



EUROPEAN COMMISSION

Internal Market DG

FINANCIAL INSTITUTIONS

**Insurance**

MARKT/2529/02-EN

**Orig.**

**Report**

**of the working group**

**on non-life technical provisions**

**to the IC Solvency Subcommittee**

**September 2002**

Working group members:      Olivier ARLES  
Peter HINTON  
Bjorn PALMGREN  
Ramon PLATT  
John RYAN  
Damaso SANZ  
Francisco SOLA  
Pirkko WELIN-SIIKALUOMA

Facilitators:                      Olivier FLICHE  
Christian SCHEDEL

# Contents

1. EXECUTIVE SUMMARY .....	3
1.1. Background .....	3
1.2. Provisions for outstanding claims .....	3
1.3. Provisions for equalisation.....	5
2. INTRODUCTION.....	6
3. PROVISIONS FOR OUTSTANDING CLAIMS .....	8
3.1. Statistical data.....	8
3.1.1. Market aggregates .....	8
3.1.2. Diversity within markets .....	11
3.1.3. Conclusions on statistical data.....	12
3.2. Provisioning policies of European groups .....	13
3.2.1. Definitions and methods for calculating technical provisions.....	14
3.2.2. Provisioning policy of the group .....	14
3.2.3. Conclusions on interviews of groups .....	15
3.3. Possible regulatory answers to provisioning diversity.....	15
3.3.1. US type of RBC requirement .....	16
3.3.2. A numerical benchmark for the level of prudence .....	17
3.3.3. A “generally accepted” level of prudence .....	18
3.3.4. Conclusion – some suggestions for the supervisory review process .....	19
4. PROVISIONS FOR EQUALISATION .....	21
4.1. Role and nature of equalisation and catastrophe provisions.....	21
4.2. Main issues related to equalisation provisions .....	23
4.2.1. How and what to harmonise at European level? .....	23
4.2.2. How should equalisation provisions be considered when assessing solvency?.....	24
5. CONCLUSION .....	25

## **1. EXECUTIVE SUMMARY**

### **1.1. Background**

1. Under the Solvency II project, the IC Solvency Subcommittee decided, in 2001, to set up a working group on non-life technical provisions. This group, composed of experts from Member States and a representative of the Groupe Consultatif Actuariel Européen, was to provide the Subcommittee with additional information on the consistency of provisioning levels within Europe.
2. The group carried out its study during the first phase of the Solvency II project, a phase aimed at arriving at a decision on the form of a new solvency regime. Its findings are to be discussed by the Subcommittee in the concluding debates of this first phase, so as to take into account the specificity of non-life technical provisions. This report should be seen as a complement to other reports which address, in a wider context, non-life technical provisions, such as the “Manghetti report”<sup>1</sup> or part 4 of the KPMG report<sup>2</sup>.
3. The group focused on two main issues: provisions for outstanding claims and equalisation provisions.

### **1.2. Provisions for outstanding claims**

4. To address the diversity of the levels of prudence which may be applied to provisions for outstanding claims, the group decided to adopt both a quantitative and a qualitative approach to this issue.
5. With the quantitative approach, the group explored the possibility of comparing the level of prudence of provisions for outstanding claims using statistical indicators. As for the qualitative approach, members of the group had discussions with transnational insurance groups (which have concrete experience of different provisioning standards or practices) so as to gain a better understanding of the impact of the issue on competition.
6. The group then commented on the material gathered in order to provide the Subcommittee with a preliminary discussion of regulatory issues: what might be a prudential response, at EU level, to the diversity of provisioning practices? What is the importance of the “supervisory review process”?
7. The main findings of the working group are the following.
8. Firstly, supervisory authorities lack a common set of data for the analysis of provisions run-offs.

---

<sup>1</sup> Conference of the Insurance Supervisory Authorities of the Member States of the European Union: report on technical provisions in non-life insurance (March 2001).

<sup>2</sup> KPMG: study into the methodologies to assess the overall financial position of an insurance undertaking from the perspective of prudential supervision (May 2002).

