insurance coverage per life insured by age band and product type (S$)
- Table 42: Number of lives insured by age band and product type
- Table 43: Number of policies per life insured within each product type by age band
- Table 44: Number of policies and lives insured by sum assured band
- Table 45: Number of lives insured by sum assured band

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How many Singaporeans have at least one individual insurance policy?

The graph below shows that the number of insurance policies a person has increases steadily over the age bands up to age band 40 - 44 and starts decreasing thereafter. At age band 40 - 44, 24% of the population did not have any insurance with life insurance coverage.

Overall, 58% of the population had at least one individual insurance policy with life insurance coverage. For age bands 30-49, 73% of Singaporeans had at least one insurance policy.

Figure 5: Distribution of the number of policies per person by age band
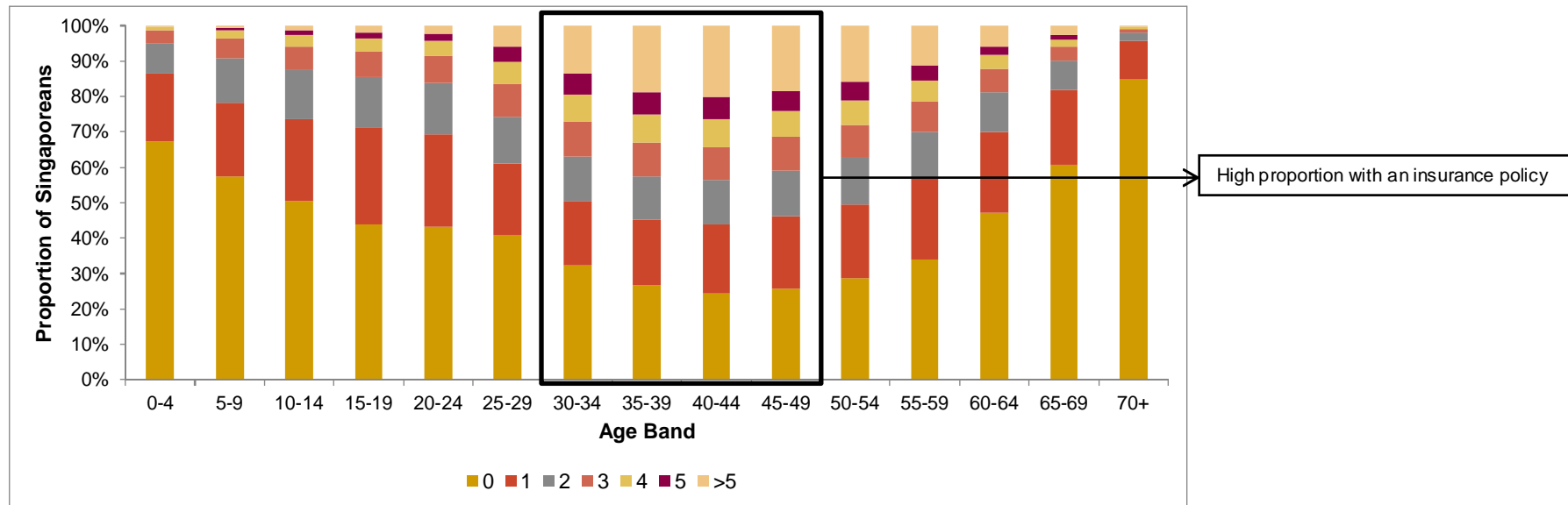
We have included the data table for the graph above for reference.

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Table 36: Number of Singaporeans and Permanent Residents by number of policies and age band

No. of policies	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70+
0	131,056	123,523	122,809	115,747	106,357	111,680	96,595	85,837	75,613	82,621	87,063	84,110	90,415	67,835	192,241
1	36,820	45,248	56,588	71,951	65,235	54,312	54,516	58,940	60,410	66,840	63,088	57,299	43,868	23,270	24,505
2	17,135	26,898	34,190	37,784	35,789	36,562	37,306	39,128	38,051	41,786	39,429	32,340	21,518	9,274	5,922
3	6,662	12,113	16,246	19,022	18,918	25,477	29,317	30,426	29,313	30,778	28,429	21,654	12,510	4,449	2,133
4	1,905	4,741	7,756	9,607	9,999	16,974	22,789	25,151	24,066	23,803	21,136	14,803	7,518	2,376	937
5	503	1,898	3,522	4,754	5,206	11,047	17,244	20,240	19,115	18,187	16,049	10,357	4,817	1,409	457
>5	351	1,254	3,191	4,885	5,686	16,587	40,920	60,302	62,873	59,444	47,850	28,133	11,349	2,898	681
Total	194,432	215,675	244,302	263,750	247,190	272,639	298,687	320,024	309,441	323,459	303,044	248,696	191,995	111,511	226,876

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On average, how many insurance policies did Singaporeans have?

Of the people who had insurance, on average, a person would have one to two policies up to the age of 24. From ages 25 to 64, he would have 2.5 to 4.3 policies. Females had higher average number of policies than males at older ages.

Figure 6: Average number of policies by age band and gender of those with insurance
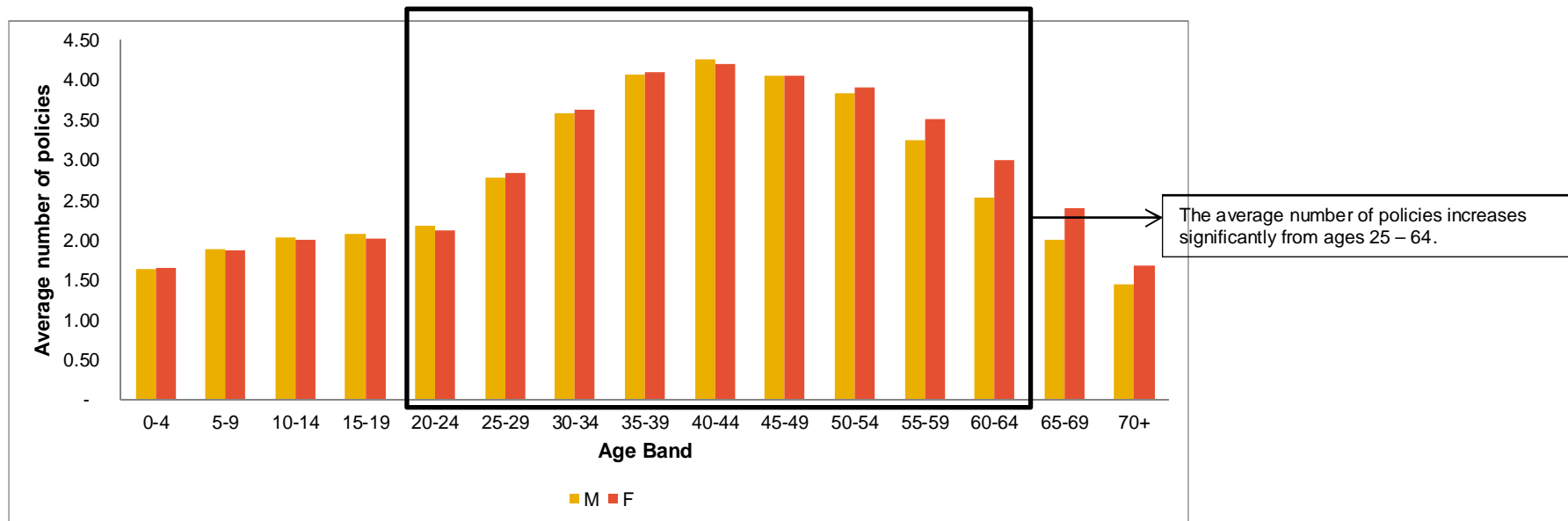
Table 37: Average number of policies by age band and gender of those with insurance

Age	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70+
M	1.63	1.88	2.03	2.07	2.17	2.78	3.59	4.07	4.26	4.06	3.84	3.25	2.53	2.00	1.44
F	1.65	1.87	2.00	2.01	2.11	2.83	3.62	4.09	4.20	4.05	3.90	3.51	2.99	2.39	1.67

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Is the average coverage different for males versus females? What is the average coverage across age bands?

The graph below shows that the average coverage for males is higher than females at most ages. Females aged 40 and above had about 74%-81% of the male average sum assured.

The average coverage level increases steadily from age band 20-24 and peaks at around S$250,000 to S$300,000 at ages 35 – 44.

