

CONSULTATION PAPER

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# Review of Policy Owners' Protection Fund

MAS

Monetary Authority of Singapore

## PREFACE

The failure or default of an insurer may result in financial distress to individual policy owners and may impact on the society and economy at large. The existence of a policy owners' protection fund (PPF) to compensate policy owners in the event of the default of any registered direct life or general insurer can help to alleviate the financial hardship to the individual policy owner and hence enhance public confidence in the insurance sector and limit the potential disruption to the society and economy.

2 In Singapore, a PPF scheme has been provided for in the Insurance Act back in 1986. Under the current provisions, the PPF scheme will provide compensation to policy owners for life policies and compulsory insurance policies<sup>1</sup> in the event of the default of an insurance company. To ensure that the PPF scheme remains relevant taking into account market developments, MAS has embarked on a review of the PPF scheme. In its review, MAS studied the equivalent schemes in other jurisdictions. The review is guided by two fundamental principles: the need to provide adequate protection to policy owners while keeping the cost of PPF affordable, and achieving an equitable allocation of cost amongst insurers participating in the scheme.

3 There are two phases in the review. MAS has completed the first phase which covers issues relating to membership, scope of coverage, level of coverage, continuity of insurance coverage, funding method and size of levies. The recommendations are detailed in this consultation paper.

4 The second phase of the review will focus on the implementation details of the PPF scheme including the structure, organisation and mandate of the PPF administrator, PPF payout procedures and public education of the scheme. Further public consultations will be undertaken at suitable junctures in the future.

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<sup>1</sup> "Compulsory insurance policy" is defined in the Insurance Act as any policy or security which satisfies the requirements of the Motor Vehicles (Third-Party Risks and Compensation) Act (Cap. 189) or the Workmen's Compensation Act (Cap. 354)

5 MAS invites interested parties to submit their views and comments on the recommendations set out in this consultation paper. Electronic submission is encouraged. Written comments should be submitted to:

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All comments should be submitted to MAS by 27 Jan 2006.

6 Please note that all submissions received may be made public unless confidentiality is specifically requested for the whole or part of the submission.

**TABLE OF CONTENTS**

<b>Preface</b>	<b>I</b>
<b>Table of Contents</b>	<b>III</b>
<b>1. BACKGROUND</b>	<b>1</b>
<i>Need for Policy Owner Protection</i>	1
<i>Existing PPF Schemes</i>	1
<i>Role of PPF in Enhancing Policy Owner Protection</i>	3
<i>Need For Review</i>	4
<b>2. REVIEW OF THE DESIGN OF PPF SCHEMES</b>	<b>6</b>
<i>Objectives of PPF</i>	6
<i>Key Considerations</i>	7
<b>3. PROPOSED CHANGES TO LIFE INSURANCE PPF SCHEME</b>	<b>9</b>
<i>Membership</i>	9
<i>Scope of Coverage</i>	9
<i>Level of Coverage</i>	11
<i>Continuity of Insurance Protection for Policy Owners</i>	12
<i>Funding of the PPF Scheme</i>	13
<i>Target Fund Size</i>	15
<i>Levies</i>	15
<b>4. PROPOSED CHANGES TO GENERAL INSURANCE PPF SCHEME</b>	<b>18</b>
<i>Membership</i>	18
<i>Scope of Coverage</i>	18
<i>Level of Coverage</i>	19
<i>Continuity of Insurance Protection for Policy Owners</i>	20
<i>Funding of the PPF Scheme</i>	21
<i>Target Fund Size</i>	22
<i>Levies</i>	22
<b>5. SUMMARY OF RECOMMENDATIONS</b>	<b>25</b>
<b>Appendix 1: Application of Caps for Life Insurance Policies</b>	<b>28</b>

## **1. BACKGROUND**

### **NEED FOR POLICY OWNER PROTECTION**

1.1 In Singapore, strong supervisory oversight of the insurance industry is an important tool to protect the interests of policy owners. The key elements of MAS' supervisory oversight include a rigorous licensing process, sound prudential requirements, risk-focused supervision and market surveillance.

1.2 However, in seeking to promote and preserve stability in the financial system, MAS does not aim to prevent the failure or default of any insurer. Regulation or supervision cannot completely prevent losses without making it impossible for insurers to operate effectively. It is therefore important to establish a compensation scheme for policy owners, privately funded by the participating insurers, to reduce the financial impact on individuals should an insurer default.

1.3 Besides alleviating financial distress to the individual policy owners, a policy owners' protection fund (PPF) will engender public confidence in that policy owners will have greater certainty as to how much of their policy monies will be protected and whether the losses they have incurred from insured perils will be compensated should their insurer default. This will help limit possible disruption to the economy and also dispel any public misperception of a government guarantee in the event of insurer default.

### **EXISTING PPF SCHEMES**

1.4 The PPF schemes are currently provided for in the Insurance Act. The schemes provide for the establishment of separate funds for life and general insurance. The schemes will maintain separate accounts for the collection of levies and maintenance of investment income as well as payouts arising from an insurer default and management expenses. There is no cross-subsidisation between the two PPF schemes as claims arising from liabilities in the life insurance fund will be charged to the life insurance PPF while claims arising from liabilities in the general insurance fund will be charged to the general insurance PPF. So far, we have not had the need to activate any of the PPF

schemes as there is no default to date that requires compensations from the two PPF schemes.

### **Life Insurance**

1.5 The existing PPF provisions protect 90% of an insurer's liability on any life policy in the event of the default of the insurer. This applies to both Singapore<sup>1</sup> and offshore<sup>2</sup> life policies that are not reinsurance contracts. This level of protection is applicable even if the life business of the insurer is transferred to another registered insurer or substitute policies are issued by another registered insurer to the affected policy owners. However, the continuity of coverage for affected policy owners cannot be guaranteed as the ability of MAS to secure such coverage may be limited by practical constraints.

1.6 The life insurance PPF is to be funded through levies of up to a maximum of 1% of the gross premium income of a registered insurer's direct life insurance business in the preceding financial year. The levy has to be paid from the shareholders' fund and cannot be charged to the insurance funds.

### **General Insurance**

1.7 The existing PPF provisions protect 100% of an insurer's liability arising from compulsory insurance policies<sup>3</sup> underwritten by the insurer in the event of the default of the insurer. There is no explicit arrangement for continuity of insurance coverage after liquidation for any class of general insurance business.

1.8 The general insurance PPF is to be funded through levies of up to a maximum of 1% of the gross premium income on Singapore policies<sup>4</sup> of a registered insurer's direct

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<sup>1</sup> "Singapore life policy" refers to a life policy issued in the course of the insurer's business in Singapore whereby the policy owner's address is or was an address in Singapore at the date of issue of the policy.

