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Please cite this paper as:

OECD (2013), “Policyholder Protection Schemes: Selected Considerations”, *OECD Working Papers on Finance, Insurance and Private Pensions*, No. 31, OECD Publishing.
http://dx.doi.org/10.1787/5k46l8sz94g0-en

OECD Working Papers on Finance, Insurance and Private Pensions No. 31

# Policyholder Protection Schemes

## SELECTED CONSIDERATIONS

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JEL Classification: D02, F36, F42, G22, G28, H12

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## ABSTRACT/RÉSUMÉ


### POLICYHOLDER PROTECTION SCHEME: SELECTED CONSIDERATIONS

This paper investigates policyholder protection schemes in OECD member countries and selected non-OECD countries. It is selective in its scope: it examines the rationale for a policyholder protection scheme; the relationship between certain design features and moral hazard; the role of a policyholder protection scheme within the overall resolution framework; and some cross-border features of these schemes. While the paper focuses on protection schemes for policyholders, it seeks to draw lessons from compensation schemes in the banking and occupational pension fund sectors, while recognising sectoral differences.



*JEL codes: D02, F36, F42, G22, G28, H12*

*Keywords: insurance sector, insurer insolvency, policyholder protection, insurance guarantee, moral hazard, resolution, cross-border resolution*



### RÉFLEXIONS CHOISIES SUR LES RÉGIMES DE PROTECTION DES ASSURÉS

Ce rapport étudie les régimes de protection des titulaires de polices d'assurance dans les pays Membres de l'OCDE et dans certains pays non Membres. Son champ d'étude est sélectif : il porte sur les raisons présidant à l'existence de ces régimes ; les relations entre certaines dispositions et l'aléa moral ; le rôle du régime de protection des assurés au sein du cadre globale de résolution des défaillances ; et certains aspects de ces régimes relatifs aux défaillances concernant plusieurs États. Tout en ciblant sa réflexion sur les régimes de protection des assurés, ce rapport tente de tirer des enseignements des mécanismes d'indemnisation existant dans le secteur bancaire et les plans de retraite professionnels, tout en mettant au jour les différences sectorielles.



*Codes JEL : D02, F36, F42, G22, G28, H12*

*Mots clés : assurances ; insolvabilité des entreprises d'assurance ; protection des titulaires de police d'assurance ; garantie d'assurance ; aléa moral ; résolution ; résolution de défaillances concernant plusieurs États*

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**List of abbreviations**

| | |
|---|---|
| CAD | Canadian dollar |
| CCS | Consorcio de Compensación de Seguros (Spain) |
| CLCIO | Codes of Liberalisation of Current Invisible Operations |
| DGSD | Deposit Guarantee Schemes Directive (EU) |
| EEA | European Economic Area |
| EU | European Union |
| FSB | Financial Stability Board |
| FSB-HKSAR | Financial Services Branch of the Financial Services and the Treasury Bureau of the Government of the Hong Kong Special Administrative Region |
| IAIS | International Association of Insurance Supervisors |
| MTPL | Motor third-party liability |
| NAIC | National Association of Insurance Commissioners (US) |
| NOK | Norwegian kroner |
| NOLHGA | National Organization of Life and Health Insurance Guaranty Associations (US) |
| OTC | Over-the-counter |
| PACICC | Property & Casualty Insurance Compensation Corporation (Canada) |
| TPL | Third-party liability |
| USD | US dollar |

## EXECUTIVE SUMMARY


The fundamental objective of a policyholder protection scheme is to guarantee, partially or in full, payments made pursuant to insurance contracts in the event that an insurer fails or its license is revoked.[a] In so doing, a policyholder protection scheme provides important financial security to policyholders, particularly those who are economically vulnerable and for insurance lines or products containing an element of social protection. The financial crisis has highlighted, in some countries, the role of financial sector compensation schemes in protecting consumers, enhancing the resolution framework, and promoting confidence and stability in the financial system.

This paper investigates policyholder protection schemes in OECD member countries and selected non-OECD countries. It is selective in its scope: it examines the rationale for a policyholder protection scheme; the relationship between certain design features and moral hazard; the role of a policyholder protection scheme within the overall resolution framework; and some cross-border features of these schemes. While the paper focuses on protection schemes for policyholders, it seeks to draw lessons from compensation schemes in the banking and occupational pension fund sectors, while recognising sectoral differences.

While sound regulation is important for promoting the stability of financial institutions, these institutions will, from time to time, fail in a market-based economy. Accordingly, there is a strong interest in ensuring appropriate and timely protection for customers. Financial sector compensation schemes help to provide certainty regarding the amount and timing of compensation of customers in the event of a financial institution failure, contribute to a clear and credible framework for failure resolution, and involve the industry in funding payouts, thus making it have a stake in the behaviour of financial institutions and the quality and implementation of financial regulation, all of which can promote consumer protection and financial stability.

In the context of insurance, insurance contracts are linked to the everyday lives of consumers, providing security against risk events. If this purchased protection suddenly becomes less certain as a result of an insurer insolvency, there may be important consequences for policyholders. For instance, insurance contracts containing a savings element may involve large invested sums; other types of insurance contracts may contain a significant element of social protection (*e.g*., health insurance, workers' compensation); and, finally, some contracts protect against large potential loss (*e.g*., fire, motor third-party liability).

The particularities and complexities of the insurance sector should be taken into account when discussing the rationale, functions, and features of policyholder protection schemes, including the scope and speed of any compensation, funding arrangements, and role of the scheme within the resolution framework. Differences among insurance products, including the expected time horizon for the payout of claims, need to be recognised, as well as differences (and possible similarities in some cases) between the insurance and banking sectors. Furthermore, possible special policyholder protection measures within the regulatory regime (*e.g.,* tied assets) and insolvency framework *(e.g.,* policyholder priority) governing insurers may affect the level of assurance regarding payouts. This complexity has meant that there is considerable variation in country assessments of the need for, and approaches toward, policyholder protection schemes.

In spite of these divergences, this paper arrives at some general conclusions:

1. Policyholder protection schemes can provide an essential level of protection for policyholders when an insurer fails;
2. Unlimited coverage of policies by a policyholder protection scheme, while providing full protection for consumers, is not conducive to limiting the potential moral hazard effects of such schemes, and should be reconsidered;
3. The need for, and appropriate level of, co-insurance merit discussion;
4. A greater focus on product features would enable a more nuanced approach to the protection of insurance policies. Protection could be tailored according to the features and risks of the insurance product, including any social element. This should include taking into account products with similar features in other sectors, with a view to providing similar levels of protection in order to promote consistency in consumer treatment and reduce competitive distortions;
5. Sustainable funding arrangements should be discussed, with the possibility of distinct and/or combined funding methods of *ex ante* and *ex post* funding, depending on the insurance product (generally, life or non-life) and taking into account possible pro-cyclical impacts;
6. There should be greater consideration of the possible functions that policyholder protection schemes can play within the resolution framework for insurers in addition to their basic paybox function, such as assisting in the transfer of insurance portfolios, and the provision of financial assistance (including possible guarantees) to insurers taking over insolvent insurers;
7. There remains uncertainty regarding cross-border insolvencies, such that the way in which policyholder protection schemes treat cross-border contracts requires greater investigation; and,
8. There is a lack of information on the governance arrangements and operational features of policyholder protection schemes in many countries. Greater disclosure on the operations of the schemes would provide better insight on their operational parameters, including governance and funding methods.

a. While the focus of this paper is on policyholder protection schemes, some countries have alternative mechanisms, such as tied assets, that share the same objective of protecting policyholders in an insolvency context.

## POLICYHOLDER PROTECTION SCHEMES:
## SELECTED CONSIDERATIONS

### I. Introduction

The Insurance and Private Pensions Committee agreed to examine policyholder protection schemes on a cross-sectoral, comparative basis, as part of a broader work programme on effective and efficient financial regulation. In accordance with this mandate, this paper explores some of the main features of compensation schemes, with a particular focus on the insurance sector but with reference to the banking and private pension sectors.[1]

This paper updates work carried out previously by the Committee on policyholder protection schemes (Yasui, 2001) and incorporates some comparative analysis with banks and private pension funds. The OECD has already carried out work on deposit insurance (Schich, 2008) and occupational pension protection funds (Stewart, 2007).

In 2010, the European Commission issued a White Paper on Insurance Guarantee Schemes as part of a proposal to establish a directive on insurance guarantee schemes (European Commission, 2010).[2] In June 2011, the International Association of Insurance Supervisors (IAIS) published an *Issues Paper on the Resolution of Cross-border Insurance Legal Entities and Groups* that discusses issues relating to the cross-border insolvency of insurers, including the role of policyholder protection schemes and their implication for supervisors.

This paper on policyholder protection schemes complements such efforts by looking at a wider pool of countries, analysing specific aspects where interest has been expressed by the Committee, and providing a comparative perspective.[3] It also compliments recent OECD work on guarantee schemes for financial claims, such as deposit insurance and credit guarantee schemes (Schich and Kim, 2011).

This paper will analyse selected topics in the area of policyholder protection schemes: the rationale for a scheme; funding and levies; product coverage and membership; coordination with other resolution mechanisms; and cross-border aspects. The analysis will be extended to deposit insurance and occupational pension protection schemes[4] to deepen the analysis, enabling a better understanding of common, horizontal issues and fostering a more consistent policy response. The objective of this paper is to assess the merits of establishing policyholder protection schemes in the insurance sector, and consider appropriate design features for such schemes. Moral hazard and cross-border aspects will be discussed in this context.

Although there are differences between the banking and insurance sectors, deposit insurance schemes provide useful information for this discussion as they are established in most OECD member countries and have been widely discussed. During the past financial crisis, the role and function of deposit insurance gave rise to much policy discussion, with the OECD's Committee on Financial Markets discussing the topic in depth.

This paper is intended to address issues relating to policyholder protection schemes whose aim is to provide compensation to policyholders in the event of an insurer insolvency/failure and/or

revocation of licence, thus guaranteeing, in part or in full, due payment of benefits or covered claims.[5] The guarantee is made effective either by means of an industry or government pool, or a transfer of policy liabilities. Such schemes should not be confused with the compensation made by an insurer in response to the realisation of a risk event towards a claim.[6] Nor do they correspond to the technical provisions or own capital that insurers establish to ensure their ability to meet insurance claims and maintain their solvency.

Besides their main function as a "paybox",[7] some compensation schemes in the financial sector may have additional functions related to the resolution framework. Such resolution functions may include the power to declare a financial institution insolvent, and subject to appropriate resolution procedures, the ability to facilitate portfolio transfers, the power to initiate legal action against former management, and the power to impose a stay on the assets of the failed institution. Unlike schemes for occupational pensions, both the banking and insurance sectors' compensation schemes have a range of intervention powers.

## II. Policyholder protection schemes: rationale and features

A policyholder protection scheme guarantees, at specified levels or in full, payments made pursuant to insurance contracts in the event that an insurer fails or its license is revoked. The establishment of a policyholder protection scheme reflects a judgement to provide guaranteed levels of protection for policyholders in the event of an insurer insolvency and spread the costs of such guarantees through the insurance system (in most instances, to the insurance industry). While the assets of a failed insurer are expected to provide the basis for enabling full payment up to guaranteed levels, any deficiency in assets requires recoupment from those backing the scheme (*i.e.*, the industry) to ensure the guaranteed payments.

The first and foremost means of consumer protection in the financial system is to have a sound legal and regulatory framework, particularly sound prudential regulation. The establishment of a prudential framework that addresses the risks of financial institutions, whether insurance, banking or securities, is essential to help secure the protection of customer funds and claims, along with well-regulated financial markets. Furthermore, it is important to have sound and well-run financial institutions, which will reduce the likelihood of failure and minimise the risk of loss to customers in the event of any insolvency.

However, in some circumstances, financial institutions, including insurers, can fail, leaving customers (policyholders and beneficiaries in the context of insurance contracts) vulnerable to economic loss and possible social hardship given the uncertain outcome of insolvency proceedings. In the insurance sector, policyholder protection schemes can provide an important level of protection and certainty regarding financial compensation for policyholders exposed to the insolvency of their insurer.

The most basic function of a policyholder protection scheme is to guarantee insurance contracts fully or partially, up to a certain amount or percentage, when the underwriting insurer fails or its license is revoked. The provision of compensation to ensure coverage of insurance claims up to the guaranteed amount(s) constitutes the paybox function of a policyholder protection scheme, and can be complemented by other scheme functions, such as the transfer of liabilities to another insurer.[8]

Policyholder protection schemes do not exist in all OECD member countries and, in many cases, where they do exist, the lines covered are limited (Table 1). Twenty six countries have a scheme that covers all or part of the insurance sector. This is nearly two third of member countries, but in effect is lower due to the lack of comprehensive schemes. Those that do have a comprehensive coverage for the entire insurance sector are few in number and can be divided into sector-wide schemes (Korea,

Spain, United Kingdom) and effective sectoral coverage by means of multiple schemes (Canada, France, Japan, United States[9]). In some countries, the scheme covers just non-life policies (Australia, Denmark, Norway) or just life policies (Austria, Germany, Greece). Outside of the OECD, a number of countries are adopting policyholder protection schemes. For instance, Hong Kong intends to establish a policyholder protection scheme, with sectoral coverage through two schemes (including coverage of small and medium sized enterprises) in 2012 or 2013 (FSB-HKSAR, 2012).

Many countries have schemes which cover only a specific line of non-life insurance.[10] Motor third-party liability (MTPL)[11] and motor guarantee funds are the most widely protected line-specific scheme (Austria, Belgium, Czech, Germany, Denmark, Estonia, Finland, France, Greece, Hungary, Israel, Italy, Luxembourg, Netherlands, Poland, Portugal, Slovakia, Spain, Switzerland, Turkey) given the large, potentially catastrophic, exposure for policyholders in the event of an insurer insolvency,[12] while work accident schemes are also present (Belgium, Finland, Portugal). Other specific schemes provide compensation for annuities (Estonia, only for the mandatory second pillar of the pension system), mandatory patient insurance (Finland), private health (Germany), hunting (Italy) and third party liability (TPL) (Australia, Poland, Turkey).

As with many deposit insurance schemes within the OECD, protection is usually not extended to corporate policyholders, who are expected to have the information available to make an informed judgement, are less economically vulnerable, and have a greater capacity to manage their risks.[13]

**Table 1: Existing compensation mechanisms**

For **policyholder protection mechanisms**, ● marks a scheme with explicit guaranteed coverage, and ○ marks a mechanism where the amount of coverage depends on final recoveries from the insolvent insurer.

For **deposit insurance**, ● marks an explicit scheme, and ◊ marks a non-explicit scheme.

For **occupational pension protection schemes**, ● marks an explicit scheme, and □ marks schemes which are only available in a certain state.

| | *INSURANCE SCHEMES* | | | | *BANKING* | *OCCUPATIONAL PENSION* |
|---|---|---|---|---|---|---|
| | *General schemes (life and non-life)* | *General schemes covering life* | *General schemes covering non-life* | *Special scheme (selected non-life)* | | |
| **Australia** | | | ● | ● | ● | |
| **Austria**[a.] | | ○ | | ● | ● | |
| **Belgium** | | | | ● | ● | |
| **Canada** | | ● | ● | | ● | □[b.] |
| **Chile** | | | | | ● | |
| **Czech Republic** | | | | ● | ● | |
| **Denmark** | | | ● | ● | ● | |
| **Estonia** | | | | ● | ● | |
| **Finland** | | | | ● | ● | |
| **France** | | ● | ● | ● | ● | |
| **Germany** | | ● | | ● | ● | ● |
| **Greece** | | ● | | ● | ● | |
| **Hungary** | | | | ● | ● | |
| **Iceland** | | | | | ● | |
| **Ireland** | | | | | ● | |
| **Israel** | | | | ● | ◊ | |
| **Italy** | | | | ● | ● | |
| **Japan** | | ○[d] | ● | | ● | ● |
| **Korea** | ● | | | | ● | |
| **Luxembourg** | | | | ● | ● | |
| **Mexico** | | | | | ● | |
| **Netherlands** | | | | ● | ● | |
| **New Zealand** | | | | | ● | |
| **Norway** | | | ● | | ● | |
| **Poland** | | ● | | ● | ● | |
| **Portugal** | | | | ● | ● | |
| **Slovak Republic** | | | | ● | ● | |
| **Slovenia** | | | | | ● | |
| **Spain**[c.] | ○ | | | | ● | |
| **Sweden** | | | | | ● | ● |
| **Switzerland**[e.] | | ○ | ○ | ● | ● | ● |
| **Turkey** | | | | ● | ● | |
| **United Kingdom** | ● | | | | ● | ● |
| **United States**[f.g.] | | ● | ● | ●[f.] | ● | ● |
| **Russian Federation** | | | | | ● | |
| **Indonesia** | | | | | ● | |
| **China** | | | | | ◊ | |
| **Brazil** | | | | | ● | |
| **South Africa** | | | | | ◊ | |

**Sources**: OECD Secretariat, EU (2007), International Association of Deposit Insurers, and Stewart (2007).

**Notes:** (a) Austria has a mechanism that helps to protect policyholders whereby life insurance policies and specific health and accident insurance policies are protected through earmarked assets; however, no specific guarantees are provided. (b) In Canada, the scheme for occupational pension protection exists only in Ontario. (c) In Spain, there is no guaranteed coverage level, with the final payout dependent on the financial situation of the insolvent insurer and the "improvement measures" that are applied. (d) Japan's life insurance protection scheme protects up to 90% of the applicable technical reserves. (e) Switzerland has a scheme whereby direct life and non-life insurance policies are protected through earmarked assets; no specific guarantees are provided. (f) In the United States, given that each state has a compensation scheme for life and property/casualty, the data used is based on information of the National Conference of Insurance Guaranty Funds and the National Organization of Life and Health Insurance Guaranty Associations. (g) Some states, such as New York, Pennsylvania, and New Jersey, have independent schemes for workers' compensation.

***A. To have or not to have…***

There are many countries with some form of a policyholder protection scheme, although coverage is often limited and, in many cases, restricted to a particular line of insurance. What is noticeable is that the countries which have comprehensive coverage of the insurance sector often tend to be those with larger financial systems or have experienced a severe financial crisis, which may not have necessarily stemmed from the insurance sector. The number and severity of insolvencies in the insurance sector, as well as their expected likelihood, will often influence the decision to establish a policyholder protection scheme.

The establishment of a policyholder protection scheme reflects a judgement to spread the cost of an insurer insolvency through the insurance system (in most instances, to the insurance industry) rather than the cost being borne by the taxpayer or specific policyholders and claimants (Cummins, 1988). The extent to which this cost is actually shifted to the insurance industry as opposed to being retained by policyholders in particular is determined by the features and arrangements of a policyholder scheme, particularly coverage limits and the level of co-insurance.

The European Commission has issued a White Paper which proposes the establishment of an insurance guarantee scheme in each member state (European Commission, 2010). If a directive on insurance guarantee schemes is implemented in the EU, it is likely to change the landscape of policyholder protection schemes, with such schemes becoming more universally adopted.

*a) To have a policyholder protection scheme…*

The main rationale for the establishment of a policyholder protection scheme is to provide a ***level of protection*** against the effects of an insurer insolvency, which will occur from time to time and may leave policyholders exposed to loss, an outcome that may potentially be severe depending on the nature of the insolvency and the circumstances of the policyholder and the policies taken out. As mentioned, the creation of a policyholder protection scheme is often prompted by the failure(s) of insurers and recognition of the need for adequate consumer protection in such situations. This was recently the case for Greece which established a policyholder protection scheme for its life sector as a result of the failure of a major life insurer. Such incidents suggest the limitations of supervisory efforts and the prudential regime to prevent insolvencies, and the need for more secure safety net arrangements to address future possible insurer difficulties.