9. Most supervisory authorities have data on provisions for outstanding claims but the quantity, quality and ease of access to these data is very variable. ***Requiring companies to provide statistical data according to a common European layout would have several advantages.***
10. Such data are actually a basis for supervisory review: creating common minimum standards for these data would ensure that supervisory authorities have common basic tools for supervising their national markets and would improve understanding between supervisors. Although different market characteristics will always make comparisons between different European countries difficult, monitoring of the divergence or convergence of provisioning practices throughout Europe will be made easier and this may help supervisors to react in a more harmonised manner.
11. Furthermore, any progress towards a more sophisticated regulatory approach is subject to the existence of common monitoring tools: in particular, these tools are necessary before setting up any quantitative rules<sup>3</sup>; they cannot be replaced by limited studies since it is of the utmost importance to check that the rules and methods are applicable across the Community and to monitor their continuing applicability in an evolving environment.
12. Secondly, ***the level of prudence in provisions for outstanding claims is a more complex issue than is usually presented.***
13. From the data collected and the interviews of transnational groups, there is enough evidence to say that different provisioning practices in different Member States lead to different average levels of prudence in the provisions. However, other phenomena than these differences between Member States seem to have greater influence on the level of prudence in the provisions, especially the nature of the business written and the specific provisioning problems it may pose for companies. In addition, as the data collected in fact show, not every market is characterised by common provisioning practices and within a given market the diversity of levels of prudence may be significant.
14. The group believes that ***the proper regulatory approach to this provisioning diversity is to try to make companies' practices converge towards a common level of prudence*** rather than to increase capital requirements for those companies with weak provisions.
15. In this respect, significant progress may be achieved in setting at European level ***principles and guidance for sound claims management and provisioning practices*** as well as ***a common basis for supervisory review*** (common statistical data have already been mentioned).

---

<sup>3</sup> Be it a US type "risk-based capital", which is not advocated by the group, or a numerical benchmark as in the Australian rules.

16. The group also expressed its interest in the Australian approach, which consists in giving a statistical interpretation of the minimum level of prudence in the provisions. However, given the state of the art in the insurance sector and, once again, the lack of statistical data, it is likely that significant time would be needed before such a solution could be workable in Europe.

### **1.3. Provisions for equalisation**

17. The group devoted part of its time to equalisation provisions: presentations of national regulations were made to the participants and a debate took place on the main issues in this area.
18. The group noticed the extreme diversity in the size of these provisions between national markets. Equalisation provisions are used as a buffer in adverse cases (catastrophes, “bad year”); they are therefore an additional buffer to the solvency margin: according to the group, *it would make sense to take equalisation provisions into account, together with the own funds, when assessing the solvency position of a company.*
19. The group also discussed the role of equalisation provisions and the advantage in allowing companies to have in place tax-exempted equalising mechanisms. *Extending the scope of equalisation provisions* (or other mechanisms to require companies to manage the risks arising out of the volatility of claims) in the Directives *and explicitly linking equalisation provisions and the volatility of the business written* would be a possible way to promote further convergence in this very poorly harmonised area.

## 2. INTRODUCTION

20. At its meeting on 18 May 2001, the Solvency Subcommittee decided to set up a working group on non-life technical provisions. This group would bring together experts from Member States and a representative of the Groupe Consultatif des Actuaires and would try to provide the Subcommittee with additional information on the consistency of provisioning levels within Europe.
21. As regards technical provisions, the Subcommittee has already two main sources of information.
22. The first one is a report drawn up in 2000 by a working group of the Conference of Insurance Supervisory Authorities (the “Manghetti report”). For every non-life technical provision, this report examines the definitions laid down by the current Directives as well as Member States’ different practices and concerns. This group devoted significant time to the concept of “ultimate cost” and concluded that the notion was still a valid reference for the proper valuation of provisions for outstanding claims.
23. The second one is the report awarded by the Commission to the consultant KPMG on a series of issues connected with the Solvency II project. In part 4, the study (released by KPMG in May 2002) describes different statistical methods used for determining provisions for outstanding claims, new trends and emerging practices, and discusses briefly the need and scope for harmonisation at European level.
24. It was therefore not the objective of the working group to embark on a comprehensive description of non-life technical provisions, which would necessarily have led it to duplicate either of those reports.
25. To provide the Subcommittee with a useful complement to the first two reports, the working group focused on the diversity of the levels of prudence which may be applied to provisions for outstanding claims. After an initial discussion, the group decided to adopt both a quantitative and a qualitative approach to this issue. With the quantitative approach, the group explored the possibility of comparing the level of prudence of provisions for outstanding claims using statistical indicators. As for the qualitative approach, members of the group had discussions with transnational insurance groups (which have concrete experience of different provisioning standards or practices) so as to gain a better understanding of the impact of the issue on competition.
26. The group also commented on the material gathered in order to provide the Subcommittee with a preliminary discussion of regulatory issues: what might be a prudential response, at EU level, to the diversity of provisioning practices? What is the importance of the “supervisory review process”?