Figure 7: Average life insurance coverage by age band and gender (S$)
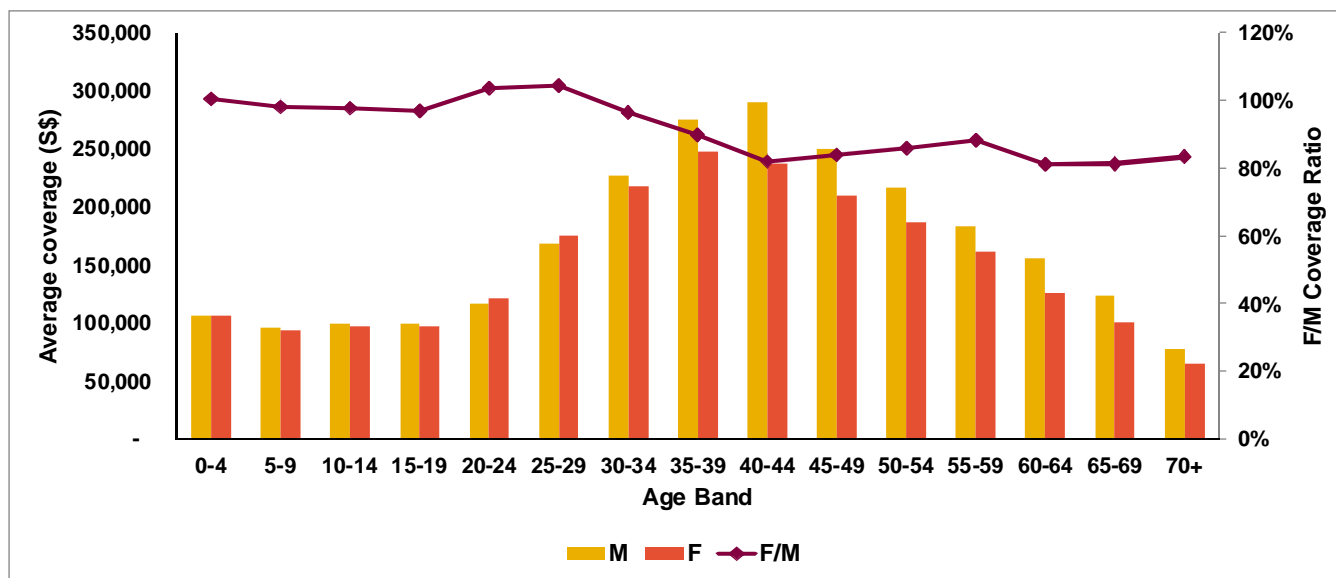
Table 38: Average life insurance coverage by age band and gender (S$)

Age	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70+
M	105,788	94,452	98,586	98,060	116,483	175,138	232,455	292,533	311,561	267,018	234,290	198,810	156,184	122,900	79,163
F	105,920	92,667	96,099	94,914	119,852	173,225	213,821	243,073	230,704	201,559	178,450	151,758	122,943	99,820	64,064

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Is the total coverage different for males versus females?

The total life insurance coverage shown in the graph below by age band and gender is generally higher for males than females.

The total insurance coverage amounted to S$ 406 bn as at the end of 2011.

Figure 8: Total life insurance coverage by age band and gender (S$ m)
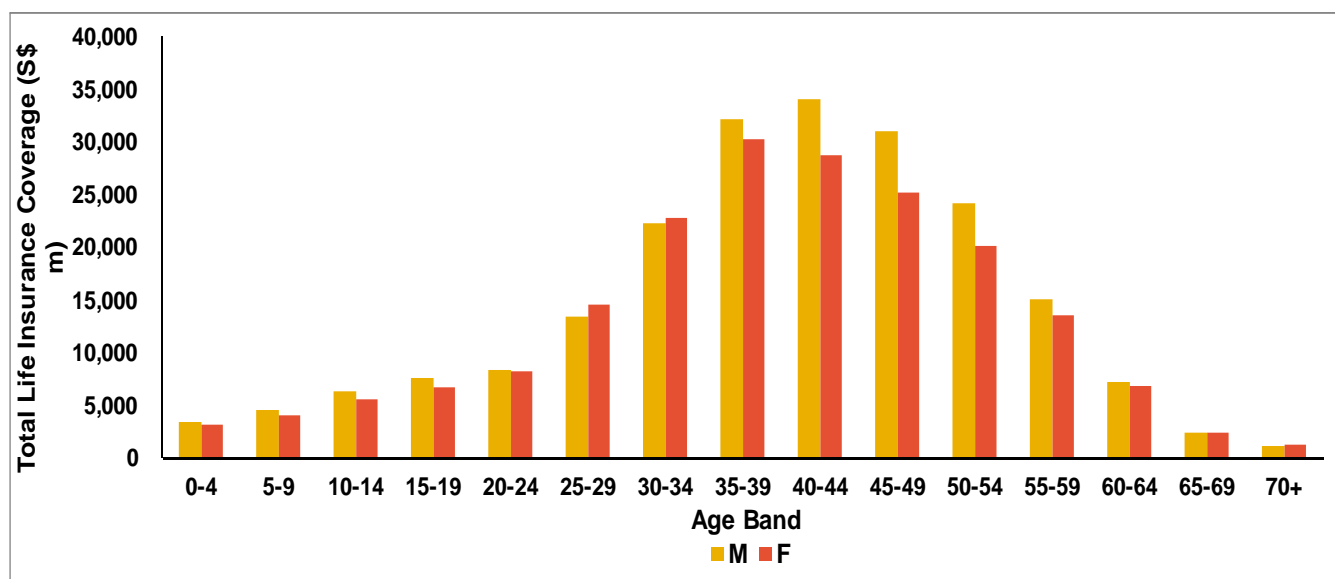
Table 39: Total life insurance coverage by age band and gender (S$ m)

Age	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70+
M	3,487	4,506	6,269	7,639	8,395	13,466	22,289	32,075	34,023	30,925	24,133	15,012	7,195	2,368	1,189
F	3,222	4,118	5,564	6,654	8,241	14,564	22,710	30,272	28,752	25,199	20,161	13,518	6,825	2,436	1,257

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Which products provided the highest coverage in total?

Majority of the total life insurance coverage comes from Whole of Life and Endowment insurance policies.

Figure 9: Total insurance coverage by age band and product type

Majority of life coverage is from Whole of Life and Endowment policies.

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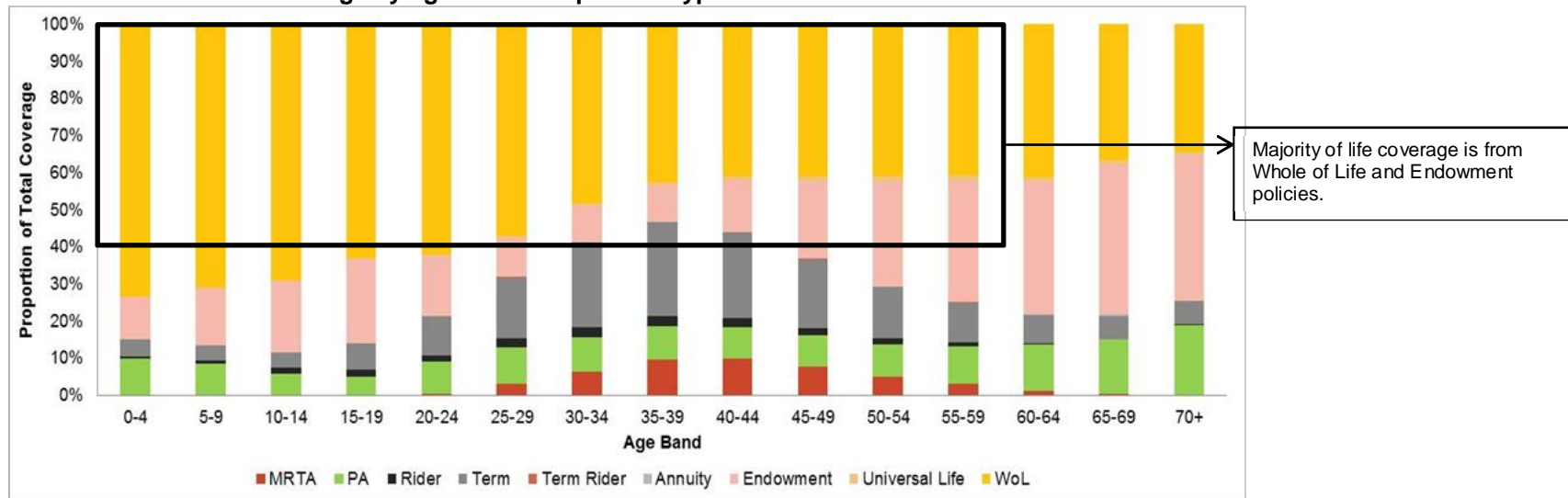
Table 40: Total life insurance coverage by age band and product type (S$ m)

Age	Endowment	MRTA	PA	Rider	Term	Term Rider	WOL	Universal Life	Annuity
0 – 4	765	5	649	42	312	0	4,934	0	0
5 - 9	1,330	6	729	78	350	0	6,130	1	0
10 - 14	2,286	12	687	180	469	0	8,196	3	0
15 - 19	3,283	11	716	242	1,022	0	9,014	5	0
20 - 24	2,676	62	1,431	307	1,738	3	10,351	68	0
25 - 29	3,038	824	2,793	650	4,637	16	16,052	19	0
30 - 34	4,610	2,822	4,178	1,247	10,232	32	21,785	93	0
35 - 39	6,322	5,992	5,610	1,651	15,812	30	26,647	285	0
40 - 44	8,815	6,173	5,328	1,501	14,569	26	25,752	611	0
45 - 49	11,755	4,327	4,660	1,141	10,442	23	23,122	653	0
50 - 54	12,492	2,259	3,790	761	6,133	13	18,213	632	0
55 - 59	9,350	847	2,883	347	3,046	7	11,632	417	1
60 - 64	5,012	166	1,765	38	1,056	2	5,810	136	35
65 - 69	1,932	19	702	3	302	0	1,772	53	21
70+	963	4	460	1	157	0	849	10	1

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What were the average sums assured for each product type for each life insured?

We have shown the average sums assured for Whole of Life, Term Insurance, Personal Accident and Riders below.

Term insurance policies tend to have a broader range of coverage ranging from a relatively low average sum assured of around S$25,000 to S$180,000.

Whole of Life policies had average sums assured ranging from S$50,000 to S$140,000.