The appropriate degree of protection will depend on the circumstances of policyholders, the social and economic role of private insurance in the lives of people in a given country, and the potential size of exposure arising from an insolvency. Policyholders who, due to their levels of wealth or income, are economically disadvantaged or vulnerable will be most affected by any loss of funds or non-payment of claims resulting from an insurer insolvency. While such segments of the population are less likely to purchase insurance in the first place, it nonetheless remains the case in many countries that a number of insurance lines are mandatory in nature (*e.g.*, motor insurance for owners of vehicles, fire insurance for those with mortgaged property), meaning that policyholders in such population segments who have taken out insurance policies in mandatory lines could be negatively impacted by an insurer insolvency; moreover the social and/or economic objective of mandatory coverage may be undermined.

Further, where insurance lines have specific features, particularly a strong social and/or savings element, there may be a significant expectation of protection, with the result that at least a few lines of insurance may be covered by a policyholder protection scheme in a given country. For life insurance, which usually has a longer time horizon, the failure of an insurer may change or terminate an

insurance policy, leaving the policyholder unable to negotiate a similar policy due to his/her changed age and health. In some countries, there is a link between the protected line and the wider social security network. For instance, in Estonia, policyholder protection schemes are considered essential where the insurance contract might have a social consequence, such as mandatory pension annuities.

If insurance is seen as assuming some of the roles of social security, strong protection, obtained by means of a policyholder protection scheme, may be necessary to ensure that the system is placed on a sound and stable footing. Certain product features may thus require greater or less protection depending on the extent to which these features (*e.g*., savings element) are linked to the social security system, including the broader social framework for long-term savings and retirement. Other product features may be relevant for protection under a policyholder protection scheme.[14] One could therefore expect that certain lines of insurance may receive priority attention in the establishment of a policyholder protection scheme and that, within these schemes, there may be a divergence in coverage among products, depending on their features.

Finally, the potentially large exposure facing a policyholder, should an insured event and insurer solvency occur at the same time, may be an important consideration motivating the provision of protection for certain lines of insurance. For a number of insurance lines (including certain social and savings lines such as health insurance and pension annuities and property insurance), the potential exposure to loss could be significant (*e.g.,* loss of property or fire insurance coverage, in the event of a natural disaster or fire), if not catastrophic (*e.g.,* loss of third party liability coverage, in the event of a motor crash and a large third-party lawsuit), leading to economic hardship for many affected policyholders, if not ruin. While recoveries from the estate of the failed insurer may reduce the final loss for policyholders, the possible delay in obtaining access to owed funds due to legal procedures may in itself pose substantial problems, with similar harmful effects.

The extent to which consumers might, in the absence of a policyholder protection scheme, be exposed to losses in an insolvency context is a key consideration. Insofar as an insurer's prior solvency position limited its downward fall, the net deficit position of an insurer in an insolvency context (*i.e*., excess of liabilities over assets) may be limited, enabling a higher than expected recovery rate for policyholders. Furthermore, the insolvency framework may provide further protection for policyholders, limiting their exposure to loss. Specifically, if the insolvency framework gives policyholders a priority ranking as creditor of an insolvent insurer, this priority status may mean that the estate may be sufficient to pay policyholders; however, full recovery of policyholder claims is not necessarily ensured, thus exposing policyholders to potential loss and a possibly long recovery process. However, for jurisdictions that do not grant a special priority ranking to policyholders, estate assets must be shared with other ordinary creditors, increasing significantly the likelihood that there will be insufficient assets to meet policyholder claims.

Some OECD member countries have alternative systems of protection for policyholders, which provide a level of assurance to policyholders, although they are not deemed to be a policyholder protection scheme within the meaning of this paper.

The Austrian system has a resolution mechanism with a *sui generis* approach. The Austrian system requires that technical reserves for the protected policy be listed and maintained in the form of earmarked assets by the insurer for the scheme. The assets are monitored by a designated trustee to ensure that the dedicated assets are indeed present and sufficient. Transactions involving earmarked assets can only be made with the approval of the trustee. When an insurer becomes insolvent, these earmarked assets will constitute a special fund in the bankruptcy procedure for the benefit of policyholders.

Switzerland has a largely similar system with assets dedicated to covering liabilities. Insurers are required to build up individual guarantee funds whose assets are earmarked so that when the insurer fails, policyholders have first priority over the tied assets. Tied assets are usually restricted to certain asset classes, with limitations on concentration and counterparty risks.

In Spain, the Consorcio de Compensación de Seguros (CCS), attached to the Ministry of Economy, acts as the liquidator of the insolvency insurer, as well as carries out the payout of insurance policies. Policyholders have a special insurance claim on the assets of the failed insurance company corresponding to technical provisions. In addition, Spain can adopt measures that grant seniority to policyholders in the insolvency procedure with respect to any other assets of the failed insurer by taking so-called "special control measure" (blocking of assets).

These schemes, which may not be policyholder protection schemes within the meaning of this paper, help to ensure that consumers are appropriately protected in the event of an insolvency. However, in the case of Austria, Japan (life) and Switzerland, should tied or earmarked assets, or technical reserves, be impaired in light of severe and unexpected adverse market situations, or insufficient due to the stage of the policy in its lifecycle (*e.g.*, in the accumulation stage of a fixed deferred annuity when funds would not have yet been adequately accumulated), there is a risk that, even where requirements regarding diversification and risk mitigation are in place, there may be insufficient funds to compensate policyholders. Similarly, in Spain, the net deficit position of an insurer in an insolvency context may be sufficiently sizeable (including in respect of the assets covering the technical provisions) so as to preclude full recovery of funds to meet outstanding liabilities to policyholders.

In jurisdictions without special provisions in the insolvency regime for policyholders, a compensation scheme could ensure that policyholders receive adequate compensation in an insurer insolvency. Where policyholder priority provisions exist in the context of an insurer insolvency, they will significantly reduce the costs of a policyholder protection scheme and may reduce funding pressures.

Even where the exposure of policyholders to loss is minimised, the needs of policyholders in respect of their policies and ***the speed at which payments can be made*** (*e.g.*, claims payments, redemption of funds) in the context of an insolvency provide a basis for establishing a policyholder protection scheme. If insolvency procedures do not permit payments to be made to policyholders quickly, households may be adversely impacted, depending on the insurance policies held. Such policies would include life insurance policies that include funeral costs, motor insurance for repairs to be carried out, or marriage/birth insurance.

Overall, compensation schemes like policyholder protection schemes form an important part of the consumer protection regime in the financial sector. Indeed, insofar as the impact of any insurer failure reaches beyond immediately affected policyholders and negatively affects consumer confidence in the insurance sector -- contrary to the situation for private pension systems where impacts might be expected to be more localised – then the consumer protection argument is further reinforced, and linked to the broader objective of stability and confidence in the insurance sector.

***Minimising potential taxpayer exposure to insolvencies*** and ***involving the industry in failure resolution*** provide additional rationales for the establishment of a policyholder protection scheme. Policyholder protection schemes can be expected, depending on their design, to shield the government, and thus taxpayers, from contingent liabilities related to insurer insolvencies, ensuring that losses linked to such insolvencies are absorbed by the insurance industry itself and, to the extent related costs are passed on, to all policyholders. The absorption of some of the costs of insurer insolvencies gives

the industry a direct financial stake in the behaviour of insurers, the quality of the regulatory and supervisory framework governing insurers, and the resolution framework, which could lead to improvements in industry monitoring, insurance regulation and supervision, and the effectiveness of failure resolution.

Finally, ***level playing field considerations*** may motivate the establishment of a policyholder protection scheme. Policyholder protection schemes may be established in order to ensure that insurance products are perceived to have the same advantages and protections as other competing financial -- but non-insurance – products that are covered by a compensation scheme (*e.g*., deposit insurance, investment protection funds).

*b) To not have a policyholder protection scheme…*

Some argue that the ***regulatory and supervisory framework for insurers***, combined with the ***low frequency of insurer insolvencies*** (and more so for large insurers) make a policyholder protection scheme redundant. Insurers establish technical provisions to recognise policy liabilities and are subject to strict solvency regulations, which are intended to ensure the payment of claims to policyholders.[15] Given the longer term nature of many insurance contracts, the costs of liquidation of complex undertakings such as insurers, and the problems posed in some lines by the disruption of contracts, it may be considered preferable to provide for the continuity of contracts by means of a merger or transfer of claims to other insurers, whether on a voluntary basis or under the direction of a governmental authority. Such *ad hoc* measures are, often, the most frequently employed method when insurers encounter difficulties, and hence may help to explain the low number of reported insurer insolvencies and the lack of widespread adoption of policyholder protection schemes.

Furthermore, as indicated above, some jurisdictions provide relatively ***strong protection to policyholders in the liquidation procedure of insurers***, giving policyholders a higher priority on the assets of the failed institution. Countries like Germany, Italy, and Spain grant policyholders a special claim on the assets of the failed insurance company corresponding to the technical provisions over any claims lodged against the insurance company.[16] Other countries, including Canada, Estonia, France, Norway, and the UK grant policyholders a general claim to all the assets of the company over any other claims other than those that are given a higher priority by bankruptcy provisions of the national law concerned (typically employees' claims and tax liabilities). These legal protections may be perceived as providing adequate protection to policyholders.

The ***potential costs*** of establishing a policyholder protection scheme may be another deterrent to the establishment of a policyholder protection scheme. The costs borne by the industry will largely depend on the structure of the scheme (*e.g.,* coverage limits, level of co-insurance, and/or funding approach) and the extent (if any) of any potential moral hazard effects which, if observed, would be expected to increase the frequency and/or severity of insurer insolvencies (Grace, Klein and Phillips, 2003).[17] Scheme administration might impose costs particularly for schemes with *ex ante* funding arrangements in light of the possible need for a permanent institution with accompanying governance arrangements and asset management functions.

In addition, a small and concentrated insurance market where the failure of one insurer would have a large impact, a ***policyholder protection scheme may prove inadequate in covering policyholder claims***, putting remaining industry players under considerable financial strain to cover the costs of the scheme. In this context, a structural approach (*e.g.,* portfolio transfers) may be more appropriate and efficient means to protect policyholders and wind down the failed insurer.

### *B. Contagion in the insurance sector*

An important function of a compensation scheme is to instill confidence in the industry, and thereby prevent any possible contagion. When consumers are safe in the knowledge that most of their assets will be protected by a compensation scheme, they will not be prompted to run on a financial institution should there be any indication of trouble, or otherwise lose confidence in the financial institution. Contagion occurs when this loss of confidence spreads to other financial institutions, sparking other runs or leading to a generalised worsening of confidence in financial institutions.

A "run" by policyholders may occur when an insurer sells products that are "banking" in nature (*i.e*., containing a savings element and redeemable on demand), as was the case of Ethias in Belgium. However, policyholder "runs" may be limited in the insurance sector by the generally longer term time horizon of life insurance policies and the fact that there are penalties if the insurance contract is cancelled, both of which may reduce liquidity pressures (Geneva Association, 2010);[18] for instance, payouts for traditional life insurance policies, if they are taken to maturity, will span over a long period of time, and are not necessarily obtainable on demand as deposits. In the non-life sector, and in particular property and casualty lines, claims need to be met only insofar as an insured risk occurs (*i.e.,* not on policyholder demand), precluding the existence of any "runs"; however, a highly correlated event such as large natural catastrophe could, although infrequent, have an equivalent impact in terms of claims overwhelming a non-life insurer (though with some time lag given the adjustment process) and introducing liquidity pressures. Thus, the need for short-term liquidity is generally more limited for insurers in comparison with banking institutions where liquidity needs may be high.

The life sector might be susceptible to contagion effects. The bankruptcy of a given life insurer could cast doubt on the soundness of other life insurers and may, in the absence of a policyholder protection scheme, induce a gradual yet sustained "run" on these insurers, particularly those that are perceived to be vulnerable, to the extent that exit costs in the form of penalties or forms of restrictions are limited. To the extent that there are any such general contagion effects within the insurance industry, policyholder protection funds may not only protect policyholders against direct financial loss incurred by the insolvency of an insurer, but may also maintain public confidence in the industry, reduce any contagion effects, and thereby contribute to the stability and competiveness of the insurance industry.

The conglomeration of financial institutions might also give rise to intra-group contagion. If there is a bank or other financial institution within the group with substantial losses that may have an impact on the financial soundness of the insurer or its reputation, the insurer may experience contagion in the form of policy cancellations (IAIS, 2010).[19]

**Box 1. Lessons from banking and occupational pension sector: existential considerations**

Deposit insurance has become a standard feature of a modern financial system although the features may vary.[20]

Some European countries do not have a single deposit insurance scheme, but have separate schemes for different types of banks (Austria, Germany, Italy, Spain). Some deposit insurance schemes not only cover the banking sector, but also other sectors as well (all sectors: Estonia, Korea, United Kingdom; with insurance: Australia; with securities: Belgium, Denmark, Greece, Iceland, Netherlands, Switzerland). It appears that there may a wider network of investor protection schemes for the securities sector than for the insurance sector, given that a number of countries combine their investor protection scheme with their deposit insurance scheme.

Occupational pension protection schemes exist in seven member countries (Canada (Ontario only),

Germany, Japan, Sweden, Switzerland, United Kingdom, United States). The protection is for occupational, defined benefit schemes. However, occupational pension funds are not subject to contagion in the same manner as insurers or banks (further discussed in Box 2).

For insurance, there is far from comprehensive coverage of the sector, although the level of protection may be higher where it is protected. The diversity in insurance products is greater than deposits, and this may be why only specific lines are given protection. Comprehensive coverage for the insurance system, as compared with deposit insurance, is less likely. The prudent management of technical reserves and limited experience of spillovers and "runs" in the insurance sector makes the rationale for establishing a policyholder protection scheme less strong than for a deposit insurance scheme. However, the risk of an uncertain and potentially damaging outcome for policyholders in the event of an insurer insolvency provides an argument in favour of the establishment of a policyholder protection scheme on consumer protection grounds.

The policy discussion on whether to establish a compensation scheme or not will ultimately depend on the objectives of the financial safety net and consumer protection, as well as cost implications. The fundamental objective of a deposit insurance scheme is to instill confidence in the banking system, while a policyholder protection scheme is focused on providing consumer protection. Occupational pension protection are a beneficiary protection mechanism for deferred current wages. The primary objective of a compensation scheme will and should be reflected in the structure of a scheme.

The coverage of compensation schemes depend on factors such as the level of perceived systemic risk, whether it is part of the social security network, the desirable level of consumer protection, and penetration level of the product. Deposit insurance is often universal for all retail deposits albeit with a maximum coverage level due to the systemic risk of the banking sector. The level of policyholder protection will depend on the above and other considerations such as whether a product is compulsory, whether there is a saving element and/or whether the potential losses might be catastrophic.

### *C. Membership*

Policyholder protection schemes in most OECD member countries require the participation of insurers whose lines are protected. Compulsory membership ensures consistency of treatment/protection of all insurers and consumers, and the prevention of adverse selection that would occur when protection is not uniform among all insurers. The only exception is Spain, which does not require participation of the industry in the policyholder protection scheme. All non-life insurance policyholders are charged a premium for the funding of the overall scheme, which applies to both life and non-life policies.[21]

With an optional compensation scheme, protection is offered by financial institutions that are members of the scheme, with the financial burden shared within a smaller pool of financial institutions, but which could be expected to benefit from the coverage given the potentially enhanced appeal of their products. However, the compensation scheme would not benefit from economies of scale, given the smaller pool of institutions. Moreover, such a pool could suffer from adverse selection, with only weak institutions seeking membership in the policyholder protection scheme as a means to maintain their competitive position.

## III. Measures to limit moral hazard

### *A. Moral hazard*

Moral hazard may be endemic to compensation schemes in insurance, or any other risk-sharing mechanism where there is asymmetric information. Even without the safety net provided by a policyholder protection scheme, there could be moral hazard behaviour in insurance; in the absence of policy terms imposing deductibles or co-insurance, an insurance contract may induce policyholders to take fewer precautions to avoid the specified risk event.

In the presence of policyholder protection schemes, policyholders may decide to ignore factors surrounding the financial condition or reputation of an insurer if this information is provided at point of sale.[22] They may also ignore the risks surrounding the products offered by the insurer (*e.g.,* overly attractive returns), which may create problems for the insurer. They may rely on the supervisory system in the belief that only sound insurers are allowed to market insurance products.

Policyholder protection schemes may also induce some insurers to take on additional risk, in the belief that consumers may not be discriminating in their choice of insurers, and thus decide to offer insurance products with unsustainable underwriting terms. This may put competitive pressure on insurers that are following more sustainable, prudent underwriting practices.

A key issue in terms of the cost and sustainability of a policyholder protection scheme is the extent to which its establishment creates moral hazard or, if it already exists, serves to increase it, and whether measures can be introduced within any such schemes to limit such potential adverse effects.

*a) Consumers*

Consumers may be less inclined to assess the riskiness of an insurer and make a prudent selection, making purchase decisions based solely on attractive (*i.e*., cheaper) premiums or higher returns (for saving products). However, it is unrealistic to expect that consumers, who are generally unsophisticated in relation to insurance risks and face a large asymmetry of information regarding the financial condition of insurers, can exert market discipline, meaning that the marginal impact of a policyholder protection scheme on consumer moral hazard may be limited.

Prior to the crisis, some countries expected consumers to exert market discipline on financial institutions as debtholders. However, the crisis has demonstrated the limitation of this expectation in the face of lack of comprehension and information.[23] Intermediaries may be able to counterbalance possible moral hazard by providing information on the riskiness of insurers and screening insurers themselves.

For some specific property and casualty liability insurance lines, policyholders may have a legal obligation to take out a policy but do not benefit from the payout, which are paid to a third party claimant. Thus, there is an incentive for the policyholder to take out the least expensive policy, which might reside with the riskiest insurer (Cummins, 1988). This would be detrimental to the third party claimant who might experience difficulty collecting the claim if the insurer becomes insolvent.

*b) Insurance companies*

Insurance companies may face pressures conducive to moral hazard. Insurance contracts receive premiums in advance of a possible or expected future payout. Insurance companies will, based on this steady premium income, gradually build up funds, which can be invested in assets. This so-called “inverted production cycle” differs from banks, who receive funds up front from depositors and, in return, provide a steady stream of interest income. Given the complexities of insurance liabilities, and with the payout from insurers lying possibly far into the future and the scope for policyholder redemptions more limited than in the banking sector, it may be difficult for policyholders to monitor insurers and exert control, potentially leading to a misalignment of interests and insurer moral hazard.

In a world of perfect, symmetric information, and effective market discipline, the cost of debt capital (*i.e.*, policyholder liabilities for the most part) would reflect the riskiness of the insurer, and the risk charge would be absorbed by the insurer. With a policyholder protection scheme guaranteeing liabilities, these costs could be shifted (in part or whole, depending on the extent of the guarantee) to

the scheme, effectively providing a subsidy for the riskiest insurers and creating an incentive for insurers to take on more risk.

In the context of asymmetric information, insurance companies have the scope – given imperfect monitoring -- and the incentive -- given their limited liability structure -- to take on risks, given that upside risk can be retained by shareholders while downside risk can be spread to debtholders. Such agency costs are relevant to policyholders, who are the largest liability claimant of an insurer. With the existence of a policyholder protection scheme, this incentive could increase as these costs are shifted, in part or whole, to the scheme, thereby reducing if not eliminating monitoring incentives on the part of protected policyholders.