27. The group also devoted part of its time to equalisation provisions: presentations of national regulations were made to the participants and a debate took place on the main issues in this area<sup>4</sup>.
28. The group was composed of experts from Finland, France, Germany, Spain, Sweden and the United Kingdom, an actuary from the Groupe Consultatif Actuariel Européen and facilitators from the Commission departments. It met five times, from September 2001 to September 2002.
29. This report summarises the findings of the working group. The first part is devoted to provisions for outstanding claims: the data collected are briefly shown and commented on, as well as the results of interviews with groups; the discussions of the working group on the main prudential issues are then summarised. In the second part, the role of equalisation provisions is discussed and the lack of harmonisation in this area is tentatively addressed.
30. As already mentioned, this report is the result of discussions between insurance experts. It does not necessarily reflect the Commission's opinion. Its goal is rather to describe several possible ideas which deserve further discussion in the Solvency Subcommittee.
31. It should also be noted that the context in which a number of issues were discussed in the working group may evolve due to international developments in the actuarial and accounting fields.

---

<sup>4</sup> The group also had a brief discussion on provisions for unexpired risks but did not discuss this issue in enough detail to add to the Manghetti report, which already sums up the main issues related to these provisions. The feeling of the group is that the Directive should be supplemented by more guidance and rules at technical level and appropriate intervention by supervisors.

### **3. PROVISIONS FOR OUTSTANDING CLAIMS**

32. As mentioned above, the working group used both quantitative and qualitative approaches to assess the diversity in provisioning practices.
33. Firstly, statistical data on past run-offs were collected in order to compare different market aggregates, but also, for those markets where the data were available, diversity of provisioning practices within markets.
34. Secondly, the group shared the results of discussions with transnational groups on provisioning practices and standards.
35. Once this picture of the diversity had been broadly sketched, the group discussed regulatory measures that might address this issue.

#### **3.1. Statistical data**

##### *3.1.1. Market aggregates*

##### Method

36. The first exercise was the collection of aggregate statistical data (gross of reinsurance) for all the countries represented in the group.
37. The group did not try to define a single indicator for “measuring” a precise level of prudence in the aggregate provisions in different countries. The group thought it preferable to follow three indicators that were simultaneously simple to calculate, fairly stable and complementary.
38. The first indicator is the ratio of provisions to claims payments in the previous accounting year: this ratio depends on the speed at which claims are paid and on the general level of prudence of provisions: if claims are paid at the same speed, a higher ratio suggests a higher level of prudence in the provision. This ratio was considered to be better than the provisions/premiums ratio, which may be influenced by premium cycles.
39. The second indicator tries to capture the claims settlement pattern. For a given occurrence year, the initial development of this pattern is given by the ratios of cumulative payments at the end of the first, second, third and fourth development year to the most recently estimated ultimate cost. Lower ratios for recent occurrence years may indicate a prudent provisioning practice (if this practice can be considered stable over time).
40. The third indicator is based on the run-off of the provisions. For given occurrence years, the group observed the evolution year by year of the estimated ultimate cost: if the provisioning methods and the legal environment remain constant and if random fluctuations are not too significant (which is a reasonable assumption at market level for some lines of business), a downward revision of the ultimate cost suggests that provisions have consistently been set up with prudence.



### Limits of the method

41. Before stating the results, it is important to underline the limits of this exercise.
42. The first limit lies in the problems encountered by the group in collecting proper data.
43. The group had to find common lines of business to compare the run-off of provisions: methods of provisioning, uncertainties in the provisions, and the claims settlement pattern depend greatly on the type of risk insured and the way the business is carried on. Products sold in different countries contain different coverages and are carried on in different ways: it is not always easy to assess the impact of these differences on the level of prudence in provisions.
44. In addition, the group had to find lines of business where statistical data existed: in some countries, data on the run-off of provisions are systematically collected; in others, they are not. In some cases, companies are even not required to keep the information available.
45. Taking into account these constraints, the group chose to focus on motor insurance, for which data seemed to allow comparison and, above all, were available for every country. The group also collected data for a longer-tail line of business (civil liability) so as to have an illustration of the differences in results according to the lines of business, even though the group is aware that comparison of civil liability business throughout Europe is problematic due to differences in coverage and risk exposure.
46. Moreover, the group was also obliged to restrict itself to the observation of run-offs over four years, a period which is too short for long-tail risks.
47. The second limit is due to the method itself. It is the traditional limit of every retrospective method: past observations may not always be a good basis for predicting the future.
48. For example, the observation of adverse run-offs may be due to a sudden change in legislation or jurisprudence that could not be anticipated: there is no reason for this kind of adverse run-off to be repeated (at least, if the trend of legal change has been properly anticipated, on the basis of this initial change). On the other hand, positive run-offs may be considered as a sign of prudence in the provisions, but they may also arise from a change in provisioning policy: if a company decides to diminish the margin of prudence in its provisions, the first accounting effect will be the recognition of positive run-offs. Similarly, an apparent increase in the speed of claims settlements can be interpreted as an improvement of claims settlement procedures but may also be due to a decrease in prudence in the estimate of ultimate cost rather than to a genuine increased speed of settlement.