<sup>2</sup> "Offshore policy", in relation to any insurer, means any policy, other than a Singapore policy, issued in the course of the insurer's business in Singapore.

<sup>3</sup> The Motor Vehicle (Third Party Risks and Compensation) Act requires all motor vehicles to be insured against the event of causing death or bodily injury to third parties whilst being driven in Singapore and West Malaysia. The Workmen's Compensation Act requires that employers have in place insurance policies to cover compulsory compensation for workmen specified in the Act. These compensation requirements relate to the death and bodily injury of the workmen in the course of employment. These are the compulsory insurance policies whose liabilities are covered in full under the existing PPF scheme.

<sup>4</sup> For direct general insurance (other than short-term accident and health policies), "Singapore policy" refers to a policy issued in the course of the insurer's business in Singapore, whereby the risk arises in Singapore or where the insured is a person resident in Singapore or is a permanent

general insurance business in the preceding financial year. As with the life insurance PPF, the levies are to be paid from the shareholders' fund and cannot be charged to the insurance funds.

1.9 Sections 3 and 4 of this paper review the coverage of the PPF schemes and recommend changes to the coverage.

## **ROLE OF PPF IN ENHANCING POLICY OWNER PROTECTION**

1.10 The PPF scheme enhances policy owners' confidence in the insurance industry in that it provides assurance to policy owners that their claims on their insurance policies will be met. It also adds clarity on the extent of protection to be expected by the policy owner and the procedures for obtaining compensation.

### **Certainty of Policy Owner Compensation**

1.11 Several regulatory measures are in place to help ensure that an insurer has sufficient assets to meet most, if not all, of its policy liabilities in the event of a winding up. Insurers are required to maintain insurance funds that hold adequate assets to meet all policy liabilities. The total value of assets in each insurance fund is required, at all times, to exceed the total value of liabilities by a minimum amount as prescribed in the regulations. In the event that an insurer defaults or is unable to meet its obligations, the Insurance Act accords priority to the claims of policy owners, ahead of other unsecured creditors, over the assets of the insurer and its insurance funds.

1.12 The above regulatory measures, however, do not guarantee that the insurer's assets will always be adequate to meet policy owners' claims in the event of the insurer's default. The amount of assets available may be reduced by asset flight or impairment, or the amount of liabilities may be larger than estimated. The PPF scheme will therefore provide certainty to policy owners that a prescribed level of payout will be made to the policy owner should the insurer default.

### **Clarity in Policy Owner Compensation**

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establishment in Singapore. For accident and health policies, the definition is the same as that for life policy (see footnote 1).

1.13 An explicit PPF scheme defines and specifies the extent of protection for policy owners. It also helps to ensure that policy owners are compensated within a reasonable time from an insurer's default.

1.14 Under a PPF scheme, clear rules and procedures for timely and accurate policy owner payouts will be drawn up. These will be important in helping to avoid potential financial hardship for policy owners and maintain confidence in the financial system. To make the scheme more effective, communication to the public on the extent of protection they will receive on their insurance policies as well as the procedures for making such claims is equally important. A PPF scheme will thus bring about greater certainty to the policy owner protection framework for the orderly winding up of insurers and compensation to policy owners.

### **NEED FOR REVIEW**

1.15 The existing life and general insurance PPF schemes have not been reviewed since their introduction in the Insurance Act in 1986. The public awareness of PPF is relatively low especially when there has been no default of an insurance company in Singapore so far. The market and regulatory landscape have also changed significantly over the years. Hence it is necessary to regularly review the framework for policy owner protection to keep pace with industry and regulatory developments, and the expanding range of products developed by insurers to meet the needs of policy owners.

### **Changes in Market Landscape and Increasing Complexity of Insurance Operations**

1.16 The insurance market has grown in scope and complexity. Insurers are expanding the scope of the operations and engaging in new financial activities and products. Locally incorporated insurers are also venturing into new markets overseas. As the business activities of the insurers traverse other sectors like banking and asset management, insurers may also be exposed to additional risks, including those arising from outside their core insurance operations.

1.17 The liberalisation of the Singapore insurance sector has also led to an increasing number of foreign insurers setting up their operations here. Again, these insurers may be exposed to greater risks as the risks to the viability of these internationally active insurers



and insurance groups may arise from any part of their global operations and from factors beyond MAS' control.

### **Expanding Range of Products to Meet Policy Owners' Insurance Needs**

1.18 A variety of life and general insurance products have been introduced in the market over the years to meet the different protection and investment needs of individuals. For example, a variety of life insurance products have become popular savings instruments amongst Singaporeans, whilst certain general insurance products, such as personal accident and health insurance, are becoming increasingly popular. Hence, the existing PPF schemes need to be reviewed to ensure that the coverage remains relevant with the increasing range of insurance products purchased by policy owners.

## **2. REVIEW OF THE DESIGN OF PPF SCHEMES**

2.1 The review of the design of the PPF schemes will be based on a set of objectives and key considerations. It will also be guided by the objectives of reducing the impact of insurance failure to the society and economy, protecting individual consumers and dispelling any mistaken public perception of the presence of a government guarantee. In addition, MAS has also taken into account the practices of other jurisdictions in its review.

### **OBJECTIVES OF PPF**

#### **Reduce Discontinuity and Disruption to Society and Economy Arising from Insurer Default**

2.2 Insurance plays an important role in the daily activities of individuals and in the economy. Sudden loss of insurance coverage due to the default of an insurer may affect the ability of individuals to continue carrying out such activities which will have a direct impact on the economy. For example, loss of coverage on compulsory liability insurance required under the Workmen's Compensation Act may lead to interruptions in certain economic activities, such as building and construction. For the individual, loss of mandatory insurance coverage on motor third party bodily injury will prevent him from driving a motor vehicle and cause inconvenience to him. Similarly, the loss of protection in a policy owner's life insurance policy would have an impact on the financial well-being of the policy owner's family in the event of his illness or death.

#### **Protection for Individuals**

2.3 Individuals are usually less financially savvy when purchasing insurance policies compared with corporate customers. Generally, they do not have the resources nor expertise to carry out extensive research on insurance providers and thus are less likely to be able to exercise the same extent of market discipline on insurers as corporate consumers. Therefore, other than the commercial lines covered under the compulsory insurance policies, PPF should focus on providing protection to individuals rather than corporate consumers.

#### **Reduce Moral Hazard of Implicit Government Guarantee**

2.4 Although PPF has been provided for in the Insurance Act for many years, public awareness of its existence is low. The setting up of more explicit PPF schemes will help to raise public awareness and dispel perceptions of the presence of a government guarantee on insurance policy claims in the event an insurer defaults. Government guarantees are not advisable as they weaken market discipline and undermine financial system stability. This is because insurers may have less incentive to manage their business prudently, taking comfort that there will be a government bail-out.