It would seem, in this context, that the impact of a policyholder protection scheme on moral hazard would depend on the extent to which pre-existing information asymmetries had already induced moral hazard effects; if the degree of information asymmetry is high, and thus monitoring and control capabilities overall low, the incremental impact may not be significant. One could expect that the degree of moral hazard would be influenced by the extent to which there are other, more sophisticated, debtholders capable of monitoring the insurer effectively and thereby exerting market discipline (Gropp and Vesala, 2010).[24]

An investigation into the life insurance sector has shown that there is a robust, inverse relationship between risk and the market to book ratio. Insurers with a higher franchise value (*i.e.,* higher market value to book value ratio) may take less risk because there would be more to lose in an insolvency, suggesting that moral hazard is more limited for high franchise insurers (Brewer, Mondschean and Strahan, 1997). This finding echoes results in the banking sector where higher charter value limits moral hazard in terms of there being less of a misalignment of interests between equity holders and debt holders (Gropp and Vesala, 2011).

Greater risk taking is thought to take place if the premiums charged by the policyholder protection scheme do not reflect the riskiness of the insurer. From this perspective, there is increasing interest in risk-based premiums for compensation schemes, including policyholder protection schemes, in order to ensure that this option is fairly priced.[25]

*c) Financial authorities*

While theoretical in principle, if the financial safety net protects the claims of consumers in an insolvency context, it could be argued that financial authorities may be more prone to engage in regulatory forbearance, as they will believe that there may less political or reputational fallout arising from the failure of a financial institution given that a policyholder protection scheme will meet the concerns of policyholders.

On the other hand, policyholder protection schemes enhance the credibility of authorities' commitment to close an institution, and limit governmental exposure to bail out costs. Compensation schemes may act as a catalyst enabling governmental authorities to fail an unviable financial institution in a timely manner, in the knowledge that losses to consumers will be minimal.

**Box 2. Moral hazard in the banking and occupational pension sectors**

While deposit insurance schemes in the banking sector are considered to be an important ingredient for instilling confidence and thereby promoting financial stability, such schemes are thought to increase moral hazard. For deposit-taking institutions, moral hazard effects might operate through reduced market discipline; specifically, the guarantee on bank liabilities (specifically, the retail deposit base) reduces the incentives of insured depositors to monitor the actions of banks. As insured deposits are a risk-free source of borrowing, banks might increase their risk-taking behavior.

In spite of concerns regarding moral hazard, the financial crisis demonstrated that, during an emergency situation, full protection can be useful to instill confidence in the bank and/or financial system, thus limit contagion, although there may be, in some cases, alternatives to achieving the same outcome, such as central bank liquidity support and swift mergers. Other financial sectors will not necessarily have the same immediate liquidity needs as banking, but in some crisis situations, non-bank financial institutions may be vulnerable to systemic problems in the financial sector such as through group structures.

For occupational pension protection schemes, if a plan sponsor knows that upon bankruptcy their pension fund liabilities will be covered by a compensation scheme, they may be incentivised, even if sufficient assets are not available to back these promises, to engage in undue risk-taking behaviour, leaving others to cover the costs of the pension promises they have made. Such behaviour may include raising benefits to unsupportable levels, cutting their own contribution rates, or pursuing a risky investment strategy.

### *B. Measures to limit moral hazard*

Moral hazard accompanying deposit insurance has been a policy concern amid it becoming a standard safety net in most countries. Moral hazard in deposit insurance has been addressed, within deposit insurance schemes, mainly by imposing maximum levels of coverage and seeking to ensure that the riskiness of financial institutions is reflected in risk-weighted levies.

The insurance sector has made various attempts to limit perceived moral hazard (*e.g.*, ban on disclosure of compensation scheme at point of sale) but some of the basic measures used to limit moral hazard, such as maximum coverage levels, are not applied (Cummins, 1988).[26] Given the problems that moral hazard can cause, adopting measures that can limit potential moral hazard should be carefully considered, with due attention to the nature and characteristics of the protected insurance products. Design features such as maximum coverage levels and the system of levies for funding the policyholder protection scheme may help to address any problems of moral hazard.

#### *a) Coverage level*[27]

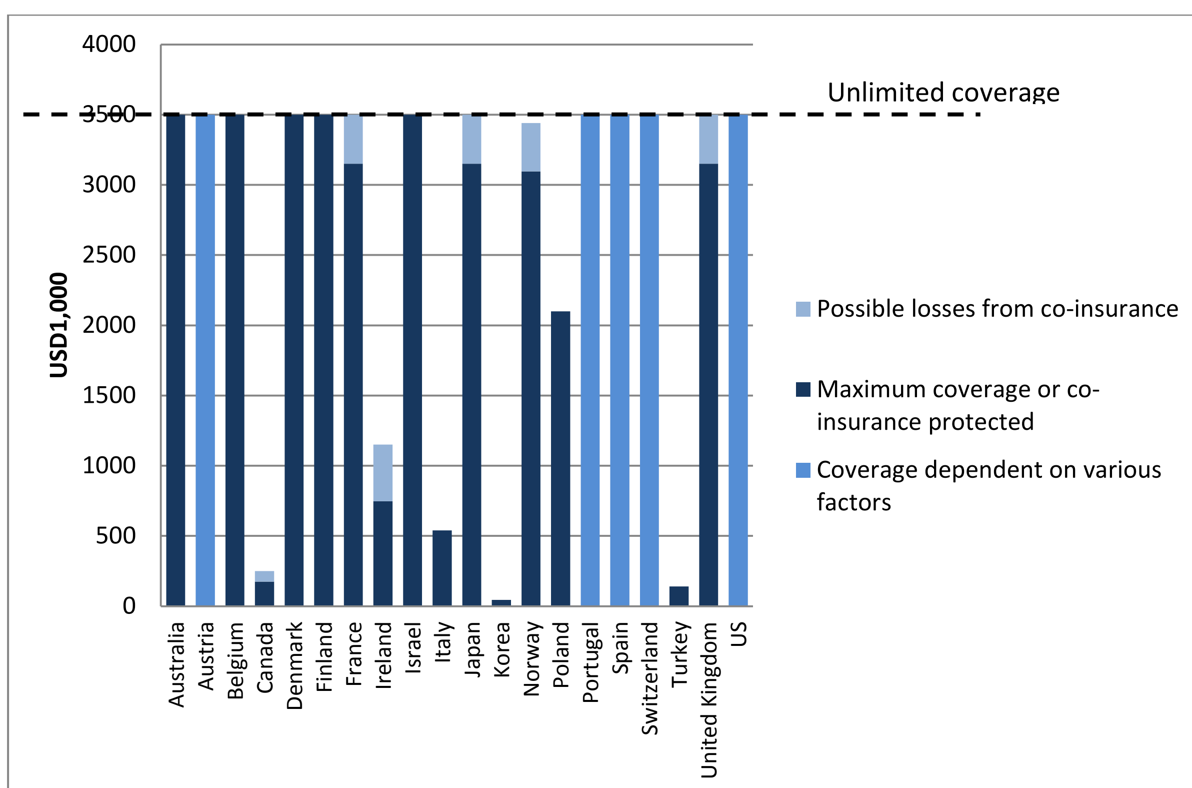
Figures 1 and 2 show that many countries provide unlimited protection through their policyholder protection schemes although some have co-insurance to limit the amount of protection. For non-life contracts, including coverage for specific lines, which have a shorter maturity, unlimited protection is often offered (see Figure 1) (Australia, Belgium, Denmark, Finland, France, Israel, Japan, United Kingdom). Ireland, which has the highest maximum coverage level protects up to USD 1.1m for non-life contracts. Switzerland's National Guarantee Fund for MTPL has a maximum coverage level of USD1.1m although this amount of coverage is per accident. Korea has the lowest maximum coverage level for all lines at USD45,000.

Life sectors also benefit from a number of countries offering unlimited protection (see Figure 2) (Austria, Estonia, Germany[28], United Kingdom). Where the level of protection is capped, the United States has the highest maximum coverage level for life lines at USD 0.5m. Korea and Poland have lowest maximum coverage at USD45,000 and 42,000 respectively.

The extent of unlimited payment coverage may be due to the fact that, financially, policies are often transferred to another insurance undertaking, making the possibility of a payout less likely. The policyholder protection scheme may, from this perspective, be viewed as the *provider/guarantor of last resort*, providing a backstop should it prove difficult to transfer liabilities. Further, particularly to the extent that co-insurance is provided, it may reflect expected recoveries in the event of an insolvency.

The level of coverage of deposit-like products in the life sector should take into consideration the level of deposit insurance. While insurance policies may not be subject to immediate liquidity risks as deposits, competition may be distorted if similar financial products are granted different levels of protection. Certain products with guarantees (*e.g.*, on interest rates) may require fuller protection if there is a deposit-like savings elements where compensation would be expected, as with a deposit, in contrast to other types of guaranteed products (*e.g.*, minimum market return) where compensation might be expected to be less given the comparison with investment products, where no guarantee is provided.[29]

**Figure 1: Coverage levels for non-life schemes in selected countries**




**Source:** OECD

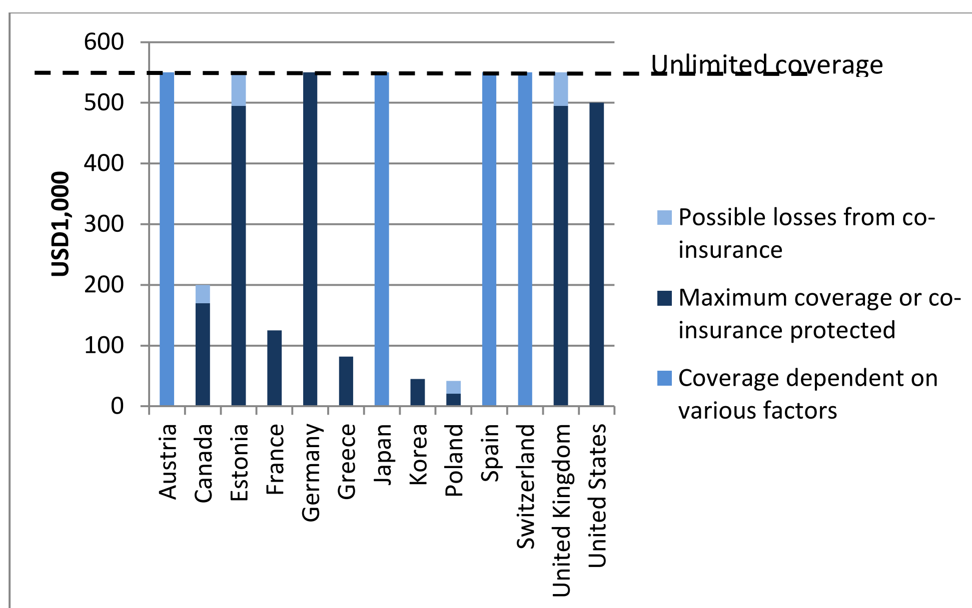
**Note:** The diagram has been simplified using the maximum available coverage in the country, irrespective of the line protected.
For France, the coverage is 100% for third-party liability claimants. For Japan, coverage is 100% for compulsory third party liability, earthquake, motor, fire and other non-casualty insurance, but 90% for other insurance lines. For Norway, coverage is 100% for residential and compulsory insurance, but 90% otherwise. For Portugal, the MTPL scheme's maximum coverage is limited to the amounts corresponding to the minimum insured capital. The workers compensation scheme's maximum coverage is limited to the compensation/restoration of the victim's capacity to work. For the United Kingdom, the level of co-insurance is 90% for non-compulsory insurance.

For Austria, Spain, and Switzerland, there is no pre-specified level of coverage, as these schemes are not policyholder protection schemes in *stricto sensu.* In Austria, the coverage for health and accident insurance is the actuarially estimated value of an insurance undertaking's obligations based on actuarial calculation methods. In Spain, there is no maximum coverage level, with the final payout dependent on the financial situation of each insolvent insurer and the "improvement

measures" that are applied following the rules established by Spanish Law. In Switzerland, the general non-life coverage is tied to technical reserves which are based on actuarial calculations. In the US, workers' compensation is typically determined by the states' workers compensation law, which would mean the guaranty fund will pay what the solvent insurer would have paid before liquidation.

The approach towards products with an investment element may need to be modified so as to take into account the nature of the risks that are linked to these products. In principle, market risk should receive limited protection, if any, particularly insofar as the funds backing such products are segregated from the general assets of the insurer. However, some annuities products have a strong savings element, with features similar to time deposits. Annuities for old age security may have a social element if the rate of return is guaranteed. Furthermore, investment products offered by some life insurers are linked to a guarantee of some nature, whether in respect to the performance of the investments over a specific period or in terms of a guarantee of a minimum amount upon death or occurrence of another insurance risk. These guarantees may introduce a social component, depending on the nature of the guarantee. This mixture may create a tension between the social element, which might warrant some level of protection, and any market risk element, a risk that in principle should be borne by the policyholders or the insurer, not the policyholder protection scheme.

**Figure 2: Coverage levels for life schemes in selected countries**




**Source:** OECD

**Note:** The diagram has been simplified using the maximum available coverage in the country, irrespective of the line protected.
For the United Kingdom, the level of co-insurance is 90% for non-compulsory insurance.
For Austria, the coverage is the actuarially estimated value of an insurance undertaking's obligations based on actuarial calculation methods, and is not limited to a certain amount. For Japan, final coverage level is 90% of applicable technical reserves. For Spain, there is no maximum coverage level, and the final payout of the scheme is dependant on the financial situation of each insolvent insurer and the "improvement measures" that are applied following the rules established by Spanish Law. For Switzerland, the general life coverage is tied to technical reserves which are based on actuarial calculations.

If it is the case that many insurance products are given unlimited coverage due to the high likelihood of the portfolio being transferred, this may need to be reflected in the design of the policyholder protection scheme. Coverage levels should be given careful consideration as a means to limit moral hazard and possibly better reflect differences in the purpose, importance, and features of

insurance products. Different products could be given different levels of protection, for example, with higher levels of coverage provided on products with a strong social element or those that are compulsory. Furthermore, different levels of protection could be provided within a single product, for example, fully protecting the first tranche of a claim, while discounting the protection for subsequent tranches of the claim.

The question of determining the appropriate maximum level of coverage for each insurance line requires careful deliberation. Indices like the proportion of policies protected, or proportion of premiums covered, could be considered as a basis for determining maximum coverage levels, but then the appropriate proportion will need to be determined. Clearly, there is a balance to be struck between offering an adequate level of coverage for most policyholders, and limiting coverage levels in order to minimise the costs of the policyholder protection scheme for the industry and reduce potential moral hazard effects.

For countries with schemes that are not policyholder protection schemes *stricto sensu*, and thus do not fully guarantee a coverage level *ex ante*, the amount of coverage will depend on factors such as the financial condition of the insolvent insurer and subsequent recovery efforts. For Austria and Switzerland, the coverage is the actuarially estimated value of an insurance undertaking's obligations based on actuarial calculation methods, and is not subject to any ceiling. For Spain, there is no maximum coverage level, and the final payout of the scheme is dependent on the financial situation of each insolvent insurer and the "improvement measures" that are applied to recover losses.

**Box 3. Lesson from the banking sector: the case of Norway**

The minimum framework for deposit insurance in the EU is dictated by the Deposit Guarantee Schemes Directive (DGSD) which has been revised as a result of the events that took place in 2008 (see Box 8). One aspect that was addressed in the revisions was to raise the relatively low level of deposit insurance in EU countries to a new harmonised, minimum coverage level of USD140,000 (100,000€) for implementation in December 2010. The DGSD is applicable to the European Economic Area (EEA), which includes Norway, as they incorporate EU legislation to ensure the homogeneity between EU and EEA markets.

Norway's deposit guarantee scheme has provided coverage of NOK 2m (approximately 250,000€) per depositor, per bank since it was established in 1996. This is significantly higher than the newly introduced maximum coverage level in the EU. The European Commission has argued that a considerably higher level of coverage would cause competitive distortions with neighbouring countries, a point on which Norway disagrees as the difference was even greater before the revisions were introduced, and did not in its view result in competitive distortions. In Norway, the 100,000€ protection level would cover 47% of deposits, while this protection would protect 72% of deposits in the Euro area. The current 250,000€ protection covers 58% of its deposits in Norway.

This brings into play the question of what level of maximum coverage is appropriate for the deposit insurance system. The proportion of deposits that are covered by the protection is raised in the Norwegian case, but if the deposit insurance system coverage limitation is applied by person, gathering each person's deposits held in different banks, the Norwegian system may in fact be providing even broader protection than it appears as its protection is per bank per person.

While most deposit insurance systems periodically adjust for inflation, beyond this, what level provides the sufficient level of protection to instill confidence in the banking system is not clear. The International Association of Deposit Insurers has a research paper that summarises some of the initiatives taken by the relatively recently established deposit insurers to determine the minimum coverage level, which include international comparisons, the percentage of depositors fully covered, or the ratio of the coverage limit to per capita GDP. Among the older funds, the United States limit was established in 1934 as equivalent to the then-existing maximum deposits in the U.S. postal savings system, and has since been increased to insure more large depositors and adjusted for inflation. Mexico's limit has been set with regard to that of the U.S., its principal trading partner.

The difficulty of ascertaining an appropriate coverage applies to policyholder protection schemes too, as the different levels of coverage indicate (Annex). Expectations of policyholders will have to be balanced with the burden of funding the protection.

**Source**: Norwegian Ministry of Finance (2010) and International Association of Deposit Insurers (2004).

*b) Co-insurance*

Co-insurance (a situation in which the policyholder also shares the burden of an insurer's failure) is widely used in the insurance sector when there is a defined, maximum coverage level (Canada, Estonia, France, Ireland, Japan, Norway, Poland, United Kingdom). The level of co-insurance varies between 50% and 90%. Co-insurance may be based on the notion that the consumer, due to his or her exposure to potential loss, can be expected to exert market discipline on the insurer by providing some form of monitoring through the purchasing process, which should in theory ultimately reward prudent managed insurers; co-insurance thus may help to limit moral hazard, ensuring that consumers take into consideration the financial condition of insurers in their insurance purchasing decisions. Alternatively, co-insurance may simply reflect an effort by the industry to share losses more explicitly with policyholders, and thus reduce the costs associated with the policyholder protection scheme; in this context, the co-insurance share borne by the policyholder protection scheme may represent the expected recovery rate for policyholders in an insolvency or the proportion of the policy value that can be expected to be retained in a portfolio transfer.[30]

However, the United Kingdom banking sector experience with regard to co-insurance has led to scepticism towards co-insurance in deposit insurance, with the EU recommending the abolition of co-insurance arrangements.[31] The combination of co-insurance and low coverage levels may have resulted in the "run"-like depositor behaviour in the United Kingdom. This has resulted in the abolition or de-emphasis of co-insurance among OECD member countries in deposit insurance (Schich, 2008).

While it is unlikely that policyholders will have a better grasp of the financial condition of insurers compared to depositors, the banking experience may not be directly applicable to the insurance sector given differences in product features and exit costs, as described above, and the limited likelihood of "runs" on most insurance products. There are a large number of life schemes subject to co-insurance which limit the financial burden of providing coverage for longer term insurance products. At the same time, the application of co-insurance to life insurance products with a saving element may need to be carefully considered in terms of competitive disadvantage with banking products where co-insurance is now largely absent within the OECD (see Box 4) and given the lessons learned from the use of co-insurance in the banking sector. If there is awareness of the co-insurance mechanism applied by the policyholder protection scheme, such co-insurance may discourage policyholders from taking out the cheapest available policy in the knowledge that they will share in some of the losses should there be an insolvency, barring insurance products with saving elements.