Figure 10: Average life insurance coverage per life insured by age band and product type (S$)
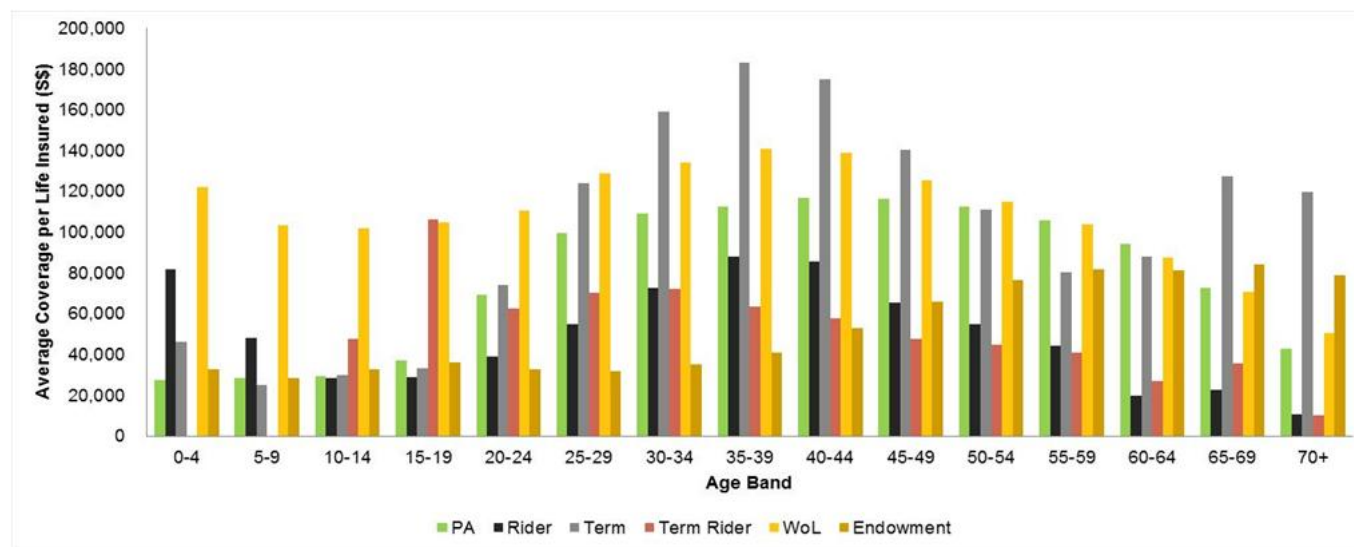
We have included the data underlying the graph above as well as other product types that are not shown in the graph above.

The table below shows that the average life insurance coverage was the highest for MRTA policies at about S$200,000 to S$340,000 sum assured for most age groups.

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Table 41: Average life insurance coverage per life insured by age band and product type (S$)

Age	Product Type								
	Endowment	MRTA	PA	Rider	Term	Term Rider	WOL	Universal Life	Annuity
0 – 4	32,729	286,266	27,648	81,686	46,379	-	122,156	-	-
5 - 9	28,485	282,109	28,414	48,249	24,878	-	103,321	1,287,179	-
10 - 14	32,865	222,355	29,276	28,343	30,046	47,480	101,864	862,593	11,018
15 - 19	36,213	122,537	37,293	28,704	33,360	106,196	104,517	1,610,350	-
20 - 24	32,934	266,140	69,058	39,015	73,801	62,408	110,702	2,536,711	-
25 - 29	31,802	340,473	99,421	54,804	124,166	70,416	128,635	1,578,876	32,053
30 - 34	35,272	312,487	109,235	72,812	158,799	72,123	134,020	1,713,558	81,269
35 - 39	40,685	292,206	112,487	87,869	183,060	63,536	140,667	1,989,580	160,604
40 - 44	53,089	282,064	116,587	85,680	174,840	57,934	138,844	2,536,769	-
45 - 49	65,945	235,451	116,407	65,579	140,363	47,780	125,440	2,512,587	40,467
50 - 54	76,467	177,434	112,458	54,586	111,089	44,961	114,906	2,258,681	56,949
55 - 59	81,760	123,451	105,914	44,404	80,334	40,674	103,567	2,425,695	72,801
60 - 64	81,226	68,273	94,283	19,989	87,905	26,801	87,555	1,620,338	68,813
65 - 69	83,904	52,222	72,653	22,761	127,250	35,692	70,554	2,291,090	39,575
70+	78,817	85,974	42,761	10,872	119,444	10,000	50,694	1,233,336	11,509

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What was the distribution of product type by number of lives insured and by age band?

The graph below shows the number of endowment and Whole of Life insurance lives insured is higher than any other insurance product for all age bands. This is consistent with the distribution of number of policies above.

Figure 11: Proportion of lives insured by age band and product type

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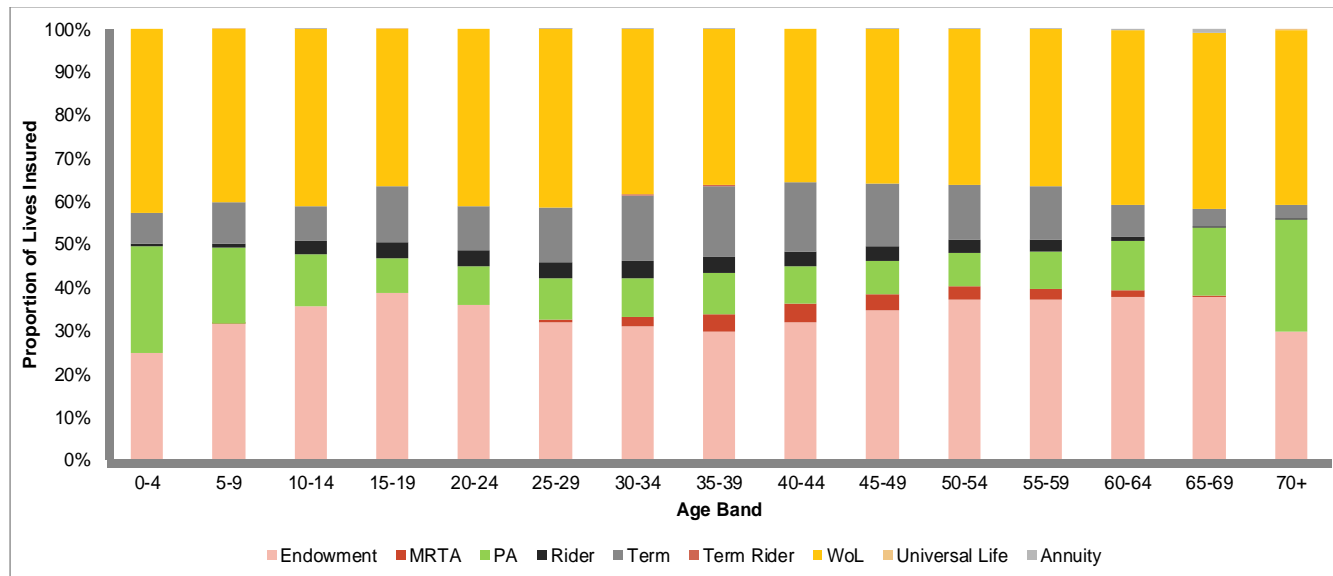
Table 42: Number of lives insured by age band and product type

Age band	Endowment	MRTA	PA	Rider	Term	Term Rider	WOL	Universal Life	Annuity
					Product Type				
0 – 4	23,361	19	23,482	519	6,734	0	40,395	0	0
5 - 9	46,706	23	25,658	1,612	14,070	0	59,325	1	0
10 - 14	69,572	56	23,483	6,334	15,599	2	80,463	3	1
15 - 19	90,663	88	19,208	8,425	30,627	4	86,241	3	0
20 - 24	81,265	234	20,727	7,863	23,545	42	93,493	27	0
25 - 29	95,539	2,419	28,093	11,854	37,349	230	124,766	12	1
30 - 34	130,696	9,031	38,249	17,125	64,433	441	162,545	54	1
35 - 39	155,392	20,506	49,870	18,789	86,374	470	189,452	143	1
40 - 44	166,047	21,883	45,696	17,516	83,328	448	185,529	241	0
45 - 49	178,260	18,378	40,027	17,392	74,396	487	184,355	260	3
50 - 54	163,361	12,733	33,701	13,936	55,208	295	158,491	280	5
55 - 59	114,357	6,864	27,224	7,805	37,919	168	112,331	172	12
60 - 64	61,708	2,431	18,720	1,903	12,010	66	66,358	84	505
65 - 69	23,028	368	9,656	124	2,376	6	25,119	23	539
70+	12,214	51	10,754	97	1,318	1	16,748	8	116
% of total lives insured count									
All age bands	**34%**	**2%**	**10%**	**3%**	**13%**	**0%**	**38%**	**0%**	**0%**

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Do individuals buy the same product type multiple times?

Individuals tend to buy multiples of Whole of Life and Endowment policies due to the savings nature of these policies.

An individual may have different product types which mean that this life insured would appear in multiple categories.

Figure 12: Number of policies per life insured within each product type by age band
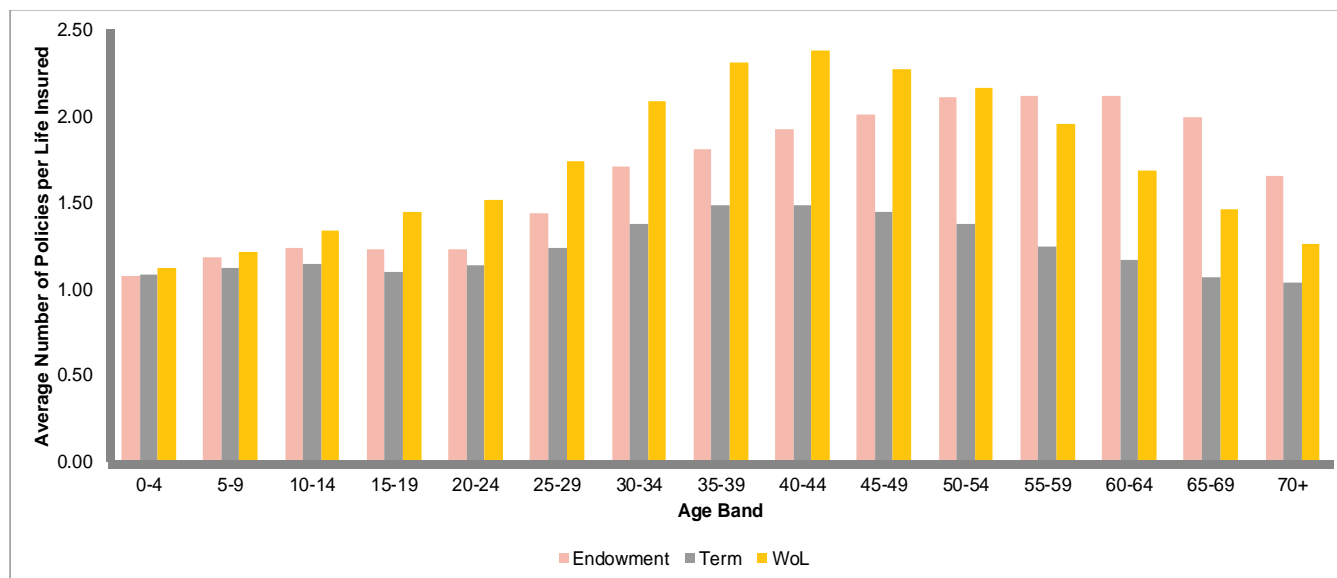
We have included the data for all the product categories below for completeness.