## **KEY CONSIDERATIONS**

2.5 The review of the design of the existing PPF schemes is further guided by the principles of essential and effective coverage, cost-effectiveness, equitable allocation of cost and minimisation of moral hazard. These principles are in line with the objectives of PPF.

### **Essential and Effective Coverage**

2.6 In line with the objective of reducing discontinuity and disruption to society and the economy, the PPF schemes should cover insurance policies that are commonly purchased by consumers. The types of insurance to be covered by PPF schemes should also be those that would have significant impact on individuals should the insurer default.

### **Cost-effectiveness**

2.7 Contribution to PPF schemes should not impose undue costs to the insurance industry. Financing of PPF schemes should also not undermine the financial viability of insurers in Singapore.

### **Equitable Allocation of Cost**

2.8 PPF levies to be paid by insurers should be commensurate with the risk of default of the individual insurer. The levies to be imposed on each insurer should seek to minimise both moral hazard and the amount of cross-subsidisation of weaker insurers by stronger, well-managed insurers.

### **Market Discipline**

2.9 PPF schemes should not dilute the incentive for insurers, creditors and policy owners to exercise prudence and market discipline. The PPF scheme should be explicit,

well defined and designed to cover only up to a certain proportion of the policy claims, and not in full except for compulsory insurance policies. The above measure will instil discipline on insurers to manage their business prudently. On the other hand, the policy owner has to assume some personal responsibility when deciding which policy to purchase and from which insurer. This will help to dispel the mistaken perception of any government bailout of insurers.

2.10 Sections 3 and 4 of this consultation paper set out the main recommendations following MAS' review of the two existing life and general insurance PPF schemes. For each PPF scheme, these will be discussed in the following order: membership, scope of coverage, level of coverage, continuity of insurance coverage, funding method, target fund size and levies.

### 3. PROPOSED CHANGES TO LIFE INSURANCE PPF SCHEME

#### MEMBERSHIP

3.1 Under the existing life insurance PPF scheme, all registered direct life insurers writing life business<sup>5</sup> are required to participate in the life insurance PPF. Professional reinsurers and captive insurers are excluded.

3.2 Life insurers' participation in the life insurance PPF scheme should continue to be compulsory so as to ensure that all eligible policy owners are covered.

*MAS recommends that the revised life insurance PPF scheme should continue to explicitly cover all registered direct life insurers, except professional reinsurers and captive insurers, and that participation be made compulsory.*

#### SCOPE OF COVERAGE

3.3 The existing life insurance PPF scheme covers all Singapore and offshore life policies. Life policies refer to any insurance policy that pays a benefit that is contingent on the survival or death of the life insured under the policy, and does not include any accident and health policies written by the life insurers.

3.4 The loss of protection from a life policy can have a major impact on the financial security of the policy owners as some of them would not be able to repurchase new cover on the same terms as the original policy because they are either already advanced in age or their health may have deteriorated. Life policies have also become increasingly common and popular as a wealth accumulation product in Singapore. Loss by policy

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<sup>5</sup> This will include short-term Accident and Health (A&H) business booked in life insurance funds. Under the current health insurance regulatory framework, apart from writing life policies, life insurers are allowed to write both short-term and long-term A&H policies, whilst general insurers are only allowed to write short-term A&H policies.

Short-term A&H policies are policies where the policy durations do not exceed 5 years and can be unilaterally cancelled by insurers. Long-term A&H policies are those with policy durations exceeding 5 years and cannot be unilaterally cancelled by insurers.

Examples of short-term A&H policies include medical expense insurance, disability income insurance, long-term care insurance, critical illness insurance, and personal accident insurance. Long-term A&H policies include such products as well with the exception of personal accident insurance.

owners of their savings from such policies due to the default of an insurer could cause significant disruption to the various financial planning needs of individuals. The revised life insurance PPF scheme should continue to cover life policies of individuals upon default of the insurer. As the amount of offshore life policies is small at the moment and some of these policies belong to Singapore citizens or residents, we propose to continue with the coverage of offshore life policies.

3.5 Most life policies are taken up by individuals, though some life policies may exist in the form of group policies that are taken up by employers for the benefit of their employees. As most group policies are taken up to protect the individual employees against unexpected events, not unlike the objective of individual policies, the life insurance PPF scheme should continue to cover group life policies as well.

3.6 With inflating healthcare costs and an ageing population, a large part of the Singapore population owns some form of accident and health (A&H) insurance coverage. Health insurance has become an integral part of healthcare financing, in addition to MediSave and personal savings. MAS proposes to cover all short-term and long-term A&H policies written by life insurers<sup>6</sup> in the revised life insurance PPF scheme, with both individual and group policies included as this is in line with the objective of PPF of ensuring social stability and coverage for individuals.

3.7 Many of the policies underwritten by life insurers have some elements of non-guaranteed benefits, such as bonuses to be accrued to participating policies in the future, and the fund value of investment-linked policies. These benefits are usually determined either directly (for investment-linked policies) or indirectly by the value of assets backing the policies. It is clear that these benefits are not guaranteed and the deterioration of the assets backing the policies would have an impact on the size of these benefits, even in the case with a solvent insurer that continues to operate soundly. Therefore, it is not reasonable for the revised life insurance PPF scheme to cover benefits that have not been attributed to the insurance policies as guaranteed benefit at the point of default.

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<sup>6</sup> As mentioned in footnote 5, life insurers are allowed to write both short-term and long-term A&H policies under the current regulatory framework. These A&H policies will be covered in the revised life insurance PPF scheme. We will cover the short-term A&H policies written by general insurers in Section 4 later.

*MAS recommends that the revised life insurance PPF scheme continue to protect all life policies' guaranteed benefits, and that the coverage be extended to all short-term and long-term accident and health policies written in the life insurance fund. The life insurance PPF coverage will apply for both Singapore and offshore policies, as well as both individual and group policies.*

3.8 The revised life insurance PPF scheme will continue to exclude life business written by overseas branches of registered direct life insurer incorporated locally in Singapore since the objective is to reduce the disruption to Singapore residents and economy if any of the registered insurers operating here were to default. For the same reason, it will also cover the life business written by a branch in Singapore of a registered direct life insurer that is incorporated overseas.

*The revised life insurance PPF scheme will continue to exclude life business written by overseas branches of registered direct life insurer incorporated locally in Singapore. It will also cover the life business written by a branch in Singapore of a registered direct life insurer incorporated overseas.*

## **LEVEL OF COVERAGE**

3.9 The existing life insurance PPF scheme covers 90% of the amount of any liability of all life policies. To maintain the incentive for consumers to exercise some market discipline in their selection of insurers and keep the PPF scheme affordable at the same time, the revised life insurance PPF scheme will continue to protect 90% of the amount of any liability of all life policies. It is also proposed that the protection for A&H policies be similarly set at 90% of the amount of any liability of A&H policies.