*c) Coverage and co-insurance: diversity of approaches*

Before considering other elements of policyholder protection schemes that may be relevant for moral hazard, it is worthwhile exploring, in more depth, the diversity of approaches among policyholder protection schemes regarding coverage levels and co-insurance, and comparing such approaches with compensation schemes adopted in other parts of the financial sector. The discussion is based on a small selection of OECD country examples.

i) Product features

The product range within the insurance sector is broad and diverse. The maturity and risk profile are among the differences distinguishing products. In this context, a product or insurance-line-based approach to coverage under a policyholder protection scheme merits consideration. Indeed, given such differences, a number of countries have separate policyholder protection schemes for different lines of business, *e.g.*, life and non-life.

Table 2 illustrates the diversity of insurance products and possible product features that should be taken into consideration in the design of a policyholder protection scheme. The maturity profile of products is the main difference between life and non-life lines. Due to the short-term nature of non-life products, the provision of compensation for claims may be sufficient for consumers. However, for long-term life products, where payouts may be made over a longer period, and for products having an important social component, continuity of contracts could be an important element of protection for policyholders, suggesting the need for an alternative approach, namely portfolio transfers.

**Table 2: Products features using the OECD common insurance classification**

| | Short-term | Long-term | Social | Investment | Savings | Mainly corporate |
|---|---|---|---|---|---|---|
| Life Insurance | | | | | | |
| Death | | X | X | | X | |
| Annuities | | X | X | X | X | |
| Personal injury | X | | X | | | |
| Accidental death | | X | | | X | |
| Disability due to accidents or to sickness | X | | X | | X | |
| Marriage insurance, birth insurance | | X | X | | X | |
| Life insurance linked with investment funds | | X | | X | | |
| Permanent health insurance | X | | X | | | |
| Tontines | | X | | X | | |
| Capital redemption operation | | X | | X | | |
| Non-Life Insurance | | | | | | |
| Accident (industrial injury & occupational diseases) | X | | X | | | X |
| Sickness | X | | X | | | |
| Land vehicles | X | | | | | X |
| Railway rolling stock | X | | | | | X |
| Aircraft | X | | | | | X |
| Ships | X | | | | | X |
| Goods in transit | X | | | | | |
| Fire and natural forces | X | | X | | | |
| Other damage to property | X | | | | | |
| Motor vehicle liability | X | | X | | | |
| Aircraft liability | X | | | | | X |
| Liability for ships | X | | | | | X |
| General liability | X | | | | | X |
| Credit | X | | | | | X |
| Suretyship | X | | | | | X |
| Miscellaneous financial loss | X | | | | | |
| Legal expenses | X | | | | | X |

**Source:** OECD Secretariat (based on the OECD Recommendation of the Council concerning a Common Classification of the Classes of Insurance Recognised by the Supervisory Authorities of the Member Countries (30 May 1984))

For products with a social element, the expectation of a full payout may be strong. Depending on the social security system of the country, the policyholder protection scheme may be designed for unlimited coverage. In this case, it is important that funding arrangements be adequate (see section d) on funding below). It is also important that an explicit guarantee of protection levels be made, indicating that the scheme would function in tandem with the social safety net.

Products with a saving or cash value element may need to be considered in light of deposit insurance. The threat of a direct "run" may not be present if the insurance contracts are long-term in nature and are not payable on demand without a penalty; however, policyholders could choose to annul their contracts and absorb the penalty if they consider the insurer to be insolvent.[32] Longer term contracts, especially with a saving element, may require greater protection through contract continuity by means of a portfolio transfer or a policyholder protection payout. As insurers do not have a large role in lending and invest in more liquid, marketable assets, and as insurance regulation includes requirements for technical reserves, the threat of insufficient funds for a payout is unlikely to be as great as for banks. However, the fact that funds accumulated over a period of time remain with a single insurer may unsettle policyholders should problems with the insurer arise, possibly causing a gradual or sudden "run"-like reaction by policyholders (Kimball, 1986).

The promptness that is required for payment to policyholders may affect considerations towards funding. Products that require prompt payment upon the failure of an insurer may make the funding of a policyholder protection scheme more challenging. For instance, for products with a savings or investment component, there may be an expectation of relatively prompt access to accumulated funds. In this context, compensation may have to be made simultaneously to a possibly large number of policyholders at once upon an insolvency (unless contracts are transferred to another insurer and kept intact), instead of being spread over time with compensation made in accordance with the occurrence of a risk event or expected schedule of payments.

In contrast, for insurance contracts with an investment element, investment risk may be present, so that a full payout upon insurer insolvency may not be as strongly expected depending on the nature of this risk and any associated insurer guarantees. For instance, it can be expected that an insurance product with a guaranteed interest rate return may, given its pure savings element, be given a stronger level of protection than an insurance product whose returns are market-linked, subject to possible minimum return guarantees provided by the insurer, What is important is to clarify the nature of the investment element and investment risk (if any), so that there is appropriate coverage of the contracts and transparency regarding the conditions under which a payout is guaranteed by the policyholder protection scheme.

A related point may be the priority that unearned premium reserves are given by the policyholder protection scheme. For life insurance, unearned premium reserves may be relatively high compared to loss claims, and may thus be covered under a policyholder protection scheme. However, for non-life insurance lines, unearned premium reserves may be relatively small compared to loss claims, and thus may be excluded from the scheme's coverage.[33] The Canadian Property & Casualty Insurance Compensation Corporation (PACICC), which provides compensation for unearned premium reserves, has conducted analysis that suggests that prompt provision of such compensation while the estate of the liquidated insurer is being processed, supports a smoother transition of policies from an insolvent to solvent insurer (PACICC, 2005).

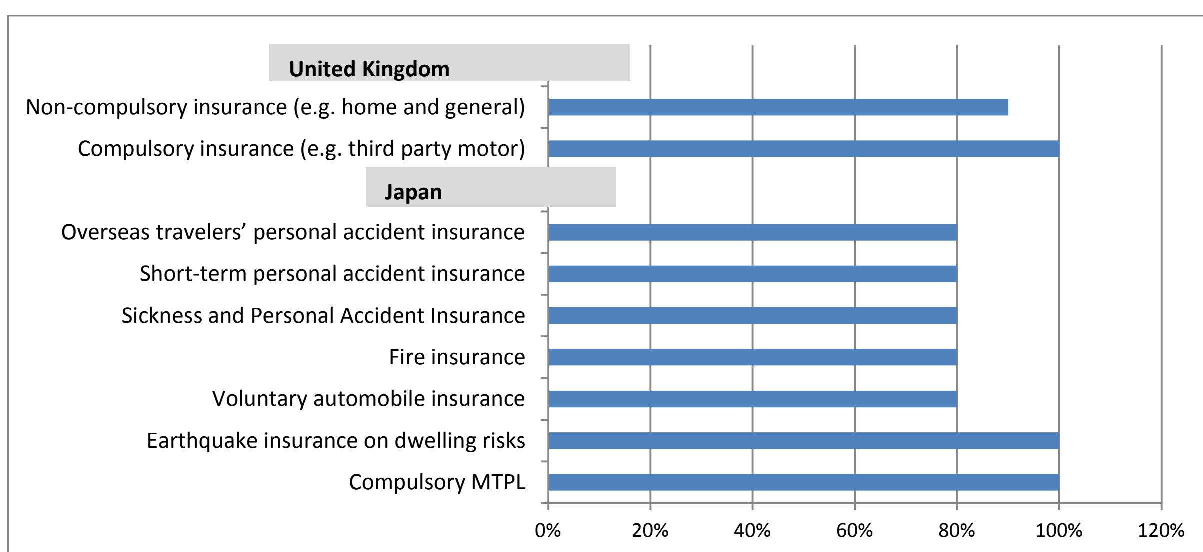
ii) Coverage levels

When the compensation level of each specific insurance line is investigated, differentials emerge in some countries.

- Non-life sector

In the non-life sector, Japan and the United Kingdom both give full protection to compulsory non-life lines. In Japan, earthquake insurance, while not compulsory, is also given full protection, which could reflect the significant risks linked to natural catastrophes in this country. In these countries, other lines, mainly non-compulsory, are protected from 80-85% (Figure 3), with differences between levels of protection. No maximum absolute levels of coverage are imposed.

**Figure 3: Co-insurance levels for non-life lines in the United Kingdom and Japan**




**Source**: OECD Secretariat

**Note**: Both countries have an unlimited maximum coverage level, but co-insurance in certain lines.
In Japan, overseas travelers' personal accident, short-term personal accident, sickness and personal accident, and fire insurance are protected 100% in the first 3 months, and 80% thereafter.

- Life sector

In contrast, for life lines, there is a combination of maximum coverage levels and co-insurance across countries. There appears to be greater divergence in approaches, with a combination of maximum coverage levels and co-insurance in each line (Figure 4). This may reflect the higher funding needs, and thus the need to match risks and incentives in the scheme. Selected country examples are provided below.

In the United States, there are differences in coverage across states. The National Association of Insurance Commissioners (NAIC) establishes recommended coverage levels for state guarantee schemes. For instance, NAIC recommends that states apply a maximum coverage level, with no co-insurance of:

- USD300,000 in death benefits;
- USD100,000 in cash surrender or withdrawal values for life insurance;
- USD250,000 in net present value of benefits for annuities, including net cash withdrawal and net cash surrender values;

- USD500,000 in major medical, basic hospital, medical and surgical insurance;
- USD300,000 for disability insurance;
- USD300,000 for long term care insurance; and
- USD100,000 for other health insurance.

The states of California and New York in the U.S. have approached the protection of their life lines differently, with California adopting greater variation in maximum coverage levels and also employing co-insurance, while New York has an overall higher level of protection. In California, the state guaranty scheme covers:

- 80% of death benefits but not exceeding USD300,00;
- 80% of net cash surrender and net cash withdrawal values for life insurance but not exceeding USD100,000;
- 80% of present value of annuity benefits, including net cash withdrawal and net cash surrender values, but not exceeding USD250,000; and
- health insurance policies up to USD470,125 (this maximum limit is subject to increase or decrease based upon changes in the health care cost component of the consumer price index).

In New York, the state guaranty scheme provides up to USD500,000 on accident and health, annuities, and other life insurance policies up to USD500,000. The New York legislature has opted to provide more coverage than is recommended by the NAIC model law, whereas California has generally embraced the model law limits but also applies the principle of co-insurance that, while not reducing the level of coverage available for claims, requires policyholders to share 20 percent of the loss within the covered amounts.[34]

Canada applies 85% co-insurance to life lines, except for accumulated value policies (deposit types) which are fully protected to CAD100,000. Canada has full protection up to the thresholds shown below, with co-insurance applied for amounts beyond the thresholds, with the exception of deposit-type insurance which is capped at CAD100,000:

- CAD200,000 for death benefits,
- CAD60,000 for health insurance,
- CAD2,000 per month for monthly income of various payout lines,
- CAD60,000 for cash value for life insurance, and
- Full protection for accumulated value of deposit type insurance up to a maximum coverage level of CAD100,000.

Canada's system takes into consideration consumer protection needs, by protecting policies below certain thresholds with full protection, while applying co-insurance to policies above the threshold. It is an interesting model that takes into account both consumer protection and potential moral hazard. The level and full protection for accumulated values are coordinated with the deposit insurance coverage of CAD100,000.

France's scheme has different maximum coverage level for its life insurance lines. Compensation for death and invalidity has a maximum coverage of 125,000€, while all other life lines have a coverage level of 98,000€.

There is also variation within the Japanese system, with more generous protection for policies with a guarantee and savings element. Japan protects life policies up to 90% of technical reserves, excluding high interest planned products.[35] If reserves are not impaired at the time of the insurer's

failure, policyholders would be able to receive 90% of the policy value. However, if adverse market conditions or risky investments result in less than full policy reserves, policyholders accordingly receive less. Thus, the receipt of the full and final payout from the scheme depends on the financial condition of the failed insurer, with the payout determined by administrative procedures. Past insurer failures show that it takes approximately 6 months to one year to investigate and agree on the financials of the insurer (Life Insurance Policyholder Protection Scheme of Japan, 2012).

Japan's policyholder protection scheme for life insurance can discount planned interest rates if the planned interest rate was higher than the basis interest rate set by the Financial Service Agency for the previous five years. The formula used for the co-insurance level for high planned interest rate is as follows:

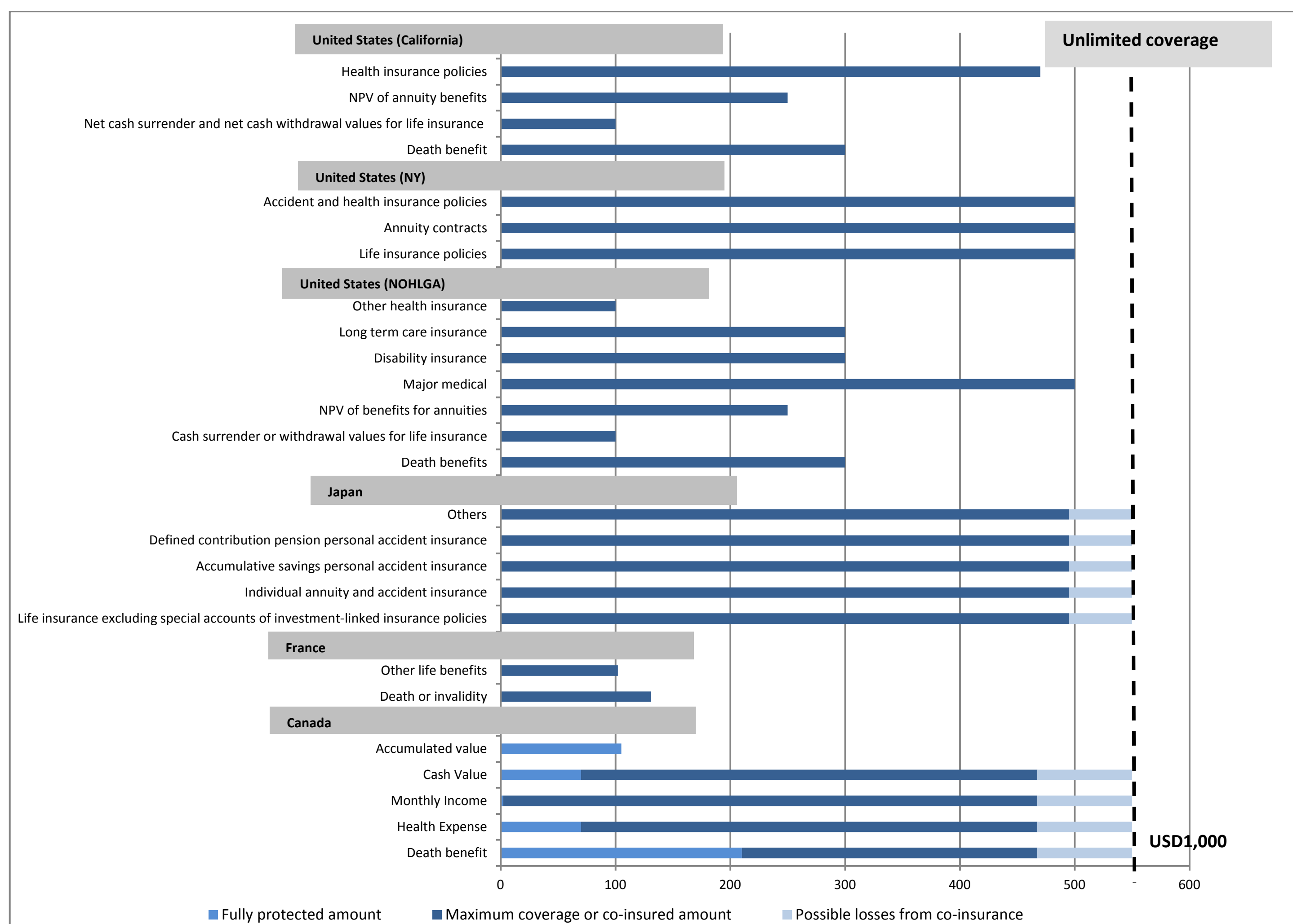
Co-insurance level = 90% - [sum of (planned interest rate) – (basis interest rate) for the past five years] / 2

The level of co-insurance is discounted by the excess of the planned interest rate over the market average, basis interest rate (based on the annual average investment return rate of all life insurers in the past five years; the Commissioner of the Financial Services Agency and the Minister of Finance sets the basis interest rate annually). Policies that were contracted during a high interest rate period will experience greater losses as a result of the discount to planned interest rates. Further, policies with a longer maturity will lose more. This result reflects the manner in which technical reserves are accumulated for each life insurance product, which is to accumulate technical reserves gradually towards the products' maturity.[36]

iii) Summary

Some countries have taken into account the differences in product features and applied varying levels of protection to reflect the nature of the product. However, a universal approach is not apparent other than granting full protection to compulsory insurance lines in non-life lines. While death benefits usually have a higher level of maximum coverage than other life lines, there is some divergence. Accumulated value products, or insurance with saving features, are often granted greater protection, but this treatment is not universal either. A general approach to guarantees does not emerge from the selection of countries above.

**Figure 4: Coverage in life lines in selected OECD countries**




**Source**: OECD Secretariat

**Note**: In Canada, full protection is provided up to a certain threshold, after which 85% co-insurance is applied.
In Japan, co-insurance of 90% of technical reserves is applied for all life policies excluding policies with high expected interest rates, and policies with an investment element. The compensation ratio for policies with high planned interest is: 90% - [sum of (planned interest rate) – (basis interest rate) for the past five years] / 2].
In the US (NOLHGA), for annuities, coverage is provided for net present value of annuity benefits (including net cash surrender and net cash withdrawal values) and for other life lines, for the cash surrender or withdrawal values.

**Box 4. Lessons from the banking and occupational pension sector: coverage and co-insurance**

*Coverage level*

In response to the difficulties financial systems experienced in the past crisis and the exit from temporary measures, there has been a general increase in maximum payout coverage for deposit insurance (Figure 2, Schich, 2008).

Most countries are converging around the maximum coverage level of USD140,000 (€100,000) which is the new harmonised, maximum coverage level of deposit insurance that the EU agreed as a result of the amendments in the Deposit Guarantee Schemes Directive (DGCD) for implementation in December 2010. The revision of DGCD also included better cross-border cooperation in the payout of deposit insurance (for details, see Box 8).

As for occupational pension protection schemes, the Swedish scheme is the only scheme that provides full benefits. Switzerland provides unlimited coverage to the government-mandated minimum benefits level, but with additional benefits subject to a salary cap. Vested benefits are protected with an annual cap for most (Canada (Ontario), Germany, United Kingdom, United States).

The Japanese occupational pension protection scheme only covers Employee Pension Funds (EPF). The EPF, while providing occupational pension benefits, also manage a portion of the public pension scheme - known as the 'substitution component.' The protection scheme guarantees 30% of this substitution component and half of the other benefits exceeding this amount. The coverage level differs between the occupational pension protection schemes, with the Ontario scheme covering USD12,000, while the United Kingdom system limits coverage to USD46,000 on an annual basis.

The widespread provision of unlimited coverage in policyholder protection schemes may be based on the expectation of portfolio transfer in the context of an insurance failure rather than direct payouts to policyholders. Unlimited coverage may impose a collective responsibility on the industry to ensure that a portfolio transfer takes place instead of a liquidation that would place a direct burden on remaining insurers. Deposit-taking institutions are also more often than not subject to transfers than deposit insurance pay outs.

Unlimited coverage, while providing maximum protection to consumers and helping to prevent contagion in emergency situations, creates moral hazard that can be counterproductive to the safety of the financial system in normal times. The ability to declare full protection in emergency situations may be necessary to preserve the overall safety of the financial system, but this should not prevent authorities from limiting coverage during normal times. This is more the case for banks that are subject to bank runs, with their insolvency having a higher systemic implication.