Table 43: Number of policies per life insured within each product type by age band

Age	Product Type								
	Endowment	MRTA	PA	Rider	Term	Term Rider	WOL	Universal Life	Annuity
0 – 4	1.07	1.11	1.09	1.14	1.08	0.00	1.12	0.00	0.00
5 - 9	1.18	1.09	1.10	1.06	1.12	0.00	1.21	1.00	0.00
10 - 14	1.23	1.11	1.10	1.31	1.15	1.00	1.33	1.00	1.00
15 - 19	1.23	1.08	1.11	1.32	1.09	1.00	1.45	1.33	0.00
20 - 24	1.23	1.14	1.15	1.20	1.13	1.00	1.51	1.11	0.00
25 - 29	1.44	1.21	1.18	1.24	1.23	1.02	1.74	1.08	1.00
30 - 34	1.71	1.14	1.17	1.31	1.38	1.02	2.09	1.04	1.00
35 - 39	1.81	1.13	1.18	1.38	1.48	1.10	2.31	1.03	1.00
40 - 44	1.92	1.12	1.19	1.38	1.48	1.14	2.38	1.07	0.00
45 - 49	2.01	1.11	1.19	1.36	1.44	1.18	2.27	1.06	1.00
50 - 54	2.11	1.10	1.18	1.32	1.38	1.15	2.16	1.08	1.00
55 - 59	2.11	1.08	1.17	1.27	1.24	1.11	1.96	1.09	1.33
60 - 64	2.11	1.05	1.14	1.14	1.16	1.06	1.68	1.04	1.08
65 - 69	1.99	1.04	1.11	1.10	1.07	1.00	1.46	1.04	1.04
70+	1.65	1.04	1.07	1.09	1.03	1.00	1.26	1.38	1.02

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What was the distribution of sum assured by policies and by lives insured?

80% of policies had a sum assured of less than S$80,000. 80% of lives insured have total sums assured of less than S$220,000.

Figure 13: Cumulative number of policies and lives insured by sum assured band
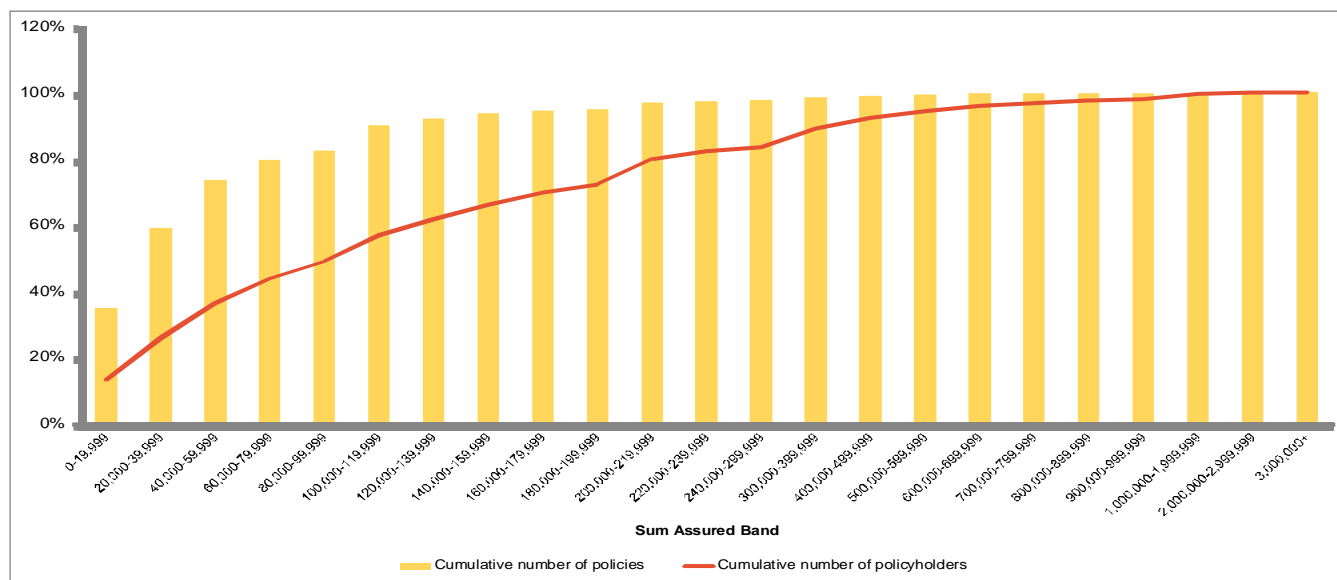
Table 44: Number of policies and lives insured by sum assured band

SA Bands (in S$ '000)	Cumulative number of policies		Cumulative number of policyholders	
0 - 20	2,446,442	35%	285,746	13%
20 - 40	4,169,104	59%	567,230	26%
40 - 60	5,186,363	74%	796,569	36%
60 - 80	5,623,140	80%	962,130	44%
80 - 100	5,817,788	82%	1,077,265	49%
100 - 120	6,348,868	90%	1,251,154	57%
120 - 140	6,483,297	92%	1,358,751	62%
140 - 160	6,617,832	94%	1,455,485	66%
160 - 180	6,671,773	95%	1,530,494	70%
180 - 200	6,704,958	95%	1,589,404	72%
200 - 220	6,846,334	97%	1,758,642	80%
220 - 240	6,864,975	97%	1,809,190	82%
240 - 300	6,895,909	98%	1,835,810	84%
300 - 400	6,950,829	99%	1,958,618	89%
400 - 500	6,976,601	99%	2,027,012	92%
500 - 600	7,019,679	100%	2,074,233	94%
600 - 700	7,027,080	100%	2,105,864	96%
700 - 800	7,031,504	100%	2,127,377	97%
800 - 900	7,034,147	100%	2,142,159	97%
900 - 1000	7,036,118	100%	2,152,826	98%
1,000 - 2,000	7,051,758	100%	2,189,956	100%
2,000 - 3,000	7,053,176	100%	2,195,373	100%
3,000 +	7,054,014	100%	2,198,219	100%

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What type of products do individuals tend to have first?

The first insurance products for both male and female policyholders are predominantly whole of life and endowment products. This is followed by Term products.

Figure 14: Number of lives insured by first insurance product type and gender
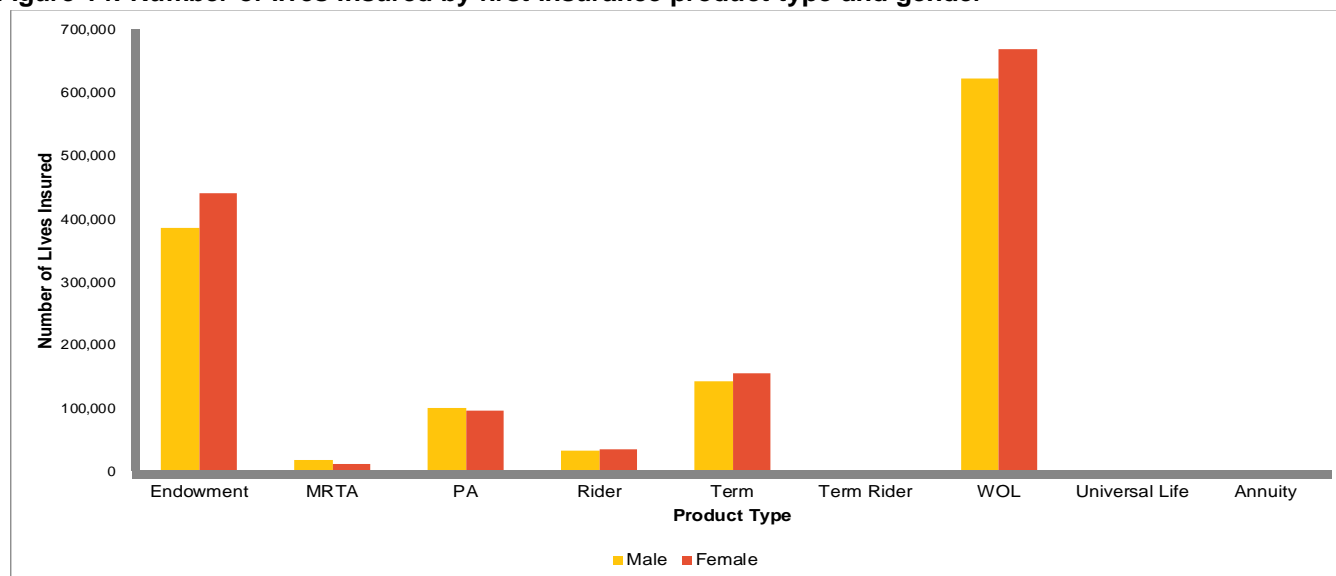
Table 45: Number of lives insured by sum assured band