3.10 One of the key objectives of PPF is to minimise the impact on the financial well-being of the policy owner's family in the event of his illness or death. As such, PPF should be designed to provide basic coverage for all policy owners to ensure that their families have sufficient financial resources to tide over the loss. Coupled with the objective of keeping PPF affordable, it is reasonable to impose some form of cap on the coverage.

3.11 MAS proposes to introduce an absolute cap on policy benefits covered by the revised life insurance PPF scheme. A cap of S\$500,000 on the sum assured and S\$100,000 on the surrender value would fully cover about 98% of all policy owners without unduly raising the cost to the PPF. The cap will apply on the aggregate sum

assured and surrender value of all life policies owned by the policy owner and issued by the same insurer. In other words, if a policy owner has purchased life policies from more than one insurer, his policies will be aggregated for each insurer and subjected to the caps separately.

3.12 For simplicity and clarity on the level of coverage for policies with benefits above the cap, a simple ratio approach will be used to derive a single protected coverage ratio for all the policies of the affected policy owner. Examples of the application of this simple ratio approach can be found in **Appendix 1**. The cap will not apply to disability income, long-term care and medical expense insurance<sup>7</sup> policies. All other policies covered by life insurance PPF will be aggregated and subjected to the cap.

*MAS recommends that the revised life insurance PPF scheme provide compensation for 90% of the amount of any liabilities of all life and accident and health policies.*

*With the exception of disability income, long-term care and medical expense insurance policies, all other policies will be subject to an aggregate cap of S\$500,000 for sum assured and S\$100,000 for surrender value. The aggregate cap will apply on the aggregate sum assured and surrender value of all life policies owned by the policy owner and issued by the same insurer.*

*A simple ratio method will be used to derive the coverage ratio of the affected policy owner.*

## **CONTINUITY OF INSURANCE PROTECTION FOR POLICY OWNERS**

3.13 As policies written by life insurers tend to be long-term in nature, early termination of the policies could cause a substantial loss in policy value. This loss can occur due to low surrender value or inability to take up new insurance cover if the life insured is in poor health or already advanced in age. The existing life insurance PPF scheme provides for the transfer of policies out of a life insurer in default or in financial difficulties. This mechanism should be retained for the revised life insurance PPF scheme.

3.14 Nevertheless, depending on the market conditions at the time of the default of an insurer, it may not be reasonably practicable to successfully transfer all policies in the

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<sup>7</sup> Medical expense insurance policies are designed to reimburse medical costs resulting from accidents and sicknesses (such as inpatient and outpatient expenses). Examples include basic medical expense insurance (like hospital and surgical insurance) and major medical expense insurance (like MediShield).



failed insurer to other registered insurers. In such cases, it would be useful to provide the life insurance PPF scheme the flexibility to take over and run-off the portfolio of policies<sup>8</sup> that cannot be transferred or allow the liquidator to compensate policy owners up to the PPF coverage limit and terminate the policies accordingly. The decision whether to run-off the policies will depend on, among other considerations, the ability of the PPF administrator to administer the portfolio effectively as well as the costs and practicality of doing so. Otherwise, the remaining policies will have to be terminated and policy owners compensated accordingly. The 90% limits and absolute caps mentioned in paragraphs 3.9 and 3.11 respectively will still apply in the case of transfer of policies or cash settlement<sup>9</sup>.

*MAS recommends that the revised life insurance PPF scheme continue to fund for the transfer of inforce policies out of a life insurer in default or in financial difficulties as far as the transfer is reasonably practicable in the market conditions prevailing at the time of the default.*

*Where it is not practicable for remaining policies to be transferred, the revised life insurance PPF scheme will be given the flexibility to run-off the portfolio of policies or allow the liquidator to compensate policy owners up to the PPF coverage limit and terminate the policies accordingly.*

*The 90% limit and absolute caps on coverage will apply in the case of transfer of policies or cash settlement.*

## **FUNDING OF THE PPF SCHEME**

3.15 The existing life insurance PPF scheme has adopted a post-funding approach, where levies are imposed on participating insurers only when there is a need to make payouts following the default of an insurer. So far, there has been no necessity to impose levies on the insurance industry. Equivalent schemes in other jurisdictions have adopted a range of approaches – post-funding, pre-funding<sup>10</sup>, and a combination of pre-funding with some additional post-funding.

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<sup>8</sup> This refers to the process whereby the life insurance PPF will take on the existing portfolio of policies and discharge the liabilities by paying claims on policy benefits as they arise over the full term of the policies, assuming premiums continue to be paid by the policy owners, where applicable.

<sup>9</sup> PPF scheme will settle in cash an amount equal to 90% of the liabilities of the policies determined based on the benefit level of the policies after applying the absolute caps.

<sup>10</sup> Pre-funding refers to building up a fund through levy contributions from the participating insurers, and drawing upon that fund to meet payouts to policy owners in the event of the insurer default. This contrasts with post-funding where there are no levy contributions prior to the insurer default, and levies are only imposed after the default has happened.

3.16 Compared with a pre-funding approach, a post-funding approach does not impose an immediate cost to the insurance industry and may appear to be more amenable to the industry. However, there are several important advantages of a pre-funding approach. Firstly, pre-funding ensures that a liquid pool of funds is readily available to make compensation to policy owners promptly. Secondly, it reduces the degree of cross-subsidisation among insurers in the provision of PPF, as the failed insurer would also have contributed to the fund. Thirdly, on the premise that insurance defaults are more likely in a weak financial system, accumulated funds from pre-funding levies could mitigate the pro-cyclical effect that large post-funding levies can have on insurers. Fourthly, the existence of pre-funding will enhance public confidence in PPF.

3.17 MAS proposes that a credible life insurance PPF be established through pre-funding levies from participating insurers. In the event of an insurer default, the cost of a pre-funding approach would generally not be far off from that of a post-funding approach. Marginal difference would still exist in the form of opportunity cost, since the fund would be invested in safer and more liquid assets, thus yielding potentially lower returns when compared with the investment profile of insurers in general. However, the benefits of a pre-funding approach mentioned in the previous paragraph would outweigh this additional marginal cost.

3.18 When adopting pre-funding for PPF, the fund can either be allowed to grow indefinitely or a target fund size could be set, beyond which the levy contributions can be reduced or temporarily stopped. To minimise the opportunity cost of maintaining a large fund, the PPF will temporarily cease to collect levies from insurers once the target fund size is reached. However, the target fund size will be reviewed regularly to ensure that it remains adequate, taking into account market developments and the changes in the risk profiles of insurers.

3.19 It is, however, necessary that the post-funding mechanism continue to be available even in the case when pre-funding is adopted. Post-funding may be necessary in the event that the PPF is unable to fully meet the cost of payouts when an insurer defaults.