Temporary measures of unlimited deposit insurance that were introduced during the crisis are being phased out, and occupational pension protection coverage is limited in any case. So this raises the question of whether the unlimited coverage that many policyholder protection schemes provide is sustainable or desirable. High levels of protection should be accompanied by the possibility of additional contributions. For shorter maturity insurance products, such as non-life lines, the implication may not be as great. But for longer, life insurance products, a flexible and clearer funding mechanism, linked to additional funding may be able to better sustain the scheme in the long run. The experience of the occupational pension protection schemes is instructive in that they also deal with long maturity products.

The objectives of compensation schemes would be reinforced if mechanisms to limit moral hazard were built into the structure of the scheme.

*Co-insurance*

As mentioned above, co-insurance in deposit insurance has been abolished in most OECD member countries in light of the financial crisis. Co-insurance remains in Austria but for corporate deposits, in Chile for saving and time deposits, and the Czech Republic, all at 90%. For the occupational pension protection, the United Kingdom has co-insurance, as does its policyholder protection scheme. Co-insurance is applicable to occupational pension protection in the United Kingdom if the beneficiary is under pensionable age.

It is unclear whether the unlimited coverage provided by policyholder protection schemes is consistent with presumed objective of co-insurance, which is to enhance market discipline. Those individuals with higher value policies should be, in theory, in a better position to exert market discipline, as they can be assumed to be more sophisticated; thus, if market discipline is viewed as effective, a system of co-insurance should be subject to a limit or involve a gradual reduction in the co-insurance amount. Furthermore, co-insurance imposes losses proportionally across policyholders, such that policyholders with higher value policies are protected to the same extent as those with lower value policies. This approach could be perceived as inequitable and detrimental to less wealthy policyholders. Moreover, as opposed to a maximum amount that is protected, it is harder to perceive a percentage of protection; this potential uncertainty about coverage could weaken the confidence-building effects of a policyholder protection scheme. Guaranteeing a fixed amount may be simpler to comprehend and more effective, at least for a basic level of coverage.

Sharing the premiums of compensation schemes may be a transparent way in which to encourage consumers to take an active interest towards financial soundness. The premiums of a compensation scheme are likely to be ultimately partly borne by consumers in any case, so that it may provide a clearer incentive structure. On the other hand, consumers cannot be expected to monitor a financial institution as complex as an insurer, so that such an approach may only have very limited effect in incentivising a consumer to take an interest in the financial health of their financial institution and may be perceived as an industry-imposed "tax". Combining co-insurance with risk awareness could support the incentive structure of co-insurance.

*d) Funding*[37]

The funding of a policyholder protection scheme is considered to be a key element that can affect the moral hazard of insurers. Funding can generally be classified into *ex ante* and *ex post* funding.[38] However, within this classification, there are various combinations. In terms of OECD member countries' practices, both *ex ante* and *ex post* funding are equally used, and some combine *ex ante* and *ex post* funding. The key determinant of the funding approach should be the sustainability of funding, especially if insurer insolvency is frequent. In this respect, the features of insurance products may be an important consideration; for instance, products linked to a pure insurance risk may not require large immediate payouts on claims insofar as risk events are unrealised and risks are uncorrelated, thus reducing the need for upfront liquidity in the event of an insurer insolvency; by contrast, products with a cash value/accumulation feature or characterised by highly correlated risks across a large number of policyholders, may require the immediate payment of large compensation amounts upon an insurer insolvency.

i) *Ex ante* funding

Many schemes are *ex ante* funded (Canada[39], Denmark, Estonia, France, Germany, Israel, Italy, Japan, Korea, Norway, Poland, Portugal, Spain, Turkey), charging an annual levy which can vary depending on the level of funding. Italy has a high funding requirement at 5% of premiums or 0.5 euros per policy. Estonia, Greece, Israel, Japan, Korea, Poland, and Turkey charge annual levies as a percentage (0.038% to 2%) of gross premiums. Australia charges levies for its motor scheme depending on the number and types of cars insured. The Canadian life protection scheme assesses members based on their share of total capital required among members (using a three-year moving average). Denmark also uses the number of policies for its non-life levies. France charges a percentage of mathematical provisions (0.15%) as levies. Germany uses net reserves (0.02%). Ireland, Norway and United Kingdom base contributions on premium income. Portugal charges the total amount of wages (0.15%) which are insured for its workers' compensation insurance.

A large number of *ex ante* schemes have the power to impose additional contributions (*e.g.*, Canada, Denmark, France, Germany, Korea, Poland). The Estonian scheme can take out a loan in the event of insufficient funding, which would be funded *ex post*. The Japanese schemes are able to tap government funding if the funds are depleted and the annual levy proves to be insufficient.

In Spain, *ex ante* funds are collected from policyholders, not insurers. Non-life insurance policyholders are charged 0.15% of premiums for the purpose of the policyholder protection scheme. The Swiss MTPL scheme also collects *ex ante* funds from policyholders, although this is done together with insurance premiums, with a fixed amount per annum.

In a competitive marketplace, *ex ante* assessments on insurers help insurers to internalise, and thus reduce (but not eliminate), agency costs associated with imperfect policyholder monitoring of insurer's risk-taking activities (Han, Lai and Witt, 1997). Any *ex ante* premium paid to a policyholder

protection scheme represents the price paid for a put option on the insurer's assets with a strike price equal to the value of the insurance policies (Cummins, 1988).

*Ex ante* funding helps to build up funds during normal (non-emergency) times, allowing these funds to be drawn down upon the insolvency of one or more insurers, in times of potential market stress, in counter-cyclical fashion. This buffer permits the losses that exceed the accumulated funds to be limited, thus arguably presenting *ex ante* funding arrangements as a macroprudential policy tool. It is easier for the industry to fund an *ex ante* scheme in normal times, rather than at times of market stress when it may be difficult to obtain funds from the industry in the short-term to cover the failure of an insurer or several insurers. Furthermore, policyholder protection schemes with *ex ante* funding can play an active (and indeed, pro-active) role in facilitating the transfer of the portfolios of a failed insurer if there is a provision for the schemes to provide possible financial assistance to those insurers taking over the portfolios.

*Ex ante* funding may be better suited to handling a situation of multiple insurer failures, if such a situation were to arise. *Ex post* funding is premised on the capacity of non-troubled insurers to cover the obligations of failing insurers in respect of the amounts guaranteed by the policyholder protection scheme (Schwarcz, 2011). Multiple failures could place a large financial burden on remaining insurers, which may already be experiencing financial difficulties. An *ex ante* fund could, theoretically, help to lessen the impact of multiple failures and thus address, in a countercyclical manner, potential sector-wide problems.[40]

Hong Kong recently decided to establish a policyholder protection scheme with *ex ante* funding, with scope for recourse to possible additional levies. The rationale provided for this approach was the need to ensure the availability of an *ex ante* reserve to meet liabilities through an affordable levy that is counter-cyclical, thereby avoiding funding pressures that could affect the industry during an economic downturn (FSB-HKSAR, 2011a, 2011b).[41]

However, a key drawback is that *ex ante* funding tie up funds that could have been used for other productive purposes, creating opportunity costs. Such funding could thus be perceived to be unnecessarily onerous if the insurance industry believes itself to be safe and well regulated, with a remote risk of any insurer insolvency. *Ex ante* funding is likely to be reflected in the pricing of insurance products, hence shifting costs to current policyholders. A remote but nonetheless possible risk for an *ex ante* funding approach, where the scheme is run by the public sector, is that the funds might be appropriated by the government for another purpose..

ii) *Ex post* funding

There are a number of *ex post* schemes (Australia, Belgium, Finland, Ireland, Poland, United Kingdom, United States[42]). As the payout of claims by a policyholder protection scheme for a failed insurer may, depending on the nature of the product and type of protection provided by the protection scheme, span over a number of years, *ex post* funding enables the industry to spread the collection of funds over a number of years.

*Ex post* funding can be allocated based on the gross premiums of each insurer (Finland, Poland), or premium income (Ireland and United Kingdom), and net reserves (Germany (private health)). The United States (NAIC) recommends basing levies on marketshare in the state, with a cap set at a level of 2% of annual average premiums. However, some countries do not have a predetermined method for *ex post* funding (Austria, Belgium).

It is argued that *ex post* funding may increase the monitoring effects, as stakeholders (including other insurers, shareholders, and consumers) of all insurance companies may have a stronger incentive to monitor, since bankruptcy costs will be borne by the surviving members of the industry, with the impact depending on the level of market discipline within the market (Rymaszewski and Schmeiser, 2010). In addition, *ex post* funding may provide incentives for financially strong insurers to press for effective regulatory oversight (Harrington, 2011).

*Ex post* funding could be a more appropriate funding mechanism for products where claim payments are typically made over time (unless there is a catastrophe event), whereas for some products with a saving and investment component, prompt payments might be needed in the context of an insolvency (unless policies are transferred to another insurer). For example, the US guaranty system has, for many years, made prompt payments and facilitated transfers of life insurance and annuity portfolios using *ex post* funding (NOLHGA, 2011).

Nevertheless, under *ex post* funding, there is no "cost" that is incurred *ex ante* for the protection provided by the policyholder protection scheme. Riskier insurers that end up failing will not have contributed to the funding of the policyholder protection scheme; only those remaining, solvent insurers foot the bill. *Ex post* funding creates funding needs from the industry just when the insurance market may be facing difficulties, for instance with one or more insolvencies to address.[43] However, policyholder protection schemes that employ *ex post* funding have demonstrated their ability to handle multiple insolvencies at once, in part because insolvent companies typically have significant assets, policy-level claims may have priority over other claims, and insurance obligations can often stretch out for a number of years.

iii) Additional contributions

*Ex post* or *ex ante* schemes that can demand additional contributions (Belgium, Canada, Finland, Estonia, Finland, France, Greece, Ireland, Israel, Japan, United Kingdom, United States) often have a role in supporting the portfolio transfer of a failed insurer or in maintaining the continuity of contracts. Japan and Korea have *ex ante* funds, but the Japanese scheme can benefit from governmental capital support, and the Korean scheme from funds of the deposit insurance. This function may become increasingly important as governments seek assurances from the industry to maintain confidence in the insurance sector and ensure adequate consumer protection, while limiting public financial assistance.

Underfunding, in which a policyholder protection scheme does not have sufficient funds to support a payout to policyholders in the context of a failed insurer, can undermine the credibility and long-run sustainability of a compensation scheme. The possibility of collecting additional funds, when the scheme becomes severely underfunded, should be included in the design of a policyholder protection fund to ensure that the fund is able to meet its promises and is ultimately financial sustainable.

*e) Risk-weighted contributions*

Risk weighting is being used for calculating levies in Germany and Korea. Germany uses a weighting system by ranking firms based on their financial capacity. Korea can require a special contribution from an insurer if specific reserve ratios are not met. Risk weighting of levies has yet to be introduced for most policyholder protection schemes, although, theoretically, it is seen as a way to ensure that insurers that pose greater risks to the scheme pay higher levies.

When a policyholder protection scheme applies risk-weighted premiums, the cost of insuring against an insurer's expected failure should in theory be reflected in the premium paid to the fund.

Non-risk-based premiums do not reflect the riskiness of the insurer, as riskier activities are not penalised by higher levies, which can lead to cross-subsidisation of funding among insurers participating in the scheme. Risk-weighting could, if applied appropriately, help limit moral hazard, with the risk profile of financial institutions reflected in levies for the scheme, thereby reducing incentives for excessive risk taking.

If, in the absence of risk-based premiums, insurers engage in riskier activities because of the policyholder protection scheme, regulatory costs may rise as a result of the need for more intensive supervision. If this is the case, risk-weighted premiums can potentially help to reduce risk-taking and serve to identify riskier insurers. In order to do so, risk-based premiums need to reflect the level of (excessive) risk-taking in order to ensure that the costs of such risk taking are adequately internalised by insurers.

Risk-based capital requirements often link mandatory solvency capital to the amount of risk borne by an insurer, which may be the most straightforward variable as a proxy for riskiness and costliness of insolvency, as the solvency level or expected failure rate will be reflected in the formula (Rymaszewski and Schmeiser, 2010).[44] Some propose that risk-based premiums be based on a value at risk model (Lindset, 2008).[45] Germany ranks firms by their financial capacity (EU, 2007).[46] Korea requires additional contributions if specific reserve ratios are not met (see Annex II). In order to ensure a genuine risk orientation, fund premiums should be paid solely by the participating companies and disbursed in advance, *i.e.*, by *ex ante* funding (Rymaszewski and Schmeiser, 2010).

Occupational pension protection schemes often use the level of underfunding for risk-based premiums. Ontario, Canada and the United States use the number of participants and the underfunded amount. Germany and Switzerland use the proportion of liabilities. Japan’s premiums are related to the size of the company, size of benefit, and risk adjusted for level of underfunding. Sweden uses the percentage of liabilities, and requires collateral if insolvency risk is deemed high (see Annex II).

Temporal and situational factors can also play a role in formulating an effective risk-weighting so as to reflect events that are exceptional or have a large impact. Changes in situation include loss experience from catastrophe risk which are likely to have the most significant impact (Duan and Yu, 2005). Insolvency risk could be captured in risk-based premiums by taking into account recent regulatory responses taken by the insurance regulator (Duan and Yu, 2005).

The discussion on risk-based capital provides some insight into the parameters that can be integrated into the consideration of risk-based premiums, as the capital level is adjusted to reflect the various risks of an insurer (Eling and Holzmüller, 2008). However, given that some policyholder protection schemes are operated by industry bodies, risk-based premiums cannot use variables that are not publicly available, so that a coefficient that can capture the risk profile of most insurers most closely should be employed. While an *ex ante* policyholder protection scheme funded by risk-based premiums may be attractive in theory, designing and administering a risk-based premium approach may be difficult in practice. Limited research has been carried out on risk-weighted premiums for policyholder protection schemes (Cummins, 1988; Duan and Yu, 2005) and further investigation would shed light on whether risk-based premium systems can be implemented for policyholder protection schemes. The model would have to be sufficiently robust to address incentives to limit moral hazard, as well as being sufficiently generic for all applicable insurers.

**Box 5. Lessons from banking and occupational pension sectors: funding and levies**

*Funding*

Most deposit insurance schemes are *ex ante* funded, with some having the option of requesting additional contributions. Australia, Austria, Chile, France, Italy, Luxembourg, Netherlands, Slovenia, and Switzerland are *ex post* funded and limited to a "paybox" function.

Deposit insurance premiums are often a percentage of insured deposits, but Mexico's levies are based on bank liabilities. Some levies are set by law, but most are based on an annual assessment of the previous year. Some of the *ex post* funding schemes do not have a clear method for determining contributions to the deposit insurance fund (Chile, Luxembourg, Netherlands).

A feature which may have implications for policyholder protection schemes, especially life insurance coverage, is the fact that many of the occupational pension protection schemes are severely underfunded (Canada (Ontario), United Kingdom, United States). The Pension Benefit Guarantee Corporation of the United States announced a deficit of USD33 bln in May 2009. £42 bln (USD66 bln) for the United Kingdom's Pension Protection Fund in June 2010. There was a CAD 9.6 bln (USD9.3 bln) deficit in the Ontario Pension Benefit Guarantee Fund as of January 2010. This is due to a number of political and financial reasons, but there is difficulty in maintaining a funded position unless funding can be adjusted according to the economics of the plans. Without sufficient funding, or the ability to raise sufficient funds at times of need, the funding of a compensation scheme may not be sustainable. An occupational pension fund liability can endanger corporate mergers. The United Kingdom Pension Protection Fund can take over pension funds of a corporate that is to be merged or acquired, allowing the failing corporate and its occupational pension to be separated. The Japanese scheme can take over corporate pension funds if there is a decline in the finances of the corporate or its industry. Life insurance lines are also long-term, and payouts may be high. Ensuring adequate funding may be an important consideration for life insurance in particular, unless portfolio transfers are expected to be the typical outcome of life insurer failure resolution.

In Germany, most occupational pension schemes are protected by the Pensions-Sicherungs-Verein which has an *ex post* funding mechanism. The financing mechanism of pensions that are being paid out or have vested rights was changed from a partially funded contribution model to a fully funded system in 2006. German Pensionskassen and, in general, occupational pensions via direct insurance do not fall under the scope of this occupational pension guarantee fund. Direct insurance with an insurance company is covered by the insolvency insurance programme for life insurers (Protektor), while Pensionskassen may be covered by this programme on a voluntary basis.

An aspect that has emerged over the past few years is the increasing unwillingness of the public to support financial institutions in financial difficulty, a position reinforced by the difficult fiscal situation in many countries which limit the ability of governments to bail out the financial industry. This reality may create the need for compensation schemes to look towards funding mechanisms that are sustainable, realistic, and not dependent on the public sector. In addition to the *ex ante* or *ex post* funding, the ability to request additional contributions when there is a shortfall is one way to address the issue. Whether *ex ante* or *ex post* funded and in whichever financial sector, a mechanism should be available that ensures additional contributions can be collected when necessary to maintain financial sustainability of the scheme.

Another avenue which would merit deliberation is the possibility of the policyholder protection scheme financially assisting insurers that take over insolvent insurers. This would support the process of portfolio transfers that would be convenient for policyholders. Without such funding, it can be expected that any transfers, should they take place, might involve a cutback in benefits for policyholders. This is pertinent to the insurance sector, given the frequency that insolvent insurers are taken over by solvent insurers.

*Risk-weighted premiums*

Deposit insurance schemes adopting a risk-weighted funding mechanism have diverse approaches to contributions. Countries which have risk-adjusted contributions are Canada, Finland, Germany, Hungary, Italy, New Zealand, Portugal, Sweden, Turkey, and United States. Risk is adjusted by liability size and credit rating (New Zealand), and solvency ratio (Portugal, Sweden).

Most occupational pension protection schemes have a risk-weighted element in their levies. The pension protection scheme in the United Kingdom takes into account the level of underfunding and riskiness of the sponsoring corporate. Canada (Ontario), Japan and the United States take into consideration the underfunded amount. Sweden charges a flat levy, but takes into consideration risk via taking a lien on corporate assets.

### *C. Other measures*

Insurers are prohibited from advertising the availability of protection at the point of sale in Estonia[47] and the United States.[48] This prohibition is designed to ensure that the policyholder exercises due diligence in purchasing an insurance contract, and thus is intended to reduce moral hazard and strengthen market discipline. The protection provided by the policyholder protection scheme on the policy is disclosed only once the policy is issued. While the United States is the only case that has been verified, this method may be used in other countries.

## IV. Position within the resolution framework[49]

Compensation schemes can be viewed not only as part of the financial safety net but also as part of the resolution framework. This requires coordination with other parties involved in the safety net, and integration with the overall resolution framework. The basic functions of policyholder protection schemes are the payout of policies and/or continuation of contracts. The provision of compensation or "paybox" function is similar to other sectors. Yet, similar to compensation schemes in other sectors, compensation schemes may take on a variety of functions to support the resolution of a financial institution.

If the scheme has a large role in processing the estate of insolvent insurers, this would require a permanent secretariat with resources and expertise in insurance insolvencies or ready access to outsourcing services in this field. If the policyholder protection scheme is *ex post* funded, the lack of a built-up fund would make capital or liquidity support for a failing insurer difficult. The extent to which a policyholder protection scheme is given intervention functions may be affected by the seniority that the insolvency framework places on insurance claims. If an insurance claim has only a junior claim in the insolvency regime, claims may need to be better protected so as to limit the losses that policyholders might experience.