	Endowment	MRTA	PA	Rider	Term	Term Rider	WOL	Universal Life	Annuity
Male	385,366	17,705	100,112	33,430	142,258	528	621,494	417	96
Female	440,195	11,779	94,931	33,565	155,885	645	666,786	277	80

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Figure 15: Number of lives insured by first insurance product type and by age band

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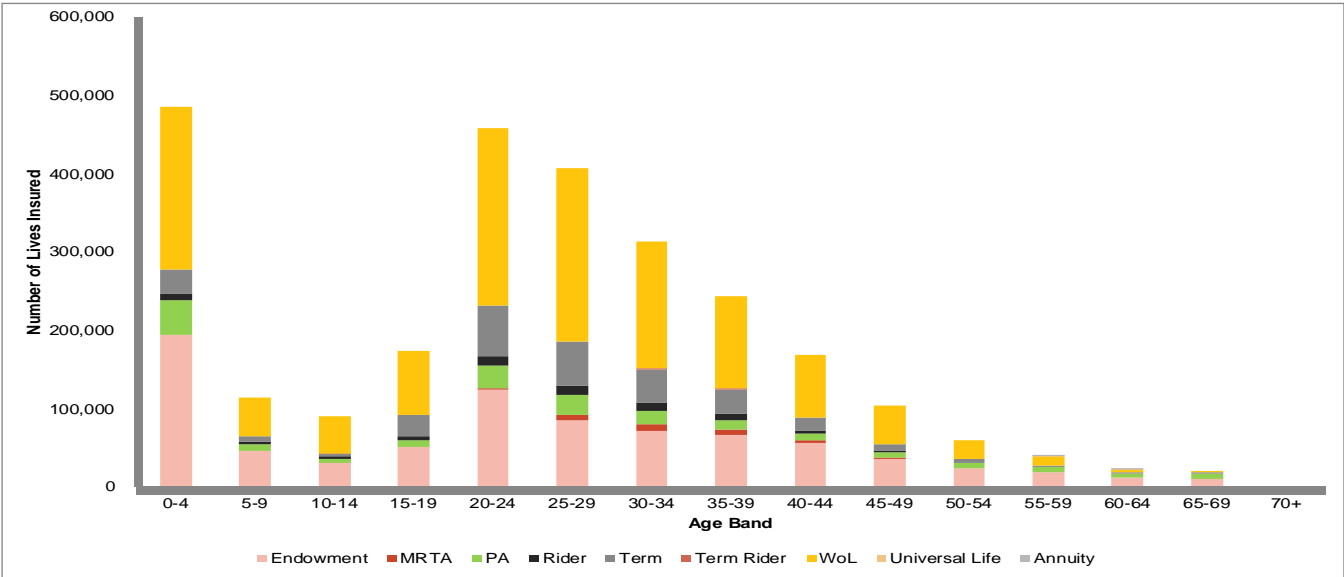
Table 46: Number of lives insured by first insurance product type and age band

Age	Endowment	MRTA	PA	Rider	Term	Term Rider	WOL	Universal Life	Annuity
0-4	193,562	76	44,476	9,095	31,290	0	207,935	0	32
5-9	46,466	22	8,787	2,869	5,775	4	50,848	0	0
10-14	29,956	17	6,278	2,704	4,393	19	47,706	0	0
15-19	50,407	181	9,032	4,939	27,334	68	81,848	1	0
20-24	124,370	1,564	29,720	11,455	64,882	270	226,338	10	2
25-29	85,747	6,131	26,031	11,856	56,140	278	220,681	1	0
30-34	72,064	7,873	17,014	10,013	43,790	230	162,996	6	1
35-39	67,133	6,346	12,390	7,288	32,132	158	118,584	23	0
40-44	55,526	3,907	9,059	3,855	16,705	90	79,182	33	1
45-49	35,595	2,148	7,251	1,822	7,827	37	48,971	31	5
50-54	23,494	882	6,445	704	3,648	11	25,048	30	4
55-59	18,837	267	6,283	259	2,122	6	12,244	17	604
60-64	12,327	56	5,282	110	784	2	4,349	10	35
65-69	10,077	14	6,995	26	1,321	0	1,550	14	10
70+	0	0	0	0	0	0	0	0	0

Appendix B: Graphical representations of the Protection Need

The tables below for the information by family profile: [GENDER][MARTIAL STATUS][WHETHER SPOUSE IS ECONOMICALLY ACTIVE][INCOME QUINTILE]

Married individuals with Economically Active Spouses

Male: Married with economically active spouse (S$m)

Female: Married with economically active spouse (S$m)

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Married individuals with Economically Inactive Spouses

Male: Married with economically inactive spouse (S$m)

Female: Married with economically inactive spouse (S$m)

Singles

Male: Single (S$m)

Female: Single (S$m)