*MAS proposes that a credible pre-funded life insurance PPF be established through levies from participating institutions.*

*The current post-funding mechanism will also be available to keep the cost of PPF low and meet cost of payouts when an insurer defaults.*

## **TARGET FUND SIZE**

3.20 In deciding on a suitable pre-funded target fund size for the life insurance PPF, considerations have to be given to the risk profiles and financial strength of the registered direct life insurers in Singapore and the local regulatory framework in ensuring that insurers maintain sufficient assets to meet their liabilities. Taking these factors into account, MAS considers a target fund size of 0.2% of the liabilities of the classes of business which are covered by the PPF scheme ("protected liabilities") to be adequate for the registered direct life insurers in Singapore. This is within the range of fund sizes of the PPF equivalent in a number of countries. It translates into a fund size of S\$60 million based on the protected liabilities of life insurers at end-2003.

3.21 The target fund size would be built up over a period of 10 years. This is similar to the build-up period of the Deposit Insurance scheme that will be introduced to protect deposits in banks in Singapore.

*MAS recommends that the revised life insurance PPF scheme target a fund size of 0.2% of protected liabilities to be built up over a 10-year period.*

## **LEVIES**

### **Risk-based Levy System**

3.22 In addition to the objective of keeping the cost of the life insurance PPF scheme affordable, MAS also considers that it is important to allocate the funding of PPF equitably among participating insurers. The levy that is charged could be a uniform rate applied on all insurers, or a variable rate that is determined based on the risk assessment of the individual insurer.

3.23 A uniform rate contribution structure, while simple, has its disadvantages. Firstly, it does not recognise differences in the risk profiles of life insurers and hence the differing levels of expected losses that each insurer is exposing the PPF to. Well-managed, highly

capitalised insurers would in fact be subsidising riskier insurers for the protection the latter enjoy. Secondly, uniform rate contributions do not provide an incentive for insurers to improve their risk profiles in order to enjoy a lower PPF levy rate.

3.24 Under a risk-based levy system, the levy to be charged to individual life insurers will be dependent on the insurer's supervisory risk rating. Those with a higher risk rating will pay a higher levy than those with a lower risk rating.

*MAS recommends that the rate of life insurance PPF levy vary according to the risk profile of each life insurer.*

### **Size of Levies**

3.25 Levies can be set as a percentage of premium income from the protected classes of business or protected liabilities. Imposing levies based on premium income may not be representative of the size of exposure of the PPF. Firstly, a significant portion of the premiums collected by life insurers relate to providing non-guaranteed benefits which are not covered under the life insurance PPF scheme. Secondly, life insurance products are long term in nature and it is common to pre-fund future benefits through the level premiums paid in the early years. The risk of the policy would vary by the duration of the policy based on the level of accumulated pre-funding rather than the premium income paid during the year. On the other hand, imposing levy based on protected liabilities would be more reflective of the exposure of PPF to each insurer as it is more directly linked to the amount of payouts that will need to be made by the life insurance PPF scheme in the event of that an insurer defaults. MAS recommends that levies be imposed on the protected liabilities for life insurance PPF scheme.

3.26 As a result of the build-up period proposed in paragraph 3.21 above, the average annual levy on direct life insurers should be 0.02% of protected liabilities over a ten-year period.

3.27 In coming up with a risk-based levy structure where the levy would be commensurate with the insurer's supervisory risk rating, and achieving an average annual levy of 0.02% of protected liabilities over the build-up period, MAS proposes the following risk-based levy structure:

<b>Supervisory Rating<sup>11</sup></b>	<b>Life Insurance PPF Levy</b>
Low	0.017%
Medium Low	0.020%
Medium High	0.035%
High	0.150%

3.28 The risk-based levy structure would be subject to review in the future and may be changed closer to the date of implementation in the light of new information available.

*To keep the PPF scheme affordable, MAS recommends that average annual life insurance PPF levies should be 0.02% of protected liabilities over a ten-year period. This may be reduced when the target fund size is reached. The risk-based levies would range from 0.017% to 0.15% of protected liabilities, depending on the insurer's supervisory risk rating.*

### **Charging Levy to Insurance Funds**

3.29 The existing provisions in the Insurance Act prohibit insurers to charge levies paid for the life insurance PPF to the insurance funds. As life insurance PPF is for the protection of policy owners, it is not unreasonable or inequitable for the levies to be charged to the insurance funds. Charging the cost of life insurance PPF scheme to the insurance funds would not compromise the financial strength of the insurance funds as these insurance funds would have to meet statutory solvency requirements on an ongoing basis. However, some safeguards should be put in place to ensure that insurers do not charge their insurance funds PPF levies to the extent that the solvency of the funds is threatened. The amount of life insurance PPF levies that can be charged to the insurance funds will be capped at 1% of gross premium income of the fund or the average annual levy that the life insurance industry is required to pay to the PPF during the year, whichever is lower.

*MAS recommends that life insurance PPF levies can be charged to the insurance funds, subject to the cap of 1% of gross premium income attributable to each fund and the average annual levy charged to the life insurance industry for the year, whichever is lower.*

<sup>11</sup> A low supervisory rating indicates lower risk.

#### 4. PROPOSED CHANGES TO GENERAL INSURANCE PPF SCHEME

##### MEMBERSHIP

4.1 Currently, all registered direct general insurers, except captive insurers and specialist insurers<sup>12</sup>, are members of the general insurance PPF scheme. Professional reinsurers are excluded from the membership.

4.2 Participation in the general insurance PPF scheme should continue to be compulsory so as to ensure that all eligible policy owners are covered.

*MAS recommends that the revised general insurance PPF scheme explicitly cover all registered direct general insurers, except captive insurers and specialist insurers, and membership be made compulsory. Professional reinsurers are excluded from the membership.*

##### SCOPE OF COVERAGE

4.3 The existing general insurance PPF scheme covers all liabilities arising from compulsory insurance policies. As these policies are mandatory and widely purchased, protecting such claims is consistent with the objectives for PPF. Hence the protection of the liability arising from compulsory insurance policies should continue to be included under the general insurance PPF scheme.

4.4 In line with the objective of protecting individuals, the coverage of the general insurance PPF scheme, which currently covers only compulsory insurance policies, should be extended to include other personal lines of insurance sold by a registered direct insurer. MAS has surveyed the practices of general insurance PPF schemes in other jurisdictions and found that it is the common practice to cover major personal lines of insurance.