The most basic paybox functionality is provided by most policyholder protection schemes, except for Germany which provides contract continuity. Some policyholder protection schemes are limited to the paybox function (Australia, Austria, Denmark, Italy, Norway, Poland, Turkey, United Kingdom).

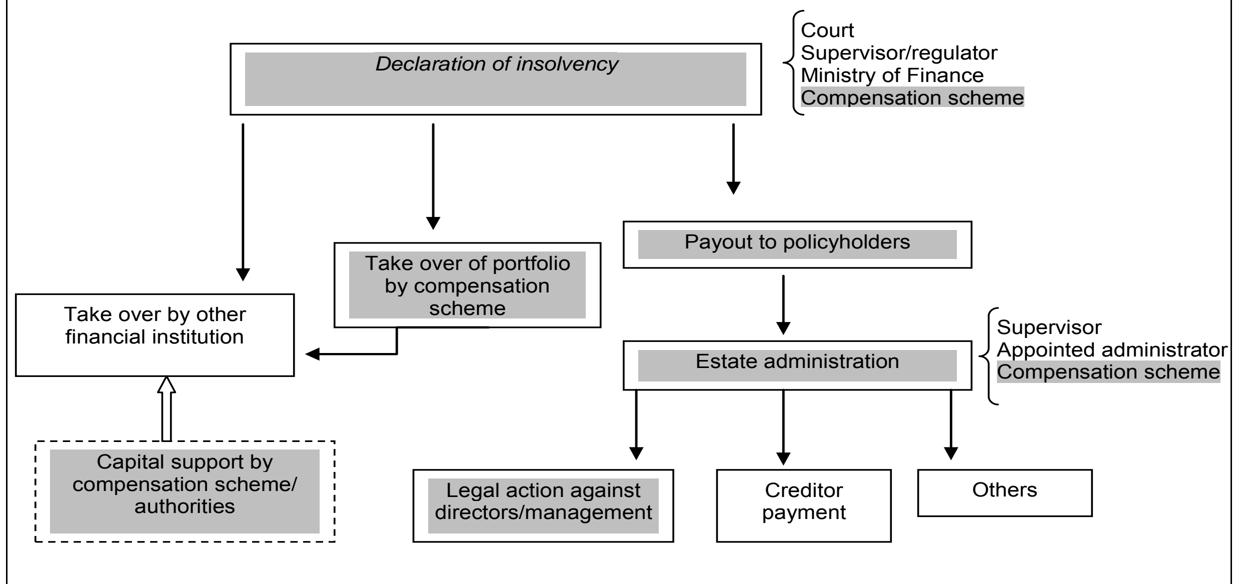
Many schemes provide support for portfolio transfers in line with the need for contract continuity (Belgium, Canada, Estonia, Finland, France, Germany, Greece, Ireland, Israel, Japan, United States). Some schemes provide capital support to the insurer that takes over a troubled insurer (Japan and Korea). The Irish and Spanish schemes have a wider range of functions, including supporting the administration of a failed insurer. In Spain, the Consorcio de Compensación de Seguros, which is attached to the Ministry of Economy, is responsible for the winding-up of insolvent insurers.

Contract continuity is the only means foreseen by the German schemes and the operator of the life insurance scheme is licensed as a life insurer in order to facilitate this activity. The German life insurer scheme assumes the insurance contracts, and administers them until termination or until they are transferred to another insurer. Life policies, which have a longer maturity, are generally considered to be better off if the contracts are continued, rather than ended with a termination and/or compensation payout.

**Box 6. Resolution framework for insurers and the role of compensation schemes**

Resolution of an insurer will vary depending on whether there is a dedicated insolvency framework for insurers, or whether the general corporate insolvency framework applies. Further, the stipulated involvement of the regulator/supervisor changes the manner in which the resolution is directed and its intervention powers.

Below is a simplified diagram of the procedures that may take place during the insolvency of an insurer with a focus on possible roles of the compensation scheme. Who is responsible for each process will depend on the existing insolvency framework. Elements in which the compensation scheme may be involved or responsible are highlighted.




The intervention by a policyholder protection scheme would usually be preceded by a determination/declaration by the supervisory authority, court or other authority regarding the inability of an insurer to meet its obligations. As mentioned, one of the advantages of a policyholder protection scheme is the speed in which payment for claims can be made compared with a formal insolvency procedure which can often be very lengthy. For non-life insurance schemes, the policyholder protection scheme pays compensation to cover losses by policyholders (and third parties). However, not all schemes may be able to make immediate payouts due to assessments required to ascertain the amount of payout. The circumstances and conditions under which early and late payouts are made could be a subject for further investigation.

Policyholder protection schemes are equally represented by those that are only a paybox and those with a wider functionality. The situation may depend on the availability of a wider resolution framework for insurance insolvencies. Resolution mechanisms are often established as a result of failures, and this experience would influence the design of the resolution framework and the subsequent role that a compensation scheme plays within it.

If the insolvency framework provides policyholders with seniority, estate assets may be sufficient to compensate policyholders, However, should estate assets be insufficient for payouts, or payouts from the estate slow due to legal process, a compensation scheme can provide greater certainty regarding outcomes and could accelerate payouts, thus introducing greater efficiency and speed for

claims payouts and ensuring a level of protection from loss. A policyholder protection scheme could thus help ensure that the interests of policyholders are sufficiently addressed in the context of insolvency. Whether the insolvency framework alone determines the outcomes for policyholders or is complemented by a policyholder protection scheme, predictability along with the availability of tools and procedures often provide a catalyst and framework for enabling the orderly resolution of a failed insurer.

Given the costs and inconveniences of an insurer failure, it may be desirable, from the perspective of the policyholder, for another insurer to take over his or her policies. This would keep disruptions to a minimum and avoid the costs of insolvency proceedings. If the transfer of policies is seen as a strong alternative to closure, this option should be recognised within the resolution framework and/or compensation scheme. However, due consideration should be given to the potential moral hazard effects of expected portfolio transfers as a means for failure resolution.

The extent to which compensation schemes can more efficiently respond to insurer insolvency has yet to be investigated. Nevertheless, the availability of payout arrangements or portfolio transfers prevents policyholders from taking rash actions, while speeding up the process of unwinding an institution. This has been an important element in ensuring stability when banks failed during the past crisis. While the prevention of runs may not be of primary concern to the insurance industry, being able to provide policyholders with payouts swiftly where necessary would lead to greater stability of the insurance market, instil confidence in the sector, and improve the welfare of policyholders.

**Box 7. Lessons from the banking and occupational pension sectors: resolution**

None of the occupational pension protection schemes is directly involved in the resolution of a troubled occupational pension fund as it is a matter of the sponsoring corporate or fund, unless the sponsoring corporate or fund itself is in financial difficulty. However, the United Kingdom Pension Protection Fund can takeover an occupational pension fund to assist the negotiation and takeover of the sponsor firms, as sponsor firms' takeover can be jeopardized if the pension fund is facing financial difficulties. The Japanese scheme can take over a corporate pension fund if the finances of the sponsoring firm or its industry deteriorates rapidly. So the occupational pension protection scheme can also have an indirect role in resolving the failure of the sponsoring corporate.

Of deposit insurers, there are a larger number of those with a paybox function only than those that also have wide intervention roles. Those with an intervention function are Canada, Israel, Japan, Korea, Mexico, Poland, Portugal, Turkey, United Kingdom, United States, and Indonesia, although the functions vary. Canada, Japan, Korea, Mexico, Poland, United Kingdom, United States, and Indonesia have a wide ranging role, providing capital assistance, carrying out purchase and assumption, and establishing bridge banks. Israel does not have an explicit deposit insurance system, but the governor of the Bank of Israel holds potentially strong powers to intervene in a bank.

As noted above, all OECD member countries besides Israel have an explicit deposit insurance scheme. While the prevention of bank runs has been an important rationale for deposit insurance schemes, the need for speed and predictability in payouts and protection against loss are considerations that apply equally to the insurance sector.

Given the systemic dimensions of the banking sector, the need for a more comprehensive resolution framework is greater for this sector than for other sectors of the financial system. However, resolution powers may not necessarily reside with the deposit insurer. Bank resolution may be administered by a dedicated or designated agent (*e.g.*, central bank or supervisory agency), and/or ad hoc measures taken to cope in the eventuality that it occurs.

Whether it is better to assign resolution powers to the compensation schemes is not clear from the analyses of the banking and insurance sectors (Box 1, Schich and Kim, 2011). It may depend on the institutional structure that a compensation scheme is given, or the additional powers required by the compensation scheme to carry out its such functions.

Another consideration may depend on who operates the compensation schemes. The operation of compensation schemes may be carried out by: a) regulator/supervisor/central bank, b) ministry of finance, c) industry association, or d) a corporation established by the authorities. It may not be appropriate or possible for an industry body to administer intervention functions due to limited resources and legal powers. On the other hand, the need to shield taxpayers from the cost of failure resolution may prevent authorities from using a public institution.

Depending on the country, and the frequency and number of financial institution failures, the need and objectives of a resolution scheme (*e.g.*, "paybox," least cost resolution, powers to declare an insurer insolvent) will also affect the functions of a compensation scheme. If failures do not occur often, the need felt for a permanent, institutional structure and formal resolution framework may not be strong, with reliance placed on higher regulatory capital/solvency/funding requirements and supervisory interventions. But for countries with a large number of financial institutions entering and exiting the financial system, it may be more suitable to have a more permanent structure for resolution.

Ultimately, higher regulatory requirements, while supportive of a stronger and more resilient financial system, cannot rule out financial institution failure. This and the effect that such a failure would have would need to be taken into account when discussing the form of a resolution framework. Not only are financial institution failures expected as part of a competitive financial system, but there is a need to promote frameworks that permit orderly resolution of failing institutions, no matter how large, to prevent the too big to fail problem, which also induces moral hazard.

## V. International and cross-border issues[50]

The Committee has expressed interest in the manner in which policyholder protection schemes interact in a cross-border insolvency situation. The problems experienced by AIG resulted in the breakup of the group, and many of its international entities are in the process of being sold off. If the insolvency of an insurer triggers the payout of compensation, but the procedure for policyholders overseas or treatment of a branch is uncertain, this may affect rights of related parties such as policyholders, creditors and employees. Cross-border insolvency of banks has been an important topic within the G20 and the Financial Stability Board (FSB)(FSB, 2009). The IAIS has discussed the cross-border aspects of insolvency of globally active insurers, accounting for the specificities of the insurance business model and the approaches to the resolution of non-viable insurers (IAIS, 2011). Predictability of compensation, if an insurer were to fail, would bring certainty and timeliness to a procedure that might otherwise be time consuming and fraught with complexity.

The movement of people and capital have become ubiquitous, with many financial institutions operating at a global level with the cross-border resolution of a financial institution becoming a reality, as demonstrated by the recent troubles of AIG, Fortis, Lehman, Dexia, the Icelandic banks Landsbanki and Glitnir, and BCCI in the past. However, there is not yet a consensus on the method or procedure to effect the cross-border resolution of financial institutions (Basel Committee on Banking Supervision, 2010).

This section discusses participation in schemes by foreign entities, the treatment of branches and the treatment of non-resident policyholders/depositors. Data is yet to be collected on these aspects for occupational pension protection schemes. Nevertheless, the reservations made under Codes of Liberalisation of Current Invisible Operations (CLCIO) suggest that cross-border transactions in insurance and private pensions on a non-establishment basis (*i.e.,* without a branch or subsidiary) face important barriers across OECD member countries (though liberalised within the EU and EEA). Items D/2 (insurance relating to goods in international trade), D/3 (life insurance), D/4 (all other insurance), and D/8 (private pensions) oblige members, in principle, to not only allow respective contracts to be traded freely cross-border without the need for establishment, but also to permit the free transfer or

rights arising from them. However, barriers to cross-border trade — banning of solicitation/marketing without residency, related branching/subsidiary requirements — limit the possibility of insurers offering products on a cross-border basis, although such overt restrictions on cross-border trade do not usually apply to reinsurance. These barriers do not exist for cross-border trade within the EU or EEA. The issue at the OECD level may therefore be whether insurers are able to freely participate in the country's compensation scheme when establishing abroad through a branch, and whether policyholders purchasing contracts on a cross-border basis through a branch or while abroad will be able to benefit from the protection of a scheme.

**Box 8. Cross-border aspects of the EU's Deposit Guarantee Schemes Directive (DGSD)**

- Depositors at branches in a host state will be covered by the scheme of the home state.
- Member states shall ensure that credit institutions make available to actual and intending depositors the information necessary for the identification of the deposit guarantee scheme that the institution and its branches are members of within the European Community (the Community).
- The DGSD includes a 'topping up' clause (*i.e.* rules on voluntarily joining host-state deposit guarantee schemes by branches, if the level and/or scope of cover provided exceeds that provided by their home state scheme).
- In circumstances where the head office of a credit institution is outside the Community, branches must have cover and information equivalent to that detailed in the DGSD. Failing which, they may be required by host states to join their deposit guarantee schemes.
- In order to facilitate the payout process in cross-border situations, the host country DGS acts as a single point of contact for depositors at branches in another Member State. This includes not only communication with depositors in that country (acting as a 'post box') but also paying out on behalf of the home country DGS (acting as a 'paying agent').
- Agreements between DGSs facilitate the payout process. Schemes have to exchange relevant information with each other. Mutual agreements will facilitate this. Banks reorganising themselves in a way that causes their membership of one DGS to cease and entails membership in another DGS will be reimbursed their last contribution so that the can use these funds to pay the first contribution to the new DGS.

### *A. Treatment of non-resident persons*

The status of a non-resident's status may become important when a previously resident person moves abroad and becomes a non-resident, or when the policyholder purchases an insurance contract while travelling to another country. Further, there are an increasing number of persons who purchase financial products overseas via the internet or brokers.

For insurance contracts, one aspect that should be taken into consideration is where the risk of the contract is based, which in most cases would be the country of purchase. It is generally assumed that a policyholder is domiciled in the same jurisdiction as the insurer. There are implicit biases in this assumption, such as a policyholder must be sophisticated in order to be able to make a cross-border purchase, and potentially do so facing a language barrier. Many countries ban cross-border solicitation of residents, but not transactions abroad that are initiated by the purchaser. The underlying assumption is *caveat emptor* in this case, including the possibility of not being able to benefit from consumer protection (including coverage by any policyholder protection scheme) in the country where the

contract is concluded. However, this does not exclude the possibility of non-residents being treated equally with residents, especially when the risk resides in the purchasing country. However, the administration of policyholder protection schemes may be more complex when non-residents are involved.

***B. Treatment of branches***

As for, primarily, establishment, the coverage of policyholder protection schemes can be classified into home state principle and host state principle. The home state principle applies when the policyholder protection scheme covers policies issued by a domestic insurer that participates in the scheme, including its branches abroad. In many EU countries, the host states supplement shortcomings in protection of the home state. In turn, countries with a home state principle do not require incoming firms to participate in the scheme. Host state principle applies when all insurers operating in the country, regardless of where they are headquartered, are required to participate in the scheme. The choice of home or host state principle may reflect the insolvency framework and who is protected.

Countries with a home state principle are Denmark, France, Germany, Ireland, Israel, and Spain. Foreign resident policyholders or foreign branches of insurance undertakings headquartered in these countries would be protected by the compensation scheme in the home countries. In Spain, if the insurance undertaking of a branch established in Spain is headquartered outside the EU/EEA, the policyholders of this branch are protected by the Spanish compensation scheme.

Australia, Austria, Belgium, Estonia, Finland, Greece, Italy, Japan, Korea, Norway, United Kingdom and United States have a host country principle, whereby, all insurers regardless of their origin are required to participate in the compensation scheme. Foreign policyholders would not be covered in Estonia, in principle, as the scheme only covers compulsory funded pension annuities. Otherwise, the treatment of foreign policyholders in these schemes has yet to be examined.

It is interesting to note that most non-EU countries have a host country principle, while many EU countries have a home state principle.[51] Some do not permit the participation of branches (Germany). Ireland does not protect incoming branches, but requires branches to contribute if there is a failure. Coverage is not even across the EU, which could lead to situations where there is uneven protection and burden in an insurance insolvency. Countries with large insurance groups, if not subject to home state principle, may find uneven protection of their products in each country. There could also be situations in which policyholders resident in a country without a compensation scheme would prefer to purchase a policy from a country, on a cross-border basis, that does provide protection, although this would also assume that the consumer is a well informed one.

Unless all countries that engage in cross-border insurance transactions have a compensation scheme, a host country principle may provide better protection and certainty for policyholders in general. United Kingdom and Greek system are based on the location of the risk. This is a useful way to cut across the various factors, such as origin of insurer and location of policyholder, to enable the breadth of protection to be clear.

What is clear is that there is a great deal of uncertainty with regards to the treatment of non-residents, and branches. Policyholders who transact with overseas insurers or branches should be given information that provides greater clarity on their position in an insolvency.

**Box 9. Lessons from banking and occupational pension sector: cross-border and international aspects**

*Treatment of non-resident persons*

For deposit insurance, treatment of non-resident is the same as residents in most countries. However, some EU member states do not treat non-EU, non-residents the same (Ireland). The treatment of non-residents is related to whether cross-border transactions are permitted, but there is much uncertainty in the treatment of non-resident and would merit further examination.

The majority of non-resident investors are likely to be corporate or sophisticated investors, although retail traders and investors[52] are increasing, and given the current trend of low interest rate in OECD member countries, cross-border transactions may well increase in the search for yield. If cross-border transactions are carried out legally, through licensed brokers, the expectation would be for investors to be treated equally with resident investors. Thus, the treatment of non-residents should be clarified to ensure certainty of the transactions that take place.

*Treatment of foreign currency denominated transactions*

Many countries' deposit insurance covers foreign currency denominated deposits, but some do not (Austria, Belgium, Chile, Czech Republic, Germany, Greece, Hungary, Iceland, Japan). Foreign currency denominated deposits may be popular in countries which experienced inflation and instability in the past, or where there are strong economic linkages with other economies. Nevertheless, coverage of foreign currency denominated deposit imposes foreign exchange risk on the deposit insurance.

There are unlikely to be many insurance or occupational pension products which are sold in foreign denominations, unless for corporate clients, in which case, protection would not be warranted.

*Treatment of branches*

The coverage of branches is not uniform for deposit insurance. Some countries do not allow the participation of foreign branches (Japan). Deposit insurance in the EU is dictated by the Deposit Guarantee Schemes Directive (DGSD) which adopts a home state principle (see Box 8). Home state principle is feasible in a situation in which coverage is universal and similar. For EU and EEA branches, protection is provided only where the home country protection is lower. Home state principle is embedded in the passport regime of the banking sector, in which the home country licenses and supervises financial institutions. However, the recent crisis has brought to light the difficulties of realising sufficient coverage under the home state principle, as was the case for United Kingdom and German depositors with Icelandic banks. The United Kingdom has pointed out the inadequacy of the home state approach in this regard, recommending peer reviews and greater host country powers for oversight (Financial Services Authority, 2009).

Given that policyholder protection schemes are far from universal among OECD member states, host state principles may be a more realistic approach to ensure that resident policyholders are protected where compensation schemes exist. The EU's white paper proposes the creation of a policyholder protection scheme in each member state. This would create greater uniformity for policyholders in the EU, but discussion is required on a broader spectrum of countries as many non-EU countries would need to be taken into account.

**Box 10. Approaches to cross-border issues in financial sectors**

As financial institutions expand, they naturally look overseas for growth potential. While the treatment of subsidiaries, which are always treated as domestic corporations, is clear, the treatment of branches is diverse. Branches are often not required to have a minimum capital requirement, to which subsidiaries are subject. Thus, when financial difficulties occur, reliance must be placed on the insurer headquartered abroad, which may not necessarily provide necessary support to the branch, increasing the likelihood that the branch will not have sufficient funds for payment.