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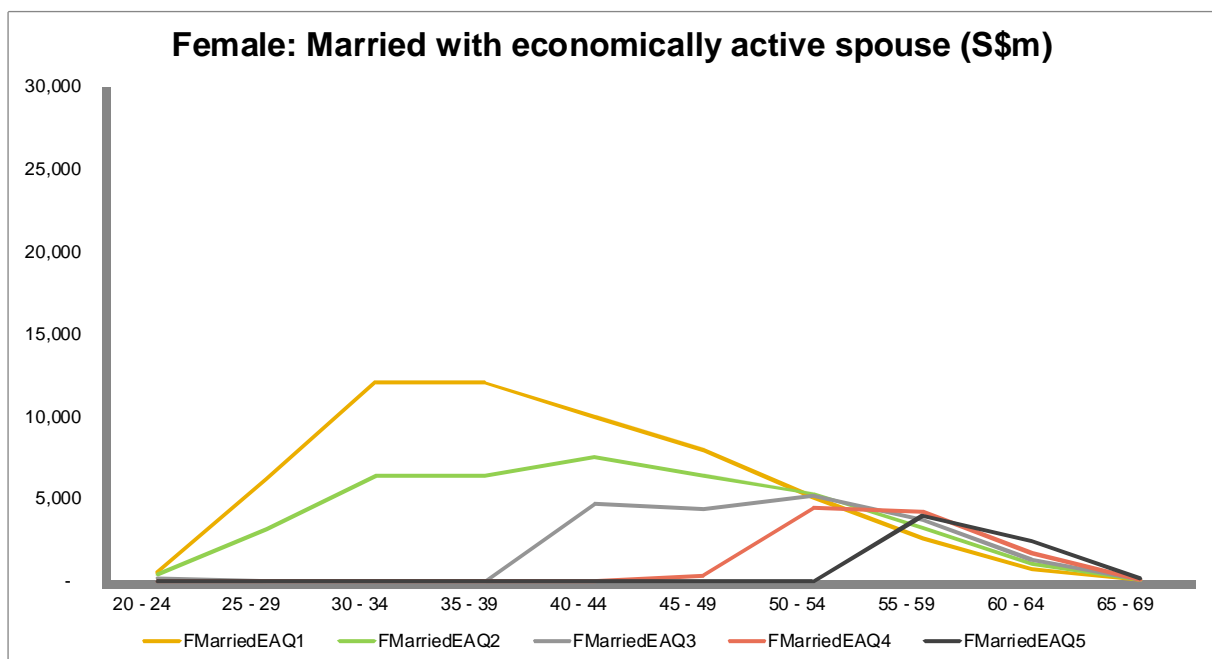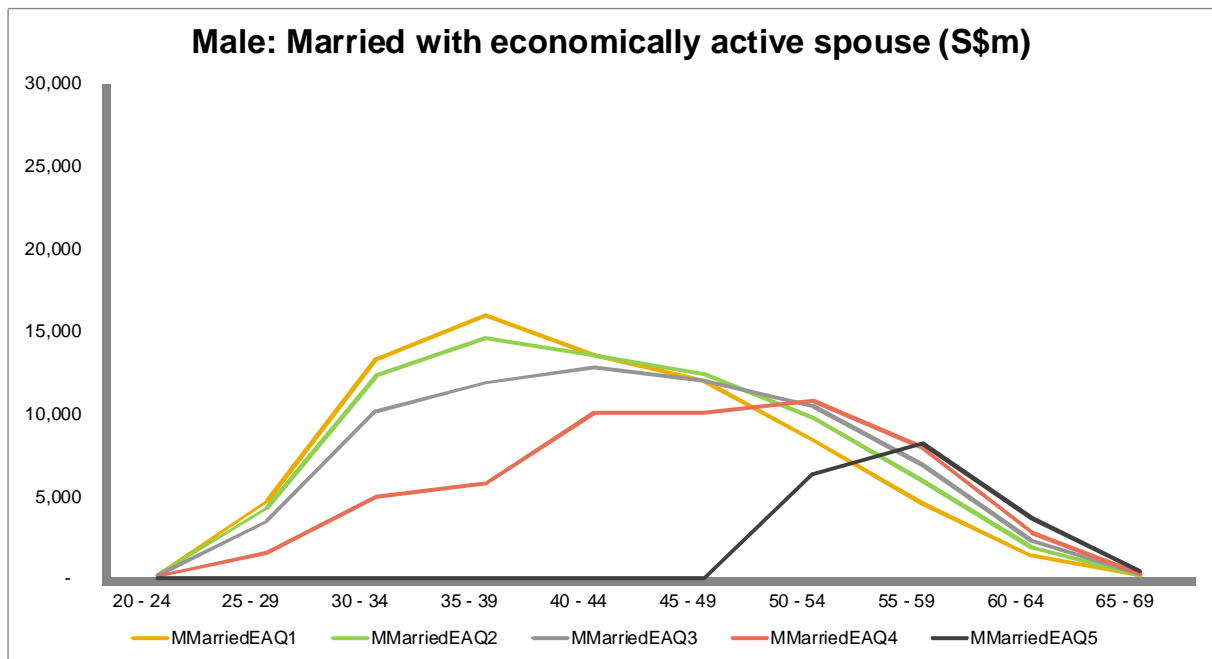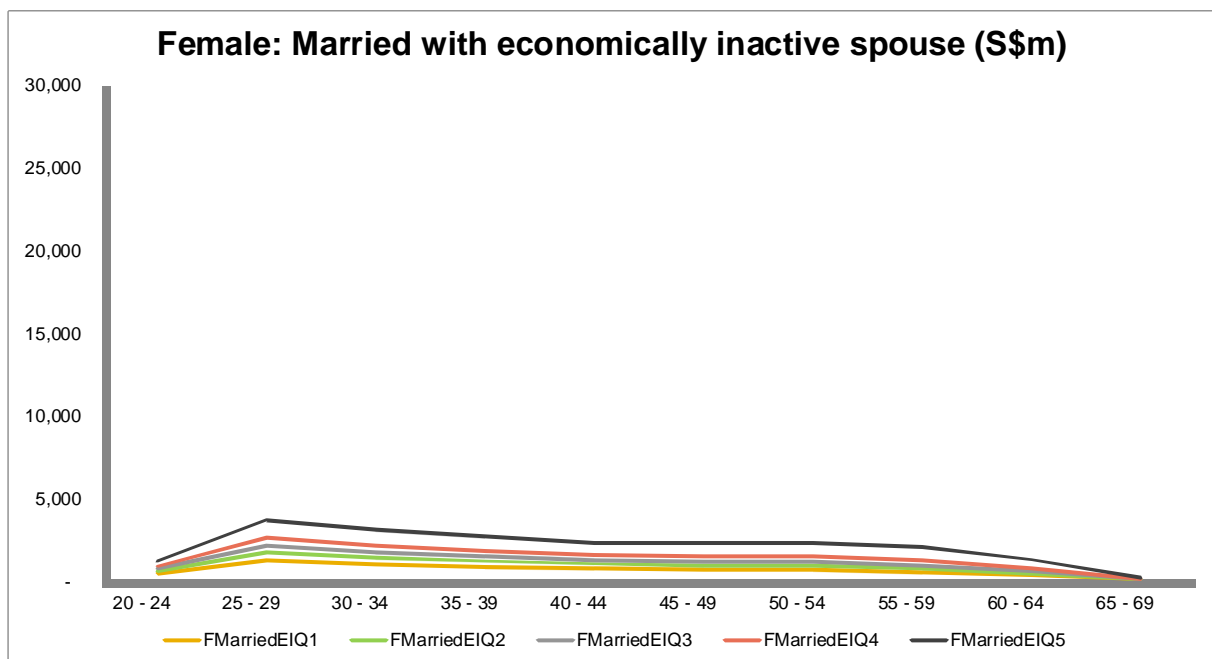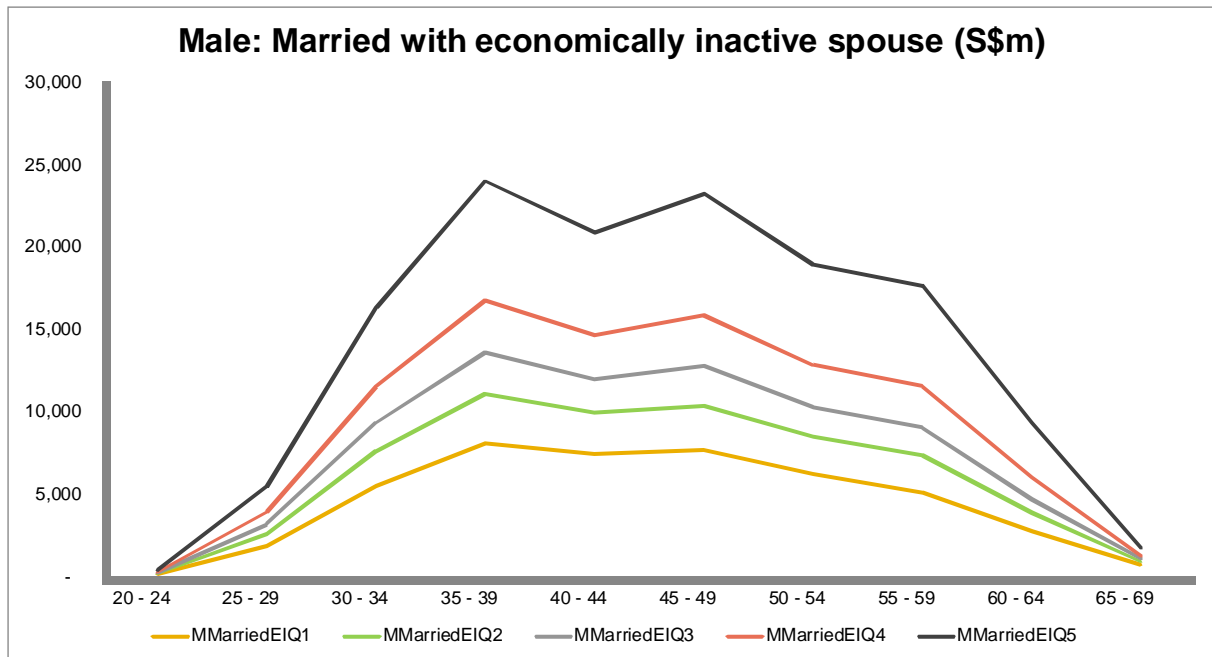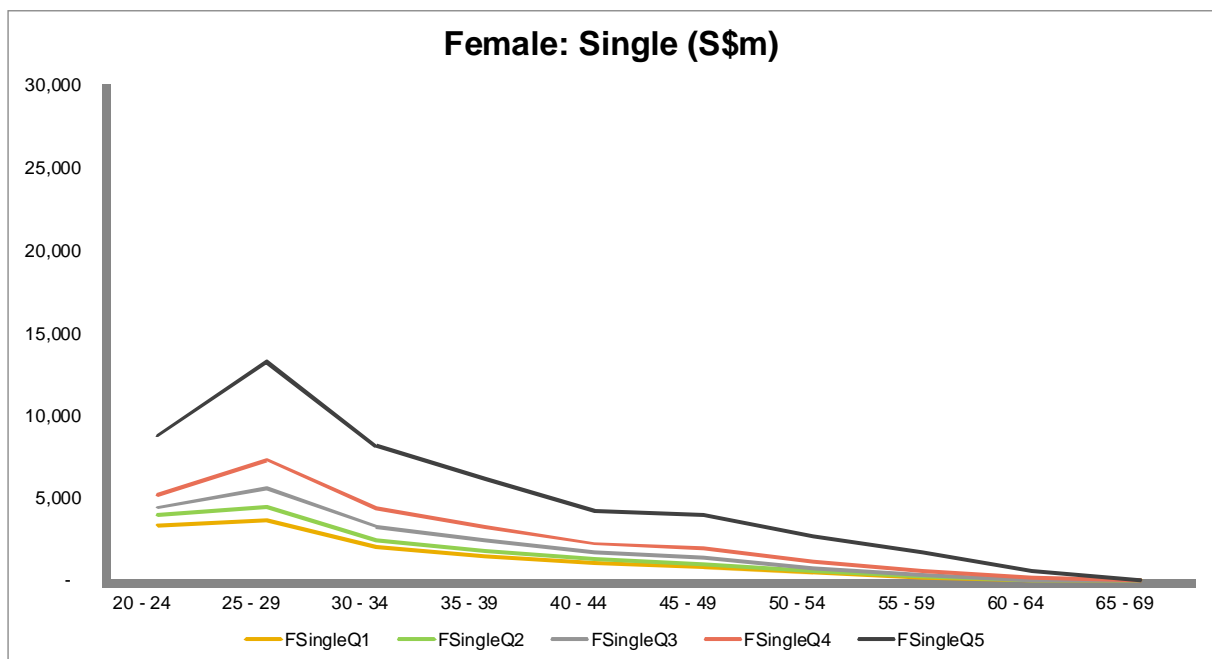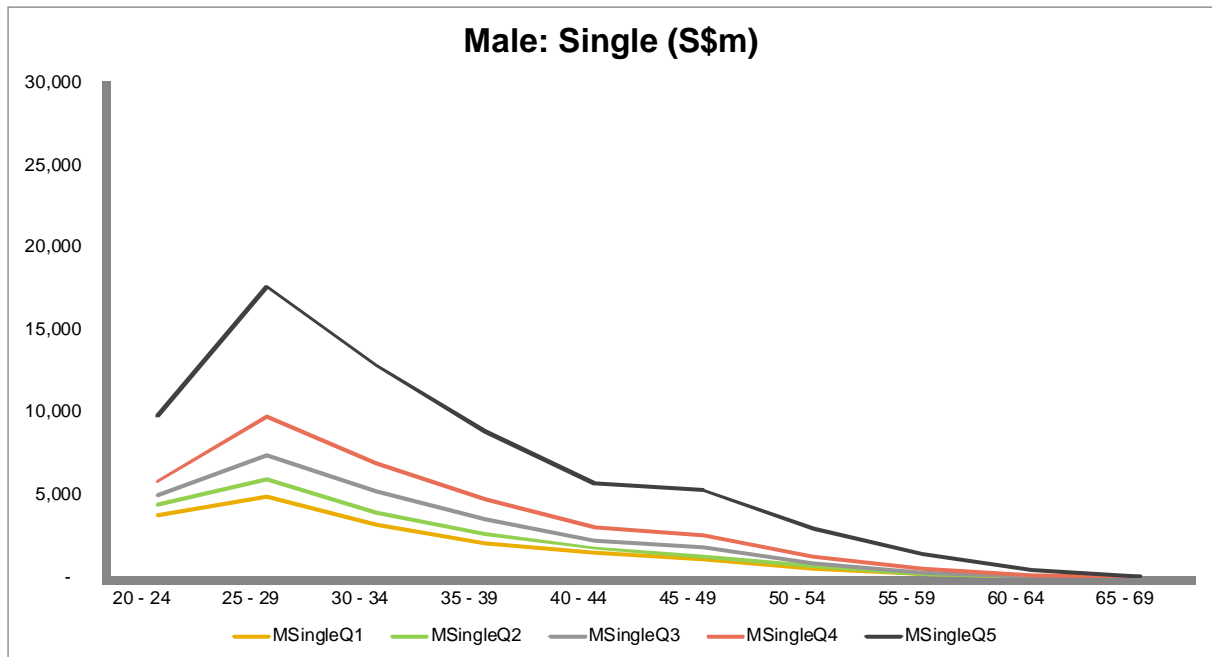
Appendix C: Economic Assumptions

Two sets of economic assumptions were used. One set of historic assumptions were used to inflate the various data sources available to a year-end 2011 position and another set of economic assumptions were used in the projection.