4.5 There are many different classes of personal lines business, many of which are not widely taken up by individuals. Having considered the number of policies taken up and the financial impact of losses to individuals for the different classes of personal lines

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<sup>12</sup> Specialist insurers refer to protection and indemnity clubs, financial guarantee and credit insurers etc. as prescribed by MAS.

of general insurance business, MAS proposes to extend general insurance PPF protection to Singapore policies with the following insurance coverage:

- Personal motor insurance;
- Individual and group accident and health (A&H) insurance<sup>13</sup>;
- Personal property (structure and contents) insurance; and
- Foreign domestic maid insurance.

4.6 The existing general insurance PPF scheme covers Singapore policies only. Unlike life insurance business, most of the offshore business relates largely to risks undertaken by corporate institutions taking place outside Singapore, which would have less of a direct impact on the Singapore residents and economy. For these reasons, MAS recommends that the general insurance PPF scheme continue to restrict its coverage to Singapore policies only.

*MAS recommends that the revised general insurance PPF scheme continue to protect any liabilities arising from motor third party bodily injury and Workmen's Compensation Act liability insurance policies, and that the scheme be extended to protect selected personal lines insurance policies which are Singapore policies.*

4.7 The revised general insurance PPF scheme will continue to exclude general business written by overseas branches of registered direct general insurer incorporated locally in Singapore. It will also cover the general business written by the branch in Singapore of a registered direct general insurer incorporated overseas. The rationale has been previously discussed in paragraph 3.8.

*The revised general insurance PPF will continue to exclude general business written by overseas branches of registered direct general insurer incorporated locally in Singapore. It also will cover general business written by the branch in Singapore of a registered direct general insurer incorporated overseas.*

## **LEVEL OF COVERAGE**

4.8 Under the existing general insurance PPF scheme, 100% of any liability arising from compulsory insurance will be covered. The general insurance PPF scheme should continue to accord the same level of protection to these compulsory insurance policies

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<sup>13</sup> This refers to the short-term A&H policies written by the general insurers. Short-term and long-term A&H policies written by the life insurers would also be covered in the revised PPF scheme as mentioned in Paragraph 3.6.

because third party claimants cannot be reasonably expected to exercise market discipline in the selection of insurers, since they are not the ones taking up these insurance policies.

4.9 Conversely, the selected personal lines insurance policies to be protected under general insurance PPF scheme are generally not compulsory in nature and do not involve third party claimants. Having the general insurance PPF scheme cover the liabilities on the selected personal lines insurance policies in full will result in moral hazard as the consumers would not be required to exercise discretion in the purchase of insurance policies. A reduced level of coverage would help to instil some market discipline on both insurers and consumers. Therefore, MAS recommends that the personal lines be covered at 90% of their liabilities similar to the level of protection for life insurance business protected under the life insurance PPF scheme.

4.10 MAS does not recommend imposing an absolute cap on the coverage amount as there is generally no relationship between the amount of losses incurred and the level of sophistication of the policyholder. General insurance policy typically indemnifies losses up to the amount of the losses incurred.

*MAS recommends that the revised general insurance PPF scheme continue to provide 100% coverage for compulsory insurance policies. As for personal lines insurance policies, compensation will be provided for 90% of the liabilities. No caps on the dollar amount of coverage will be imposed.*

#### **CONTINUITY OF INSURANCE PROTECTION FOR POLICY OWNERS**

4.11 The existing general insurance PPF scheme does not explicitly ensure the continuity of insurance protection for policy owners. For greater certainty, the revised general insurance PPF scheme would explicitly state the cut-off date for claims to be recognised and protected by the PPF scheme after the default of an insurer.



4.12 General insurance contracts are usually short-term in nature, with most contracts renewable annually. The insurer also has the right to cancel the policy by giving prior notice to the insured. On default of an insurer, there is a possibility that the insurance coverage will be cancelled. This ambiguity may potentially lead to unnecessary disruptions to the daily activities of individuals insured by the defaulted company.

4.13 To address the possibility of a sudden cessation of coverage for these policies, the revised general insurance PPF scheme will recognise and protect claims incurred within a reasonable time period after the default of the insurer to provide policy owners reasonable time to source for a replacement in insurance coverage. MAS proposes that this period be 30 days after the winding up order.

*MAS recommends that the revised general insurance PPF scheme protect policy owners on claims incurred up to 30 days after the winding up order, in respect of policies covered by the general insurance PPF scheme.*

#### **FUNDING OF THE PPF SCHEME**

4.14 As is the case for the life insurance PPF scheme, the existing general insurance PPF scheme has so far not imposed levies on the insurance industry. It has also adopted the post-funding approach whereby levies are imposed only when there is a need to make payouts in the event of an insurer default.

4.15 MAS proposes to also adopt a pre-funding approach for the general insurance PPF scheme with the same features and for the same reasons as the life insurance PPF scheme discussed in paragraphs 3.16 and 3.17 above.

*MAS proposes that a credible pre-funded general insurance PPF be established through levies from participating institutions.*

*The current post-funding mechanism will also be available to keep the cost of PPF low and meet cost of payouts when an insurer defaults.*

## TARGET FUND SIZE

4.16 For the revised general insurance PPF scheme, MAS proposes a target fund size of 1.5% of the liabilities of the protected classes of business under PPF scheme ("protected liabilities"). This is equivalent to S\$16 million based on the exposure of the protected liabilities at end-2003.

4.17 The target fund size will also be built up over a period of 10 years as is the case for the life insurance PPF scheme.

*MAS recommends that the revised general insurance PPF scheme target a fund size of 1.5% of the liabilities of the protected classes of business to be built up over a 10-year period.*

## LEVIES

### Risk-based Levy System

4.18 To allocate the funding of general insurance PPF equitably among participating general insurers, MAS proposes to adopt a risk-based levy system as discussed in paragraph 3.24. General insurers will be charged a rate of levy that is commensurate with their risk profile.

*MAS recommends that the rate of general insurance PPF levy vary according to the risk profile of each insurer.*

### Size of Levies

4.19 Levies can be set as a percentage of premium income from the protected classes of business or protected liabilities. The latter is more directly relevant to the payouts that will be incurred by PPF in the event of an insurer default. However, general insurance liabilities tend to be more volatile and are much more difficult to predict. On the other hand, premium income can be determined more objectively and can be a suitable proxy for the liabilities of the general insurers. Therefore, we recommend that the levies be calculated as a percentage of premium income for general insurance PPF.

4.20 As a result of the 10 years build-up period proposed in paragraph 4.17 above, the average annual levy on direct general insurers should be 0.15% of premium incomes of protected classes of business covered by general insurance PPF scheme over a ten-year period.

4.21 In coming up with a risk-based levy structure and achieving an average annual levy of 0.15% of premium incomes of protected classes of business over the build-up period, MAS proposes the following risk-based levy structure:

<b>Supervisory Rating<sup>14</sup></b>	<b>General Insurance PPF Levy</b>
Low	0.13%
Medium Low	0.15%
Medium High	0.27%
High	1.15%

4.22 The risk-based levy structure would be subject to review in the future and may be changed closer to the date of implementation in the light of new information available.