Another issue would be if funds of overseas establishments are used to fund financial difficulties of the headquarter financial institution.[53] If this is a possibility, the treatment of establishments may need closer examination by compensation schemes. Branches may be required to establish some capital requirement/solvency requirements independently, or subsidiaries may need to limit the funds that can be transferred to their headquarter.

Non-residents can now access financial products via the internet, which has enabled diverse approaches to investments, although the treatment of non-residents appears to be diverse among the different sectors. Deposit insurance generally treats non-residents similar to residents. For insurance, the jurisdiction of the risk is where the product is expected to be purchased. Thus, non-residency is not usually assumed as products from other jurisdictions are less likely to be offered for retail purposes, unless in the EU.

For policyholder protection schemes, the location of the risk could be a strong determining factor for cross-border issues. This could become a clearer indicator of the level of protection in addition to the originating country of the insurer or country of domicile of policyholders.

A closer look at the overall resolution scheme to determine the manner in which cross-border transactions and branches are treated may be necessary. In essence, clarity and predictability should be provided, so that at least nationally, the position of foreign providers should be clear for residents.

## VI. Conclusion

The rationale for establishing a policyholder protection scheme is often based on consumer losses experienced as a result of insurer(s) failures. Failure of an insurer is best avoided by having a strong prudential framework. However, when this first line of defence is breached, a policyholder protection scheme can protect policyholders against the detrimental effects of an insurer failure, particularly for those who are most vulnerable and/or for those insurance lines or products with an element of social protection.

In addition to the main objective of protecting consumers, a policyholder protection scheme promotes public confidence in the insurance industry (thereby helping to prevent possible contagion within the industry in the context of any insurer insolvencies), by providing certainty of payment to retail policyholders and clarifying the amount and timing of compensation should an insurer to fail.

The protection provided by a policyholder protection scheme can potentially lead to moral hazard, distorting the incentive structure of financial institutions operating in the field. Moral hazard can be limited through such mechanism as maximum coverage level and premium settings. Many of the policyholder protection schemes have unlimited coverage, which is in contrast to deposit insurance where caps are being re-introduced following extraordinary measures enacted during the crisis to provide unlimited protection. The rationale for the widespread adoption of unlimited protection among policyholder protection schemes is not clear, unless the underlying assumption is that transfers of portfolio will always take place or that insolvency costs largely reside with policyholders through co-insurance mechanisms. The concerns raised regarding moral hazard in respect of policyholder protection schemes are difficult to reconcile with the unlimited coverage being maintained in those schemes that have been established by the insurance industry.

Risk-weighted levies are being increasingly used for deposit insurance, and they are used by most occupational pension protection schemes. Only a few policyholder protection schemes apply risk-weighted levies. Given that risk-weighting of levies may provide a tool to limit moral hazard, further investigation would shed light on whether they are feasible and, if so, on appropriate approaches. The chosen approach would have to be sufficiently robust to address incentives to limit moral hazard, as well as being sufficiently generic for all applicable insurers.

Consideration should be given to tailoring policyholder protection schemes according to the lines being protected. The insurance sector has a more diverse portfolio of products than other sectors, so that having uniform coverage and funding arrangements for all lines may not reflect the nature of the risks and social factors of each line adequately. Features such as the social element, length of the contract, and whether it has a saving element should be taken into account.

Policyholder protection schemes are funded by *ex ante* and/or *ex post* mechanisms. However, looking at the experience of occupational pension protection schemes and deposit insurance, it is important that funding has a certain degree of flexibility to enable sufficient and sustainable funding for future or past events. Clarity of funding rules is essential for compensation schemes to be accountable for the funds they collect, and to be able to request any additional contributions.

*Ex ante* funding can, theoretically, align insurer incentives (by placing a cost on the insolvency "put" option) and introduce useful counter-cyclicality to funding pressures. *Ex post* funding, by contrast, does not lock in insurer funds with attendant opportunity costs.

Depending on the role and function of policyholder protection schemes, they may potentially introduce a competitive (dis)advantage to the lines protected in comparison to the protection provided for products in other financial sectors. This competitive aspect is an important consideration given the similarities in a number of products provided across different sectors. This aspect is also relevant from a cross-border perspective, given that policyholders may choose to purchase insurance policies abroad given potential coverage of non-residents.

A key result from this investigation is the observation that there is a lack of clarity in many aspects of existing policyholder protection schemes. While information geared towards policyholders, with regard to the level of protection, is more readily available, information on the governance structure, operational arrangements, and cross-border aspects of these schemes are less readily available in many countries.

There is a lack of information on the extent and nature of cross-border transactions in insurance, making it difficult to assess the impact of different country approaches to the treatment of non-resident policyholders within policyholder protection schemes. This is still the case even for EU countries where there is a greater likelihood of cross-border transactions taking place. There is a need for further investigation of policyholder protection schemes in order to verify the treatment of non-residents.

As for the intervention role of policyholder protection schemes, or compensation schemes in general, greater attention should be paid to the overall resolution framework, including the creation of a seamless and integrated process. Compensation schemes could be used as a catalyst for prompting failing institutions to be closed instead of bailed out. Also, with a growing reluctance among the public to finance bail outs of financial institutions, compensation schemes can provide a predictable, supportive role within an already complex process surrounding failures.

## NOTES

[1] While the focus of this paper is on policyholder protection schemes, some countries have alternative mechanisms, such as tied assets, that share the same objective of protecting policyholders in an insolvency context.

[2] The objective of the White Paper was to promote policy discussion on whether insurance guarantee schemes should be established in member states and, if so, what form they should take, in the context of a possible directive. Given the active cross-border insurance service provision in the EU, there is the possibility of uneven protection for policyholders in different EU countries. The need to limit taxpayer exposure to the costs of an insurer failure was also an important motivating consideration.

[3] The Basel Committee on Banking Supervision (2010) was issued in response to the G20 Leaders call for regulators and other relevant authorities to strengthen cooperation on crisis prevention, management, and resolution and review resolution regimes and bankruptcy laws in light of recent experience to ensure that they permit an orderly resolution of large complex cross-border financial institutions.

[4] Only for occupational pension plans that have defined benefits.

[5] Strictly speaking, policyholder protection schemes have an explicit, guaranteed amount of coverage; however, for discussion purposes, this paper includes those countries with other forms of protection (*e.g.*, tied assets, priority status in insolvency, guarantees dependent on actuarial calculations or technical reserves) that, while providing enhanced policyholder protection, do not contain an explicit guaranteed amount (*e.g.,* Austria, Japan life insurance, Spain, and Switzerland).

[6] Some countries have a payout system for motor accidents which involve a non-insured vehicle or when the offender is unknown. These are not policyholder protection schemes and are not considered in this paper as they do not protect policyholders when an insurer becomes insolvent.

[7] The paybox function of a compensation scheme relates to the process of paying out claims.

[8] Depending on the resolution procedure for insurers, payment to policyholders may be made promptly upon the failure, or after the portfolio has been transferred to the scheme (in which payment will be made in accordance to the relevant contract provisions).

[9] In the case of the United States, insurers are incorporated and regulated at the state level and subject to state insolvency laws. Each state has its own compensation scheme for life and non-life respectively, with each state's legislature establishing the coverage for the residents of its state by adapting national model life/health and property/casualty guaranty association statutes to local conditions and policy priorities. The model statutes were promulgated by the National Association of Insurance Commissioners and the National Conference of Insurance Legislators. The analysis in this paper for the United States is based on the model statutes and not based on any individual state statutes, although examples of coverage in selected states are described in Section III.B.a) Coverage level.

[10] Some of the policyholder protection schemes that protect the entire insurance market or all of the life or non-life sector also include the guarantee of specific insurance lines; for the sake of simplicity, they are not listed here in this paragraph.

[11] For MTPL schemes, information is generally provided only in the Annexes, unless otherwise specific information was provided.

[12] The EC's directive 84/5/EC of 30 December 1983 requires the establishment of motor guaranty funds in member countries; 22 of the 27 member states have established a motor guarantee scheme which provides compensation for accidents where the owners of vehicles are unidentified or when the vehicle owner failed to purchase liability insurance, and also compensates motor accident victims when an insurer fails.

[13] In the U.S., although group insurance is sold through employers or associations/societies, it is covered by policyholder protection schemes to the extent that actual coverage is provided for individuals within the group plan.

[14] See section III.B.c) Coverage and co-insurance: diversity of approaches for further discussion on line-specific considerations.

[15] In the context of private pension funds, some countries, such as the Netherlands, use strong funding rules to ensure a high level of beneficiary payout if the sponsor fails, instead of establishing an occupational pension protection scheme.

[16] Some funds may also compensate the losses sustained by the beneficiaries of compulsory insurance when no insurance protection is available for reasons other than the insolvency of the relevant insurer.

[17] In Grace, Klein and Phillips (2003), the net cost to guaranty funds of failed property and liability insurers in the US for the period of 1986-1998 to be on average 109 percent of the insurers' pre-insolvency assets, with a median cost of 54 percent.

However, testimony by NOLHGA states that the average recovery rate for policyholders of failed life insurers (from estate assets and guaranty association contributions) exceeds 96 percent for life claims, and 94 percent for annuity claims, suggesting low levels of loss for policyholders (and thus low net costs to guaranty funds). This data is based on multi-state life insurer liquidations in which NOLHGA was involved (NOLHGA, 2011).

[18] Policyholders usually cannot withdraw money from insurance companies at will or only at a cost (cancellation fees or contractual exclusion of contract termination). Liabilities towards policyholders are covered by technical reserves.

[19] The IAIS paper, in assessing systemic risk in the insurance sector, reviews the criteria established by the Financial Stability Board, which identifies financial sector interconnectedness (*e.g.*, through financial groups) as a potential source of systemic risk.

[20] Deposit insurance is not explicit, or is "implicit," when there is no outright legislative or regulatory decision on the establishment of a compensation scheme or payouts, but when there is an expectation of compensation when financial institutions face difficulty. Israel does not have an explicit system although there are plans to establish an explicit, limited deposit insurance system. The Governor of the Bank of Israel is empowered to guarantee deposits upon receiving the government's approval (OECD, 2011). New Zealand has an optional deposit insurance system where deposit taking institutions in New Zealand can opt for a Crown Guarantee (deposit insurance) which is granted when "necessary or expedient in the public interest." The key "public interest" factors when considering the provision of a Crown Guarantee are: a) the maintenance of public confidence in New Zealand's financial system; and b) maintaining the confidence of general public depositors in New Zealand financial institutions. China does not have an explicit deposit insurance scheme (its establishment is currently being discussed by the Chinese Banking Regulatory Authority). However, given the dominant market share of the four state-owned banks, it is assumed that there is an implicit guarantee of deposits by the state.

[21] The Spanish scheme only charges premiums to non-life policyholders for historical reasons, in that only non-life insurers have been insolvent in the recent past decades.

[22] See section III.C. Other measures on countries that prohibit insurers from advertising the availability of protection at the point of sale.

[23] This consideration is only applicable to retail consumers, and not corporate/wholesale consumers who are expected to have sufficient information and understanding of an insurer's operations and financial condition.

[24] If banks only have insured depositors as their debtholders, the introduction of deposit insurance would lead to less monitoring of the bank by depositors, creating the risk of moral hazard. On the other hand, if a bank has non-insured creditors, such as sub-ordinated debtholders, as well, monitoring by these entities will introduce market discipline on banks.

[25] Risk-based premiums, which are by definition *ex ante*, paid to a policyholder protection scheme, represent the price paid for a put option on the insurer's assets with a strike price equal to the value of the insurance policies. An insurer can effectively increase the value of this option by taking on more risk. An article by Lee, Mayers and Smith (1997) found that around the time of guaranty-fund enactments, insurers increased their asset portfolio risk by increasing their equity holding relative to their bond holdings.

See section III.B.e) Risk-weighted contributions for a discussion on risk-based premiums.

[26] Cummins claimed that "little attention [has been] paid to the impact the funds might have on firm incentives, regulatory costs, or the risk-return characteristics of insurance markets."

[27] See Annex I for background information on coverage levels.

[28] For Germany, this is due to portfolio transfers.

[29] See section III.B.c) Coverage and co-insurance: diversity of approaches for a detailed discussion on insurance policy features.

[30] Expected policyholder losses would thus largely remain unchanged (*i.e.,* 100 percent minus the expected recovery rate for policyholders), although a policyholder protection scheme could be expected to make significant efforts, for reputational reasons, to ensure a maximum recovery for policyholders.

[31] The European Commission, in mid-October 2008, recommended abolishing co-insurance arrangements (the Economic and Monetary Affairs Committee of the European parliament backed that proposal in December 2008). The United Kingdom's co-insurance arrangements, which did not succeed in deterring bank runs, was an important backdrop to this development.

[32] There are a number of other disincentives against cancellation of an insurance contract, including the loss of tax benefits and an inability to replace the contract under the same conditions.

[33] An example of this is the "run" on the Belgian insurer Ethias, which had marketed insurance products as economically comparable to a savings product (European Commission, 2009).

[34] The application of California's 80% co-insurance has the effect of reducing coverage below the NAIC levels of coverage until claims reach 125% of the NAIC limit. For example, for annuity contracts with claims of USD312,500 or more, the application of the 80% coinsurance provision results in the same level of coverage as the NAIC limit (similarly, for life insurance death benefit claims of USD375,000 or more and for life insurance cash value claims of USD125,000 or more).

[35] Japan's life insurers, in the past, often offered an expected level of interest rates when selling a product, instead of offering guaranteed rates; consequently, there was a strong expectation among policyholders that the planned interest rates would be met in accordance with policyholders' expectations.

[36] The Life Insurance Policyholder Protection Scheme of Japan's Q&A section provides diagrams outlining the manner in which each life insurance product accumulates its technical reserves over the years.

[37] See Annex II for background information on funding methods.

[38] *Ex ante* funding is when the funds to cover a payout are collected in advance of such an event. *Ex post* funding is when funds for a payout are collected after a financial institution fails.

[39] Canada's life insurance policyholder protection scheme, Assuris, maintains a Liquidity Fund of at least $100 (currently $120 million) which is the source of funds for the immediate costs of an insolvency. However, the final costs of resolving a life insurance insolvency is levied through an ex post special assessment. The administrative costs of Assuris are generally paid out of the interest accrued on the Liquidity Fund.

Canada's property and casualty insurance policyholder protection scheme, PACICC, maintains a Compensation Fund of approximately $46 million (as of January 2012) that is designed to provide for a permanent source of immediate funds in the event of any new insolvencies in the future to when funds are collected from a general assessment. However, the final costs of liquidating a failed member is levied through an ex post general assessment. PACICC's operating costs are funded by an annual administrative assessment.

[40] In practice, the impact of multiple failures (and the resulting cost to the policyholder protection scheme) can be reduced when significant assets remain in the insolvent companies and policy-level claims receive priority over other claims. Payout is typically spread out over a number of years for insurance obligations with a long-term nature.

[41] The initial target fund size is based on extensive actuarial modelling using data and risk profile of insurance business in Hong Kong, plus relevant assumptions, among other things, economic conditions and interest rates. The assumptions include: a confidence level of 99%, asset recovery of 50-90% for life insurers, and 40-80% for non-life insurers, default rate of insurers based on the credit rating assigned to them by major rating agencies, investment of the fund in low-risk vehicles, low to medium growth rate in the insurance sector, inflation of 2% per annum, running cost amounting to 0.2% of initial target fund size, and lending rate of 3%.

[42] However, New York's fund is funded by pre-assessments every year. If the insured losses increase, the New York guarantee fund can increase assessments. However, it does not have statutory access to the state treasury to make up shortfalls.

[43] This was the consideration made in determining the funding scheme in Hong Kong's to be established policyholder protection scheme. See previous section, *Ex ante* funding.

[44] Derivation of the policyholder protection schemes' premium based on the standard or internal models used for calculation of the risk-based capital requirements is described as one possible solution for adjusting the premiums paid by insurers to the policyholder protection scheme to the risks they are bearing.

[45] See footnote 44 for consideration towards value at risk models.

[46] The premiums of Germany's policyholder protection scheme for life insurance is risk adjusted using:
-- the amount of net reserves for unit-linked or other insurance contracts, for which the risk is borne by the policyholder rather than the insurer, are not counted in full but only by one-quarter, and
-- the individual firm's risk adjustment depends on the firm's equity capital relative to its solvency

margin. Using this metric, firms are ranked from lowest risk to high risk and classified into three categories. For firms in category 1 (low risk), a risk factor of 0.75 is applied to the net reserves; for firms in category 3 (high risk), the risk factor is 1.25; and for firms in category 2 (medium), the risk factor is adjusted from firm to firm on a linear basis to range between 0.75 and 1.25.

[47] In Estonia, while policyholders will be provided with information on the policyholder protection scheme prior to concluding their contract, it cannot be used for advertising purposes.

[48] Not all US state guaranty funds have the prohibition of advertising the availability of guaranty funds at the point of sale. Furthermore, it should be noted that some OECD countries, in fact, require the disclosure of the existence of a policyholder protection scheme at the point of sale.

[49] See Annex III for background information on intervention functions of compensation schemes.

[50] See Annex IV for background information on international issues of compensation schemes.

[51] See Annex IV. EU states usually follow a home country principle, akin to deposit insurance coverage.

[52] While still a small proportion, direct access brokers have enabled retail day trading to take place. This has been noticeable in the foreign exchange carry trade, for which Japan introduced a limitation on leverage for foreign exchange carry trade in August 2010 that will eventually be brought down to 25 times the deposited amount for OTC and exchange traded transactions, as a result of the losses being experienced by retail investors.

[53] This is not always permitted by national law as acknowledged in the European Commission's consultation paper on bank resolution (European Commission, 2011).