Historic economic assumptions

Assumption	Rate (per annum)	Application	Source
Wage inflation rate	4.5%	To express the average household income from the HES 2007 study by quintiles in 2011 values. To inflate the average income for elderly dependents from 2005 to 2011.	3 year CAGR based on a Department of Statistics report entitled "Household income from work time series"[1]
General expense inflation rate	2.7%	To express the average household expense from the HES 2007 study by quintiles in 2011 values.	5 year CAGR based on the average monthly household expenditure between the HES 2002/2003 and the HES 2007/2008 results[2].
Housing inflation rate	3.3%	To express the average imputed rent from the HES 2007 study by quintiles in 2011 values. To grow the value of property assets in the Household Balance Sheet rom a year-end 2009 to 2011 values.	3 year CAGR based on Sing Stat's housing inflation rate as set out in annual press releases on the Consumer Price Index ("CPI"). Publicly available data extending beyond 4 historic years are unavailable.
Education inflation	3.4%	Annual needs of children based on the 2006 Study have been inflated for 5 years to 2011 values.	Actual CPI[3] from 2006 to 2011 has been used.

Notes: CAGR = Compounded Annual Growth Rate

Economic assumptions

Assumption	Rate	Application	Source
Wage inflation rate	4.1%	The needs of parents have been calculated as the income parents are dependent on their children for. The wage inflation rate has therefore been used.	10 year CAGR based on a Department of Statistics report entitled "Household income from work time series"[4]

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[1] http://www.singstat.gov.sg/stats/themes/people/hhldincome.html
[2] Key Indicators of the HES 2007/2008 report. This general expense inflation implied from the HES has been compared against the inflation based on the Consumer Price Index published by the Department of Statistics, Singapore and is close to the actual three year inflation from 2008 to 2011 of 2.8% per annum.
[3] CPI Time Series data published by the Department of Statistics, Singapore
[4] http://www.singstat.gov.sg/stats/themes/people/hhldincome.html

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Assumption	Rate	Application	Source
General expense inflation rate	2.7%	Present value of expenses for the following components: - Needs of children – both the annual needs and the cost of education for children - Household expense - Unpaid services	As with historic assumptions.
Housing Inflation Rate	3.3%	Present value of imputed rent.	As with historic assumptions.
Discount Rate	2.09%	Used to discount projected expenses for: - Unpaid services - Needs of children - Needs of parents - Household expenses - Spouse's income	Based on the 15 year Singapore government risk free yields as at 30 December 2011[1].

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[1] https://secure.sgs.gov.sg/fdanet/BenchmarkPricesAndYields.aspx

Appendix D: Census of Population 2010 Data

Population statistics from the Census of Population 2010 ("Census 2010")

In this appendix, we have set out the key data we have used from the 2010 Census in our calculation of the protection gap as at year-end 2011. For the purposes of the 2012 PGS, we have used data from the following two Census 2010 releases:

● Statistical release 1 ("SR1"): Demographic Characteristics, Education, Language and Religion

● Statistical release 2 ("SR2"): Household and Housing

The Census 2010 data have been used without any adjustments to the data as we do not expect significant demographic changes between end 2010 and end 2011.

These tables have been reproduced here in this Appendix. The table numbers quoted are the statistical tables from the Census 2010 release and have been pre-fixed with "SR1" or "SR2" depending on which statistical release the data has been extracted from.

SR1: Table 1 - Resident Population by Age Group, Ethnic Group, Sex and Residential Status

Age Group (Years)	Total	Males	Females
Total	3,771,721	1,861,133	1,910,588
0 - 4	194,432	98,890	95,542
5 - 9	215,675	110,215	105,460
10 - 14	244,302	125,271	119,031
15 - 19	263,750	134,003	129,747
20 - 24	247,190	123,942	123,248
25 - 29	272,639	131,299	141,340
30 - 34	298,687	143,048	155,639
35 - 39	320,024	156,318	163,706
40 - 44	309,441	152,995	156,446
45 - 49	323,459	163,237	160,222
50 - 54	303,044	152,721	150,323
55 - 59	248,696	124,822	123,874
60 - 64	191,995	94,796	97,199
65 - 69	111,511	53,321	58,190
70 - 74	92,618	42,887	49,731
75 - 79	65,178	28,214	36,964
80 - 84	39,839	15,532	24,307
85 & over	29,241	9,622	19,619

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SR1: Table 12 - Resident Population Aged 15 Years and Over by Age Group, Marital Status, Sex and Ethnic Group

Age Group (Years)	Total			Single			Married			Widowed			Divorced/Separated		
	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females
Total	3,105,748	1,517,428	1,588,321	1,000,467	527,090	473,377	1,844,606	928,352	916,254	157,556	24,854	132,702	103,120	37,132	65,988
15 - 19	270,986	140,275	130,711	270,300	140,140	130,159	686	134	552	-	-	-	-	-	-
20 - 24	242,360	124,500	117,860	229,787	121,568	108,220	11,553	2,686	8,866	81	32	49	939	214	725
25 - 29	261,431	126,519	134,913	167,306	94,397	72,909	90,852	31,226	59,627	110	12	98	3,163	884	2,279
30 - 34	291,687	137,861	153,826	89,762	51,164	38,598	194,005	83,768	110,237	231	41	190	7,689	2,888	4,801
35 - 39	318,212	153,129	165,083	59,504	31,288	28,216	245,708	117,328	128,380	990	192	797	12,010	4,320	7,690
40 - 44	304,016	148,382	155,634	44,603	22,665	21,938	243,708	120,221	123,486	1,819	345	1,475	13,885	5,150	8,735
45 - 49	319,916	159,397	160,519	41,684	21,088	20,596	258,635	131,879	126,755	3,881	776	3,105	15,716	5,654	10,062
50 - 54	303,727	151,988	151,739	38,101	18,400	19,701	242,143	126,308	115,835	7,049	1,279	5,769	16,435	6,000	10,434
55 - 59	252,926	127,280	125,647	26,753	11,928	14,824	201,038	108,696	92,342	11,550	1,805	9,745	13,586	4,850	8,736
60 - 64	196,418	96,557	99,861	16,763	6,974	9,789	152,820	83,565	69,255	17,404	2,732	14,673	9,431	3,286	6,145
65 - 69	113,609	54,368	59,241	6,644	3,020	3,624	83,035	46,729	36,307	19,224	2,819	16,406	4,705	1,801	2,904
70 - 74	95,333	44,472	50,861	4,943	2,375	2,568	61,919	36,780	25,139	25,425	4,143	21,282	3,047	1,175	1,872
75 - 79	66,508	28,195	38,313	2,678	1,344	1,334	35,133	22,338	12,795	27,139	3,961	23,178	1,559	552	1,007
80 - 84	40,546	15,481	25,066	1,082	496	586	16,047	11,194	4,853	22,770	3,556	19,214	648	234	413
85 & Over	28,071	9,024	19,047	558	243	315	7,323	5,497	1,825	19,882	3,161	16,722	308	123	185

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SR1: Table 19 – Resident Ever-Married Females Aged 15 Years and Over by Age Group, Number of Children Born and Economic Activity

Economically Active Ever-Married Females

Age Group (Years)	Total	Number of Children Born							
		None	1 Child	2 Children	3 Children	4 Children	5 Children	6 to 7 Children	8 or More Children
Total	581,867	102,981	136,576	213,634	97,698	23,105	5,013	2,331	530
15 - 19	168	39	86	44	-	-	-	-	-
20 - 24	5,969	2,636	2,320	815	161	31	6	-	-
25 - 29	46,667	24,500	14,296	6,333	1,296	197	45	-	-
30 - 34	85,957	26,581	29,533	23,448	5,222	980	155	19	20
35 - 39	96,463	17,004	24,965	38,229	13,112	2,561	437	148	7
40 - 44	89,653	11,101	19,523	37,847	16,775	3,517	704	173	12
45 - 49	88,777	8,653	16,508	37,612	20,070	4,909	777	243	6
50 - 54	76,611	6,176	13,590	33,050	18,988	3,943	639	207	18
55 - 59	50,284	3,662	9,042	22,246	12,080	2,576	509	157	12
60 - 64	27,082	1,909	4,870	10,556	6,875	2,144	522	169	37
65 - 69	8,365	459	1,145	2,447	2,072	1,208	567	429	37
70 - 74	4,172	187	537	780	892	745	416	445	169
75 - 79	1,276	75	132	169	138	200	167	259	136
80 - 84	322	-	31	49	13	57	56	68	49
85 & Over	102	-	-	6	6	37	13	14	25

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Economically Inactive Ever-Married Females