*To keep the PPF scheme affordable, MAS recommends that average annual general insurance PPF levies should be 0.15% of gross premium income of protected classes of business over a ten-year period for active direct general insurers. This may be reduced when the target fund size is reached. The risk-based levies would range from 0.13% to 1.15% of gross premium income, depending on the insurer's supervisory risk rating.*

4.23 In the case of direct general insurers that have ceased to take on new business ("run-off"), MAS proposes to impose a reduced flat levy based on protected liabilities instead, since there will not be any premium income for these general insurers, but the existing policies could still be subject to the risk of the insurer failing. The size of the reduced flat levy will be determined at a later date but is unlikely to have any impact on the target fund size given the small size of insurers on run-off.

*MAS also proposes a reduced flat levy on protected liabilities, to be determined later, for run-off direct general insurers.*

### **Charging Levy to Insurance Funds**

4.24 The existing legal provisions in the Insurance Act forbid levies paid into general insurance PPF to be charged to the insurance funds. As discussed earlier in paragraph

<sup>14</sup> A low supervisory rating indicates lower risk.

3.29 for the life insurance PPF scheme, it is reasonable for the general insurance PPF levies to be charged to the insurance funds as well. Similar safeguards as discussed in the life insurance PPF scheme should be put in place to ensure that insurance funds are not bearing general insurance PPF levies to the extent that solvency of the funds is threatened. MAS proposes that the amount of general insurance PPF levies that can be charged to the insurance funds be capped at 1% of gross premium income of the fund or the average annual levy as described in paragraph 4.21 that the general insurance industry is required to pay to the PPF during the year, whichever is lower.

*MAS recommends that general insurance PPF levies can be charged to the insurance funds, subject to the cap of 1% of gross premium income attributable to each fund and the average annual levy charged to the general insurance industry for the year, whichever is lower.*

## 5. SUMMARY OF RECOMMENDATIONS

5.1 The following table summarises the key recommendations for the revised life insurance and general insurance PPF schemes.

	Life Insurance PPF	General Insurance PPF
<b>1 Membership</b>		
Which insurers have to participate?	<input type="checkbox"/> Will explicitly cover all registered direct life insurers, except captive insurers.  <input type="checkbox"/> Membership will be compulsory.	<input type="checkbox"/> Will explicitly cover all registered direct general insurers, except captive insurers and specialist insurers.  <input type="checkbox"/> Membership will be compulsory.
<b>2 Scope of Coverage</b>		
Which business is covered?	<input type="checkbox"/> Continue to cover all life policies' guaranteed benefits.  <input type="checkbox"/> Will be extended to cover all accident and health policies written in the life insurance fund.  <input type="checkbox"/> Will apply to both Singapore and offshore policies, as well as both individual and group policies.  <input type="checkbox"/> Will not cover the life insurance business written by overseas branches of registered life insurers incorporated locally.  <input type="checkbox"/> Only the life insurance business written by the branch office in Singapore will be covered for registered life insurers incorporated overseas.	<input type="checkbox"/> Continue to cover the liabilities arising from policies of motor third party bodily injury and Workmen's Compensation Act liability insurance.  <input type="checkbox"/> Will be extended to cover Singapore policies with selected personal lines insurance coverage that are important to individual policy owners.  <input type="checkbox"/> Will not cover the general insurance business written by overseas branches of registered general insurers incorporated locally.  <input type="checkbox"/> Only the general insurance business written by the branch office in Singapore will be covered for registered general insurers incorporated overseas.

	<b>Life Insurance PPF</b>	<b>General Insurance PPF</b>
<b>3 Level of Coverage</b> How much is being protected?	<ul style="list-style-type: none"> <li><input type="checkbox"/> Will protect 90% of the amount of all liabilities of protected policies.</li> <li><input type="checkbox"/> With the exception of disability income, long-term care and medical expense insurance policies, all other protected policies will be subject to an absolute cap of S\$500,000 for sum assured and S\$100,000 for surrender value. A simple ratio method will be used to derive the coverage ratio of the affected policy owner.</li> <li><input type="checkbox"/> The aggregate cap will apply on the aggregate sum assured and surrender value of all life policies owned by the policy owner and issued by the same insurer.</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Will continue to protect 100% of the amount of all liabilities arising from policies of motor third party bodily injury and Workmen's Compensation Act liability insurance.</li> <li><input type="checkbox"/> Will provide compensation for 90% of the amount of any liabilities for personal lines insurance policies.</li> <li><input type="checkbox"/> No caps imposed.</li> </ul>
<b>4 Continuity of Coverage</b> What would happen upon liquidation?	<ul style="list-style-type: none"> <li><input type="checkbox"/> Provides for the transfer of in-force policies from the defaulted life insurer to another insurer as long as the transfer is reasonably practicable. The 90% limit and absolute cap on coverage will apply.</li> <li><input type="checkbox"/> For remaining policies that cannot be transferred or settled by the liquidator, the PPF will be given the flexibility to run-off the portfolio of policies where practicable for it to do so.</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Will compensate policy owners on claims incurred, up to 30 days after the winding up order, in respect of policies covered by general insurance PPF.</li> </ul>
<b>5 Method of Funding</b> How is the PPF scheme funded?	<ul style="list-style-type: none"> <li><input type="checkbox"/> Will establish a pre-funded PPF through levies from participating insurers.</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Will establish a pre-funded PPF through levies from participating insurers.</li> </ul>

	<b>Life Insurance PPF</b>	<b>General Insurance PPF</b>
<p><b>5 Method of Funding</b> How is the PPF scheme funded?</p>	<p><input type="checkbox"/> Will retain the current post-funding mechanism to meet cost of failures that may exceed the target fund size.</p>	<p><input type="checkbox"/> Will retain the current post-funding mechanism to meet cost of failures that may exceed the target fund size.</p>
<p><b>6 Target Fund Size</b> What is the target fund size for PPF?</p>	<p><input type="checkbox"/> Will target a fund size of <u>0.2% of protected liabilities</u> to be built up over a 10-year period.</p>	<p><input type="checkbox"/> Will target a fund size of <u>1.5% of protected liabilities</u> to be built up over a 10-year period.</p>
<p><b>7 Levies</b> How much would participating insurers contribute? How would levies be charged?</p>	<p><input type="checkbox"/> Average annual levies will be <u>0.02% of protected liabilities</u> over the 10-year period.</p> <p><input type="checkbox"/> The risk-based levies will range from 0.017% to 0.15% of protected liabilities, depending on the insurer's supervisory risk rating.</p> <p><input type="checkbox"/> PPF levies can be charged to the insurance funds, subject to a cap of 1% of gross premium income attributable to each fund and the average annual levy charged to the life insurance industry for the year, whichever is lower.</p> <p><input type="checkbox"/> Levies may be reduced or stopped when the target fund size is reached.</p>	<p><input type="checkbox"/> Average annual levies will be <u>0.15% of gross premium income of protected classes of business</u> over the 10-year period for <u>active direct general insurers</u>.</p> <p><input type="checkbox"/> The risk-based levies will range from 0.13% to 1.15% of gross premium income of protected classes of business, depending on the insurer's supervisory risk rating.</p> <p><input type="checkbox"/> For <u>run-off direct general insurers</u>, a reduced flat levy (to be determined) of protected liabilities will be charged.</p> <p><input type="checkbox"/> PPF levies can be charged to the insurance funds, subject to a cap of 1% of gross premium income attributable to each fund and the average annual levy charged to the general insurance industry for the year, whichever is lower.</p> <p><input type="checkbox"/> Levies may be reduced or stopped when the target fund size is reached.</p>