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## ANNEX I: MAXIMUM COVERAGE LEVELS AND CO-INSURANCE FOR COUNTRIES WITH SCHEMES[1]

(It should be noted that the below maximum coverage levels are the highest coverage level within each scheme, each scheme is likely to have different maximum coverage levels for different products)

| | *INSURANCE SCHEMES* | | | *OCCUPATIONAL PENSION* |
|---|---|---|---|---|
| | **Line** | **Maximum coverage (USD)** | **Co-insurance** | **Maximum coverage (USD)** |
| **Australia** | Non-life | Unlimited (to be limited to 20 bln in 2011) | 100% | -- |
| **Austria** | Life | Tied assets, unlimited (maximum level will depend on actuarial calculations) | | |
| | Non-life (health and accident) | Tied assets, unlimited (maximum level will depend on actuarial calculations.) | | |
| **Belgium** | Non-life (limited lines) | Unlimited | 100% | -- |
| **Canada** | Life | 200,000 | 85% (after minimum full protection level) | 12,000 (Ontario) |
| | Non-life | 300,000 for property claims<br>250,000 for other lines | 100% | |
| **Denmark** | Non-life | Unlimited | 100% | -- |
| **Estonia** | Life (annuity) | Unlimited | 90% (after minimum full protection level) | -- |
| **Finland** | Non-life | Unlimited | 100% | -- |
| **France** | Life | 125,000 (death/invalidity) otherwise 98,000 | 100% | -- |
| | Non-life | Unlimited | 90% (policyholders) and 100% (TP claimants) | |
| **Germany** | Life | Portfolio transfer | | 94,500euros in 2012 |
| | Non-life (private health and MTPL) | Portfolio transfer (private health), unlimited (MTPL) | | |
| **Greece** | Life | 82,000 for death and disability, 41,000 for life/annuities/ pensions | Funding premiums are shared between the insurer (50%) and policyholder (50%) | -- |
| **Ireland** | Non-life | 1,150,000 | 65% | -- |
| **Israel** | Non-life (motor) | Unlimited | 100% | -- |
| **Italy** | Non-life (hunting) | For personal damage: 540,000, for material damage: 168,000 | 100% | -- |
| **Japan** | Life | Unlimited | 90% of technical reserves with some exceptions | 30% of substitutional component and half of any benefits in excess of this amount. |
| | Non-life | Unlimited | 100% for compulsory MTPL, earthquake, motor, fire and other non-casualty. 90% for casualty and investment-link or saving insurance. | |
| **Korea** | All lines | 45,000 | -- | -- |
| **Norway** | Non-life | 3,440,000 | Residential and compulsory unlimited, 90% otherwise | -- |
| **Poland** | Life | Life: 42,000 | 50% | -- |
| | Non-life (limited lines) | Motor and farmers' TPL: 2.1m; personal injuries: 420,000; material damages, farm buildings: unlimited; professional TPL: 42,000. | Motor and farmers' TPL: 100%, farm building: 100%, professional TPL: 50% | |
| **Portugal** | Non-life (Motor TPL and worker accident) | Unlimited | -- | -- |
| **Spain** | All lines | The coverage level is dependent on the financial situation of the insolvent insurer, and improvement measures. | | |

| | | | | |
|---|---|---|---|---|
| **Sweden** | -- | | | Full benefits |
| **Switzerland** | Non-life (motor TPL) | 1,113,000 | | 100% of government-mandated minimum benefits; additional benefits subject to salary cap. |
| | All lines | Tied assets, unlimited but tied to technical reserves which are based on actuarial calculations. | | |
| **Turkey** | Non-life | Bodily injuries: 140,000 | -- | -- |
| **United Kingdom** | All lines | Compulsory insurance | 100% | Pensioners, survivor and ill health pension covered 100%. Under pensionable age, 90% with incremental annual caps (at 65, USD52,000) |
| | | Non-compulsory insurance | 90% | |
| **United States**[2] | Life | 500,000 in major medical, basic hospital, medical and surgical insurance; 300,000 for disability insurance; 300,000 for long term care insurance; 100,000 for other health; 250,000 for present value of annuity benefit; 300,000 in life insurance death benefits; 100,000 in net cash surrender or net withdrawal value for life insurance | Coverage depends on the state. | Vested benefits up to USD44,114 for an age 62 retiree (coverage provided by Pension Benefit Guaranty Corp.) |
| | Non-life | Full amount of claim under worker's compensation coverage; $300,000 for all other claims | Coverage depends on the state. | |

1. Information on MTPL protection in EU member states that were included in Table 1, have not been covered in the Annexes unless the member country has provided information, as this is based on information from the Council of Bureaux which do not provide details on governance arrangements. See <http://www.cobx.org/modules/national_bodies/>.
2. In the case of the United States, given that each state has a compensation scheme for life/health and property/casualty, the data related to insurance scheme coverage is based on information from the National Conference of Insurance Guaranty Funds and the National Organization of Life and Health Insurance Guaranty Associations. The coverage amounts listed here are the most representative amounts enacted in the states (although some states may offer more coverage) and do not necessarily reflect NAIC recommended coverage amounts.
3. For deposit insurance system, see Figure 2 of Schich (2011).

**Source:** OECD Secretariat, EU (2007), and Stewart (2007).

# ANNEX II: FUNDING OF SCHEMES FOR SELECTED COUNTRIES WITH SCHEMES

| | ***INSURANCE SCHEMES*** | | | ***BANKING SCHEMES*** | ***OCCUPATIONAL PENSION SCHEMES*** | |
|---|---|---|---|---|---|---|
| | **Funding** | **Calculation of contributions** | **Risk weighting** | **Risk weighting** | **Funding** | **Calculation of contributions** |
| **Australia** | *Non-life*: Ex post | Based on asset values of regulated insurers. | No | No | -- | |
| | *Non-life (motor):* Ex ante and post | Number and types of cars insured. | No | | | |
| **Austria** | Life: Earmarked assets | | | No | -- | |
| | Non-life (specific lines): Earmarked assets<br>Non-life (motor): *Ex ante* and *ex post* | | | | | |
| **Belgium** | *Non-life (motor):* initial deposit and ex post. | Ex ante: fixed entry fee, ex post: not specified. | No. | No | -- | |
| **Canada** | *Life:* Ex ante and ex post elements | A Liquidity Fund is maintained for immediate liquidity needs, although the final costs of liquidation is levied through an *ex post* special assessment. | | Yes | Ex ante (in deficit) | Number of participants and underfunded amount. |
| | *Non-life:* Ex ante and ex post elements | A Compensation Fund is maintained for immediate liquidity needs, although the final costs of liquidation is levied through an *ex post* general assessment. | No. | | | |
| **Denmark** | *Non-life:* Ex ante (power to levy additional contributions) | Based on number of policies. | No. | No | -- | |
| **Estonia** | *Life (annuity):* Ex ante | Maximum of 0.5% of premiums.( currently Estonia is in a transition period, making the maximum of levies 0.05% until 2019). | No | No | -- | |
| **Finland** | *Non-life (mandatory*) | Ex post levies are allocated on the basis of gross premiums for both schemes. | | Yes, 0.05% to 0.3% of insured deposits | -- | |
| **France** | *Life:* ex ante cash contributions and ex post additional payment. | 0.05% of mathematical provisions of which half is contributed to the scheme, and half as a guarantee in the insurers' books. | No. | No | -- | |
| | *Non-life:* Ex ante and additional contributions | Firm contribution only one source of funding. 1% of costs concerning insolvency cases. | No. | | | |
| **Germany** | *Life:* Ex ante and additional contributions | 0.02% of net reserves until annual target reached. | Yes, firms ranked by financial capacity (equity relative to solvency margin), and contributions weighted. | Yes. | Ex post | Proportion of liabilities and reflecting previous year. |
| | *Non-life (private health):* Ex post | Ex post percentage of net reserves | Envisaged. | | | |
| | *Non-life (MTPL):* Ex post | Ex post: percentage of total premium income | No. | | | |
| **Greece** | Life: *Ex ante* | Up to 1.5% of annual gross premium (shared between insurer and policyholder)<br>Government provided 1m€ start up fund. | | No | -- | |
| **Hungary** | -- | | | Yes, risky banks can be asked to contribute more. | -- | |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Ireland** | *Non-life:* Ex post | Based of premium income. | No | No | -- | |
| **Israel** | *Non-life (motor) :* Ex ante | 1% of gross premiums | No. | | -- | |
| **Italy** | *Non-life (hunting) :* Ex ante | 5% of premiums (0.5€ per policy). | No. | Yes | -- | |
| **Japan** | *Life:* Ex ante | Annual levy and additional support by government if fund is depleted. Annual levy is 0.197% of premiums. | No. | No | Ex ante | Premiums related to size of company, size of benefit and risk adjusted for level of underfunding. Premium = Member * (160~285yen) + maximum coverage * 0.008% + underfunded liabilities * 0.11%) |
| | *Non-life:* Ex ante | Annual levy and additional support by government if fund is depleted. Annual levy is 0.038% of premiums. | No. | | | |
| **Korea** | *Sector-wide:* Ex ante | One off contribution of 0.1% of total equity, and 0.15% of premium income. If reserves do not reach a presubscribed level, an additional levy is imposed. | A special contribution of up to 0.1% of premium incomes can be levied if specific reserve ratios are not met. | No | -- | |
| **NZ** | -- | | | Yes, liability size and credit rating. Fees charged on the amount of debt securities guaranteed, on the type of institution and its credit rating. | -- | |
| **Norway** | *Non-life:* Ex ante | 1.5% of gross premium income | No. | No | -- | |
| **Poland** | *Life:* Ex post | Contributions are allocated on the basis of gross premiums. | No. | No | -- | |
| | *Non-life (specific lines):* Motor and farmers' TPL: ex ante with power to raise additional contributions<br>Farming and professional TPL: ex post | All contributions based on gross premiums. For motor and farmers' TPL: levy rate was 1%, of which 0.8% used to meet current costs and 0.2% to accumulate in fund designated for preventative action. | No. | | | |
| **Portugal** | *Non-life* (MTPL): Ex ante<br>*Non-life* (workers' accident): Ex ante | 0.15% of total amount of wages insured charged to policyholders.<br>0.85% of technical reserves | No. | Yes, average solvency ratio, 0.1% to 0.2%of insured deposits, and more in case of an emergency. | -- | |
| **Spain** | Sector wide: ex ante | Policyholders of non-life premiums contribute to the funding.<br>0, 15% of non-life insurance premiums. | No. | | | |
| **Sweden** | -- | | | Yes, depending on capital adequacy ratio, 0.06% to 0.14 % of insured deposits. | Ex ante | Charge is percentage of liabilities, collateral required if insolvency risk deemed high. |
| **Switzerland** | Life: Earmarked assets | | | No. | Ex ante | Charge based on liabilities. |
| | Non-life (specific lines): Earmarked assets<br>Non-life (motor) : *Ex ante* and *ex post* | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Turkey** | *Non-life :* Ex ante | 1% of net premiums from insurers + 2% of net premiums from policyholders | | Yes, 1.0% to 1.2% of insured savings deposits | | |
| **United Kingdom** | *Sector-wide:* Ex post (levies raised for costs expected during next 12 months) | Allocated to firms according to relevant net premium income on life or non-life respectively. | No. | No | Ex ante | An initial levy and then a risk based levy is made. Risk based levy must collect at least 80% of total. |
| **United States** | *Life:* Ex post | The levy (assessment) is calculated according to their marketshare with a cap of 2% of annual average premiums. | No. | Yes, 0.07% to 0.775% of domestic deposits. | Ex ante (in deficit) | Charge based on number of participants and underfunded amount. Premium=member numbers*19USD+9USD for every underfunded 1000USD. |
| | *Non-life:* Ex post | The levy (assessment) is calculated according to their marketshare with a cap of 2% of annual average premiums. | | | | |

**Note:** In the case of the United States, given that each state has a compensation scheme for life/health and property/casualty, the data related to insurance scheme coverage is based on information of the National Conference of Insurance Guaranty Funds and the National Organization of Life and Health Insurance Guaranty Associations**.**

**Source:** OECD Secretariat, EU (2007), International Association of Deposit Insurers and Stewart (2007).

## ANNEX III: INTERVENTION POWERS OF COMPENSATION SCHEMES FOR SELECTED COUNTRIES WITH SCHEMES

| | *INSURANCE* --Non-life | *Life* | *BANKING* |
|---|---|---|---|
| **Australia** | Paybox, with winding up led by a judicial decision. | -- | Paybox |
| **Austria** | Paybox | Paybox | Paybox |
| **Belgium** | CBFA declares insolvency. Payment and portfolio transfer. | -- | Paybox |
| **Canada** | Ability to assist in the transfer of policies to another insurer. | Assistance in transferring the portfolio. | CDIC can intervene and close banks, with powers to take legal action against bank directors and officials. |
| **Denmark** | Court declaration of bankruptcy. Paybox only. | -- | Paybox |
| **Estonia** | | Transfer of compulsory funded pension annuities portfolio. | Paybox |
| **Finland** | Payment of compensation or transfer of portfolio. | Payment of compensation or transfer of portfolio. | Paybox |
| **France** | Payment of compensation and/or transfer of portfolio. | Payment of compensation and/or transfer of portfolio. | Paybox |
| **Germany** | Private health: continuation of contracts. Statutory scheme secures transfer of portfolio to another insurer.<br>MTPL: payment of compensation. | Continuation of contracts. Statutory scheme takes over portfolio and continues contracts until termination (or sale to another insurer). | Paybox |
| **Greece** | ---- | Payment of compensation and/or transfer of portfolio.. | Paybox |
| **Ireland** | -- | Formal liquidation or administration commences intervention. Compensation and supporting administration of a failed insurer on a going-concern basis. | Paybox |
| **Israel** | The Fund becomes a creditor of a liquidated insurer in the case of liquidation of affected insurer. | -- | The Governor of the Bank of Israel may decide to guarantee in whole or in part (1) deposits of a bank in which the Bank of Israel has intervened or (2) other classes of bank liabilities. |
| **Italy** | Paybox. | -- | Paybox |
| **Japan** | The corporation can take over any contracts that are not subject to a takeover and provide lending for temporary liquidity shortages. | The corporation can provide capital support to insurer taking over. | DICJ can provide capital assistance and has full intervention powers. |
| **Korea** | KDIC can receive requests from insured financial institutions for funding when the Financial Supervisory Commission has deemed it insolvent. | | Capital assistance and has full intervention powers. |
| **Mexico** | -- | -- | Power to get information directly from the banks. Resolution methods for bank liquidation: Deposit payoff, Purchase and assumption transaction (P&A), and bridge bank. Open Bank Assistance. |

| Norway | Paybox. | -- | Paybox |
|---|---|---|---|
| **Poland** | Paybox, facilitation of portfolio transfer, and granting repayable loans to insurer that is taking over. | Paybox. | Financial assistance to banks, supporting mergers of banks, and collect and analyze information on entities covered by the guarantee scheme. |
| **Portugal** | Paybox | -- | Co-operate, on a temporary basis, to restore the solvency and liquidity conditions of member institutions, within a financial reorganisation plan conducted by the Banco de Portugal |
| **Spain** | A declaration by the Ministry of Economy and Finance prompts intervention into an insolvent insurer. Consorcio de Compensación de Seguros is in charge of the winding-up proceeding, including portfolio transfers, and payouts to policyholders. | | |
| **Switzerland** | Paybox | Paybox | |
| **Turkey** | Paybox | -- | Paybox |
| **United Kingdom** | FSCS determines an insurer is in default. FSFS is primarily a paybox, but for long term contracts continuation is secured. | | Paybox |
| **United States** | State commissioner requests court for the liquidation of the insurer. Court liquidation order provides the trigger for guaranty funds to step in and facilitate the timely payment of covered claims and/or transfer portfolio to a solvent insurance carrier. | State commissioner requests court for the liquidation of the insurer. Court liquidation order provides the trigger for guaranty funds to step in and facilitate the timely payment of covered claims and/or transfer portfolio to a solvent insurance carrier.. | Full intervention and examination powers. |
| **Russian Fed.** | -- | -- | Full intervention and supervisory powers. |
| **Indonesia** | -- | -- | Resolution of failing banks |
| **Brazil** | | -- | Paybox with compensation to creditors |

**Source**: OECD Secretariat, EU (2007), and International Association of Deposit Insurers.

## ANNEX IV: CROSS-BORDER AND INTERNATIONAL ASPECTS

| | *INSURANCE* | | *BANKING* | |
|---|---|---|---|---|
| | **Cross-border: home vs host** | **Cross-border: scheme participation** | **Treatment of non-residents** | **Treatment of foreign denominated deposits** |
| **Australia** | Host | | Australian branches of foreign banks are not eligible. | Foreign currency deposits covered. |
| **Austria** | Home state principle for EU undertakings, and host state principle for non-EU undertakings. | | Non-residents are treated the same. | Foreign currency deposits not covered |
| **Belgium** | Host | | Non-residents are treated the same. | Foreign currency deposits not covered |
| **Canada** | Host | | Non-residents are eligible if the deposit is payable in Canada, and in Canadian currency.. | Foreign currency deposits not covered. |
| **Chile** | -- | | Non-residents are treated the same. | Foreign currency deposits not covered |
| **Czech Rep** | -- | | Non-residents are treated the same. | Foreign currency deposits not covered |
| **Denmark** | Home | | Non-residents are treated the same. | Foreign currency deposits not covered |
| **Estonia** | Host | Branches of foreign life insurers have to join the fund. | Branches of non-EEA credit institutions join when home scheme does not provide same or higher level protection. Foreign branches of Estonian credit institutions are protected when host country does not provide same level of guarantee. | Foreign currency deposits covered. |
| **Finland** | Host | | Non-residents are treated the same. | |
| **France** | Home | EU branches are not required to participate. | Non-residents are treated the same. | |
| **Germany** | Life and private health: Home<br>MTPL: Partly home, in so far as an agreement exists, and host | Life and private health: EU branches are not required (nor allowed) to participate.<br>MTPL: EU branches can participate. | Non-resident treated the same. | Foreign currency deposits not covered |
| **Greece** | Host | All risks in Greece are covered. | Non-resident treated the same. | Foreign currency deposits not covered |
| **Hungary** | -- | | Non-resident treated the same. Branches of domestic banks covered, if not protected by host country. | Foreign currency deposits not covered |
| **Iceland** | -- | | Non-resident treated the same. | Foreign currency deposits not covered |
| **Ireland** | Home for protection, host for contribution | Branches (including EU) required to contribute, but not protected. | Non-resident treated the same. Only for EU and EEA insured deposits. | Foreign currency deposits covered |
| **Israel** | Home | Compensation paid to foreign tourists in Israel and in the occupied territory. | -- | |

| | | | | |
|---|---|---|---|---|
| **Italy** | Host | | Non-resident treated the same. | Foreign currency deposits covered |
| **Japan** | Host | | N Non-resident treated the same. | Foreign currency deposits not covered |
| **Korea** | Host | | Non-residents treated the same. | |
| **Luxembourg** | -- | | Non-resident treated the same | Foreign currency deposits covered |
| **Mexico** | -- | | Non-resident treated the same. | Foreign currency deposits covered |
| **Netherlands** | -- | | Non-resident treated the same. | Foreign currency deposits covered |
| **New Zealand** | -- | | Non-resident treated the same. | Foreign currency deposits covered |
| **Norway** | Host | Only applies to risk occurrence in Norway. | Non-resident treated the same. | Foreign currency deposits covered |
| **Poland** | Host | | Non-resident treated the same. | Foreign currency deposits covered |
| **Portugal** | Host | | Non-resident treated the same. | Foreign currency deposits covered |
| **Slovak Rep** | -- | | Non-resident treated the same. | Foreign currency deposits covered |
| **Slovenia** | -- | | Non-resident treated the same. | Foreign currency deposits covered |
| **Spain** | Home for protection, host for contribution | Branches in Spain of insurance undertakings headquartered outside the EU/EEA are protected by the Spanish compensation scheme. | Non-resident treated the same. | Foreign currency deposits covered |
| **Sweden** | -- | | Non-resident treated the same. | Foreign currency deposits covered |
| **Switzerland** | -- | | Non-resident treated the same. | |
| **Turkey** | -- | | Non-resident treated the same. | Foreign currency deposits covered |
| **United Kingdom** | Host but United Kingdom insurers are covered for their EEA risks. | EEA insurers must participate for United Kingdom risks. Scheme covers cross-border contracts for risks in United Kingdom. | Non-resident treated the same. | Foreign currency deposits covered |
| **United States** | Host and home state (local guaranty association provides protection to residents. For life/health guaranty associations, insolvent insurer's home state protects residents from states the insurer was not licensed) | Each insurer must participate in each state it sells insurance contracts. | | |
| **Russian Fed** | -- | | Non-resident treated the same. | Foreign currency deposits covered |
| **Indonesia** | -- | | Non-resident treated the same. | Foreign currency deposits covered |
| **Brazil** | -- | | | |

**Notes:** *Home state principle* applies when they cover policies issued by domestic insurer that participate in the scheme including for its branches abroad. In turn, they do not require incoming firms to participate in the scheme.
*Host state principle* applies when all insurers operating in the country, regardless of whether they are headquartered, are required to participate in the scheme.

For deposit insurance funding, see Schich (2008).

**Source:** OECD Secretariat, EU (2007), and International Association of Deposit Insurers.

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