Age Group (Years)	Total	Number of Children Born							
		None	1 Child	2 Children	3 Children	4 Children	5 Children	6 to 7 Children	8 or More Children
Total	533,077	28,595	77,838	170,085	124,241	57,639	28,127	28,946	17,606
15 - 19	383	82	258	37	6	-	-	-	-
20 - 24	3,671	1,019	1,683	805	133	19	13	-	-
25 - 29	15,337	3,431	6,561	4,110	952	178	66	39	-
30 - 34	29,271	3,812	9,909	11,526	2,948	877	155	37	6
35 - 39	40,404	3,285	9,585	17,983	6,908	2,026	420	172	25
40 - 44	44,043	3,029	7,844	19,073	10,076	3,058	662	258	43
45 - 49	51,146	2,702	8,063	20,712	14,036	4,208	954	386	85
50 - 54	55,427	2,902	7,172	21,806	16,689	5,188	1,243	372	55
55 - 59	60,538	2,397	7,329	24,513	18,631	5,780	1,301	486	100
60 - 64	62,991	2,233	7,037	21,537	19,972	8,398	2,638	980	195
65 - 69	47,253	1,280	3,601	11,998	13,512	8,702	4,357	3,064	740
70 - 74	44,121	1,066	3,405	7,841	9,849	8,034	5,708	5,787	2,431
75 - 79	35,703	663	2,258	3,997	5,568	5,603	4,984	7,771	4,861
80 - 84	24,158	398	1,560	2,316	2,757	3,251	3,237	5,632	5,006
85 & Over	18,631	296	1,573	1,831	2,204	2,317	2,390	3,962	4,058

SR1: Table 27 – Resident Population Aged 65 Years and Over by Main Source of Financial Support, Age Group and Sex

Main Source of Financial Support	Total	Males	Females
Total	344,069	151,541	192,528
Allowances Given by Children	216,030	75,675	140,355
Allowances Given by Spouse	11,048	2,469	8,579
Income from Employment/Business	42,428	30,664	11,764

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Main Source of Financial Support	Total	Males	Females
Savings/Interests Earned	36,757	20,846	15,911
Income from Rental/Dividends/Annuity/Trusts	10,022	5,230	4,792
Other Sources	27,784	16,657	11,127

SR2: Table 1 – Resident Households by Type of Dwelling, Household Size and Tenancy

Type of Dwelling	Total			
	Total	Owner	Tenant	Others
Total	1,145,920	998,875	132,535	14,510
HDB Dwellings*	943,859	836,527	98,279	9,053
1- and 2-Room Flats	52,275	9,610	42,402	263
3-Room Flats	229,718	206,750	20,440	2,529
4-Room Flats	365,423	341,892	20,112	3,419
5-Room and Executive Flats	293,336	276,816	13,950	2,569
Condominiums and Private Flats	128,854	99,628	26,071	3,155
Landed Properties	64,908	57,602	5,459	1,847
Bungalows	8,319	6,977	987	356
Semi-Detached Bungalows	19,507	17,657	1,337	513
Terrace Houses	37,082	32,968	3,135	978
Others	8,298	5,118	2,725	455

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SR2: Table 35 – Resident Households by Monthly Household Income from Work and Number of Working Persons in Household

Monthly Household Income from Work ($)	Total	No Working Person	1 Working Person	2 Working Persons	3 Working Persons	4 Working Persons	5 or More Working Persons
Total	1,145,920	120,010	410,078	424,152	132,195	46,528	12,956
No Working Person	120,010	120,010	-	-	-	-	-
Below 1,000	42,762	-	40,689	2,015	52	6	-
1,000 - 1,499	43,244	-	37,369	5,730	138	6	-
1,500 - 1,999	50,288	-	38,208	11,398	657	19	6
2,000 - 2,499	53,946	-	36,660	15,424	1,754	96	13
2,500 - 2,999	52,560	-	31,892	17,726	2,699	243	-
3,000 - 3,499	56,023	-	31,091	20,680	3,909	330	12
3,500 - 3,999	50,614	-	23,259	21,403	5,289	644	19
4,000 - 4,499	51,441	-	21,545	22,635	6,251	941	68
4,500 - 4,999	46,558	-	16,358	22,211	6,752	1,124	113
5,000 - 5,999	89,160	-	28,391	42,667	14,617	3,149	335
6,000 - 6,999	75,516	-	19,023	37,297	14,402	4,274	520
7,000 - 7,999	64,373	-	14,044	31,755	13,000	4,753	822
8,000 - 8,999	54,902	-	12,010	26,219	10,765	4,905	1,003
9,000 - 9,999	44,259	-	8,286	21,916	8,855	4,174	1,028
10,000 - 10,999	38,857	-	8,538	18,199	7,374	3,521	1,225
11,000 - 11,999	29,771	-	5,380	14,878	5,542	3,010	961
12,000 - 12,999	25,340	-	4,871	12,690	4,546	2,262	972
13,000 - 13,999	20,110	-	3,593	10,054	3,581	1,964	919
14,000 - 14,999	17,175	-	2,972	8,729	3,029	1,710	735
15,000 & Over	119,011	-	25,899	60,524	18,983	9,399	4,205

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Appendix E: CPF Savings

We have included CPF Savings and property as part of the disposable long-term assets that can contribute to reducing the protection gap.

CPF Savings

Age Band	Male		Female		Unspecified		Total	
	Number	CPF Balance	Number	CPF Balance	Number	CPF Balance	Number	CPF Balance
Up to age 20	55,190	43,842	55,165	64,719	0	0	110,355	108,561
>20-25	110,846	663,080	118,517	1,348,811	0	0	229,363	2,011,891
>25-30	126,490	3,913,002	131,117	4,943,875	0	0	257,607	8,856,877
>30-35	148,154	8,090,544	153,614	8,815,557	5	31	301,773	16,906,131
>35-40	167,513	13,255,613	166,347	13,250,164	37	199	333,897	26,505,977
>40-45	176,383	16,671,727	173,153	14,544,852	39	315	349,575	31,216,895
>45-50	224,089	20,149,373	195,346	15,588,057	176	1,272	419,611	35,738,701
>50-55	205,503	21,014,454	179,216	15,201,331	157	1,262	384,876	36,217,048
>55-60	166,884	15,146,722	149,739	10,698,288	129	335	316,752	25,845,345
Above 60	317,646	14,512,520	330,570	9,580,991	211	385	648,427	24,093,895
Unspecified	16,115	30,506	3,894	8,775	4,090	4,898	24,099	44,179
All Groups	1,714,813	113,491,383	1,656,678	94,045,421	4,844	8,696	3,376,335	207,545,500

Source: Annex H, Central Provident Fund Board, Annual Report 2011[1]

The total CPF Savings of was estimated to be S$121.9 billion:

Description	
Number of CPF members aged > 20	3,241,881
Total CPF balance of members aged > 20 (S$)	207,392,760
Average CPF Savings per member (S$)	63,973
Number of Economically Active Adults	1,905,278
Total CPF Savings for the EA population (S$)	121,886,312,236

Notes: "Unspecified" age bands were ignored although unspecified genders were included

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[1] http://mycpf.cpf.gov.sg/NR/rdonlyres/0BEA7777-3527-40B2-BBEA-05E9A73AF38E/0/Annexes.pdf

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Appendix F: LIA Industry statistics summary

Sum assured (S$ '000)		
LIA Quarter 4 Statistics (A)	**Data collected from the industry (B)**	**Compare (B) / (A)**
Individual insurance		
Investment-Linked 91,630	77,233	84%
Participating 172,515	173,173	100%
Non-Participating 264,197	257,486	97%
Total individual insurance 528,341	**507,892**	**96%**
Total group insurance 191,907	**143,445**	**75%**

The total life insurance sum assureds presented in the table above refers to the insurance coverage in the whole industry and includes sum assureds for both economically active and economically inactive individuals.

The data collected from the industry reflects death coverage for Singaporeans and Permanent Residents only. This is hence expected to be lower than the LIA Quarter 4 total industry statistics as the latter also includes death coverage for foreigners.

There is a small discrepancy where the data collected for the Participating policies is slightly higher than the LIA Quarter 4 data. Due to the immateriality of the difference, we have not made any adjustment to the data.

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Appendix G: Home Protection Scheme ("HPS") statistics summary

HPS death benefit coverage as at 31 December 2011		
	No. of persons	Total sum assured (S$ m)
CPFB 2011 Q4 Statistics*	631,296	84,196
CPFB provided data	631,296	84,196
Compare	100.0%	100.0%

*Source: * http://mycpf.cpf.gov.sg/CPF/About-Us/CPF-Stats/CPF_Stats2011q4.htm*

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Appendix H: Glossary

Economically Active / Inactive

An individual is considered to be "Economically Active" if he/she is in employment and contributing to the production and distribution of goods and services. An individual is considered to be "Economically Inactive" otherwise.

Imputed Rent

The imputed rent, has been estimated by the Department of Statistics, Singapore ("Sing Stat") based on the Annual Assessed Values ("AAVs") provided by the Inland Revenue Authority of Singapore. It estimates the consumption expenditure on owner-occupied accommodation using the rental equivalence method, which measures the shelter cost in terms of the expected rental the owner would have to pay if he were a tenant of the premise, i.e. the imputed rental.

Protection Need

The Protection Need is the amount of money (income and/or capital) required by dependants to cover expenses and maintain a reasonable lifestyle following the death of a member of the household. The Protection Need is only relevant for economically active adults that have at least one dependant.

Protection Gap

The Protection Gap is defined as the Protection Need less CPF Savings and existing insurance coverage. The Protection Gap is only relevant to those who are economically active and have at least one dependant.

Unpaid Services

Each individual in the household provides a certain amount of manpower in maintaining the living standards of a household. Some contributions of the individual include carrying out household chores and accompanying children or dependants. No explicit expenses are incurred for these contributions. In the event of death of the individual, such *unpaid services* should desirably be replaced.

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