**APPENDIX 1: APPLICATION OF CAPS FOR LIFE INSURANCE POLICIES****Scenario (a): Total policy benefits do not exceed caps**

Mr Tan owns 3 policies from ABC Insurer, which defaults. Details of his policies are as follows:

	<b>Sum Assured</b>	<b>Surrender Value</b>
Policy 1	\$50,000	\$10,000
Policy 2	\$100,000	\$0
Policy 3	\$150,000	\$8,000
<b>Total</b>	<b>\$300,000</b>	<b>\$18,000</b>
PPF Benefit Caps	\$500,000	\$100,000
<b>PPF Protects 90% of Benefits</b>	<b>\$270,000</b>	<b>\$16,200</b>

Mr Tan's policies do not exceed PPF benefit caps and hence will be protected for 90% of policy benefits. Upon the default of the insurer, Mr Tan's policies are covered by PPF up to the following respective amounts:

	<b>Sum Assured</b>	<b>Surrender Value</b>
Policy 1	\$45,000	\$9,000
Policy 2	\$90,000	\$0
Policy 3	\$135,000	\$7,200
<b>Total</b>	<b>\$270,000</b>	<b>\$16,200</b>

**Scenario (b): Total sum assured exceeds caps, whilst total surrender value does not**

Mr Lee owns 2 policies from ABC Insurer, which defaults. Details of his policies are as follows:

	<b>Sum Assured</b>	<b>Surrender Value</b>
Policy 1	\$500,000	\$10,000
Policy 2	\$100,000	\$0
<b>Total</b>	<b>\$600,000</b>	<b>\$10,000</b>
PPF Benefit Caps	\$500,000	\$100,000
<b>PPF Protects 90% of Benefits, Adjusted for Benefit Caps</b>	<b>82.5% x \$600,000 = \$495,000</b>	<b>82.5% x \$10,000 = \$8,250</b>

The protection ratio of 82.50% can be derived from:

$$\text{Average } (90\% \times \$500,000 / \$600,000, 90\% \times \$10,000^a / \$10,000)$$

<sup>a</sup> Since the total surrender value does not exceed the PPF cap, this would be 90% of the total sum assured.



Mr Lee's policies exceeded PPF benefit caps for the sum assured. The average coverage, taking into account the effect of the cap on the sum assured, is applied across all policies. As a result, PPF protects Mr Lee for 82.50% of his policy benefits.

Upon the default of the insurer, Mr Lee's policies are covered by PPF up to the following respective amounts:

	Sum Assured	Surrender Value
Policy 1	\$412,500	\$8,250
Policy 2	\$82,500	\$0
<b>Total</b>	<b>\$495,000</b>	<b>\$8,250</b>

**Scenario (c): Total sum assured does not exceed caps, whilst total surrender value does**

Mr Lim owns 4 policies from ABC Insurer, which defaults. Details of his policies are as follows:

	Sum Assured	Surrender Value
Policy 1	\$50,000	\$40,000
Policy 2	\$100,000	\$42,500
Policy 3	\$80,000	\$30,000
Policy 4	\$120,000	\$0
<b>Total</b>	<b>\$350,000</b>	<b>\$112,500</b>
PPF Benefit Caps	\$500,000	\$100,000
<b>PPF Protects 90% of Benefits, Adjusted for Benefit Caps</b>	<b>85% x \$350,000 = \$297,500</b>	<b>85% x \$112,500 = \$95,625</b>

The protection ratio of 85% can be derived from:

$$\text{Average } (90\% \times \$350,000^b / \$350,000, 90\% \times \$100,000 / \$112,500)$$

Mr Lim's policies exceeded PPF benefit caps for the surrender value. The average coverage, taking into account the effect of the cap on the surrender value, is applied across all policies. As a result, PPF protects Mr Lim for 85% of his policy benefits.

Upon the default of the insurer, Mr Lim's policies are covered by PPF up to the following respective amounts:

	Sum Assured	Surrender Value
Policy 1	\$42,500	\$34,000
Policy 2	\$85,000	\$36,125
Policy 3	\$68,000	\$25,500
Policy 4	\$102,000	\$0
<b>Total</b>	<b>\$297,500</b>	<b>\$95,625</b>

<sup>b</sup> Since the total sum assured does not exceed the PPF cap, this would be 90% of the total sum assured.

**Scenario (d): Both total sum assured and surrender value exceed caps**

Miss Wong owns 3 policies from ABC Insurer, which defaults. Details of her policies are as follows:

	<b>Sum Assured</b>	<b>Surrender Value</b>
Policy 1	\$500,000	\$100,000
Policy 2	\$100,000	\$50,000
Policy 3	\$150,000	\$50,000
<b>Total</b>	<b>\$750,000</b>	<b>\$200,000</b>
PPF Benefit Caps	\$500,000	\$100,000
<b>PPF Protects 90% of Benefits, Adjusted for Benefit Caps</b>	<b>52.5% x \$750,000 = \$393,750</b>	<b>52.5% x \$200,000 = \$105,000</b>

The protection ratio of 52.5% can be derived from:

$$\text{Average } (90\% \times \$500,000 / \$750,000, 90\% \times \$100,000 / \$200,000)$$

Miss Wong's policies exceeded PPF benefit caps for both the sum assured and surrender value. The average coverage, taking into account the effect of the caps for both sum assured and surrender value, is applied across all policies. As a result, PPF protects Miss Wong for 52.5% of her policy benefits.

Upon the default of the insurer, Miss Wong's policies are covered by PPF up to the following respective amounts:

	<b>Sum Assured</b>	<b>Surrender Value</b>
Policy 1	\$262,500	\$52,500
Policy 2	\$52,500	\$26,250
Policy 3	\$78,750	\$26,250
<b>Total</b>	<b>\$393,750</b>	<b>\$105,000</b>