## Results and comments

49. The data collected by the group are attached at Annex 1.
50. The table below presents an average ratio of the cost of a generation of claims, estimated four years after the initial estimation, to the initial estimated cost<sup>5</sup>. Only this indicator is shown here to simplify the presentation but it should be interpreted in connection with other indicators shown in the Annexes.

	Motor vehicle (total)	Motor vehicle Own damages	Motor vehicle Liability	Long-tail business
France	0.92	0.96	0.90	<i>General civil liability</i> <sup>6</sup> 1.04
Germany	0.91	0.92	0.91	<i>Civil liability</i> <sup>7</sup> 0.81
Spain	1.20	1.03	1.29	<i>Civil liability</i> <sup>8</sup> 1.22
Sweden	0.99		1.10	-
United Kingdom	0.98			<i>Employers liability</i> <sup>9</sup> 1.03

51. As regards motor insurance, the situation of France, Germany and the United Kingdom can be compared. The patterns of payments are broadly similar in these three cases; data seem fairly stable and observed run-offs of the market aggregate provisions are positive. The margin of prudence may be slightly higher in Germany than in France, whereas the UK estimated cost shows in comparison a lower positive run-off.
52. Spanish data show partly the difficulties of the market in provisioning. However, the characteristics of the Spanish market should be briefly mentioned here. In the context of very strong competition, the market is in a consolidation phase, with a number of companies being merged or wound up. In motor insurance, new procedures for claims settlement have increased the speed of payments, making the interpretation of statistical series more difficult. Statistical data were also harder to collect than in other countries. Care is therefore needed before drawing conclusions.

---

<sup>5</sup> Estimated cost gross of reinsurance, non-discounted. See Annex 1.

<sup>6</sup> In France, this category includes all types of civil liability business except motor vehicle and building civil liability.

<sup>7</sup> In Germany, this includes all lines of liability insurance except motor liability and aircraft.

<sup>8</sup> In Spain, this category of voluntary insurance includes all civil liability other than motor vehicle insurance: professional liability, hunting, nuclear, building, etc.

<sup>9</sup> In the UK, employers liability covers legal liability by employers towards employees for injuries at work. It is compulsory for employers to have this cover, but the cover purchased is usually more than the minimum required by law.

53. The results shown for Sweden reflect a transitional phase: changes in disability claims practice, especially economic disability levels, caused an increase during the observation period of the claims borne by insurers.
54. The Finnish data<sup>10</sup> could not be compared to the others, since provisions for outstanding claims include provisions for annuities and claims payments include corresponding annuity payments.
55. Although data on civil liability can hardly be compared across countries, the indicators collected clearly illustrate the fact that, in a given country, the level of prudence in provisions depends on the line of business. The figures suggest that levels of prudence may vary more between lines of business in a single country than between countries for a single line of business.

### 3.1.2. Diversity within markets

56. To complete the previous exercise, the group felt it necessary to collect information on the diversity in the strength of provisions which may exist among companies, for the same line of business and the same market.
57. A different indicator was chosen for this purpose: the ratio of savings in provisions over an accounting year to the provisions at the start of the year (all occurrence years together). An average ratio over four years, smoothing random fluctuations, was also calculated<sup>11</sup>.
58. The table below shows the distribution of companies according to this average development ratio, for motor insurance.

	Number of companies	<-15%	-15% to -10%	-10% to -5%	-5% to 0%	0% to 5%	5% to 10%	10% to 15%	>15%
France	121	2%	1%	3%	8%	35%	31%	16%	4%
Sweden	9	22%	11%	11%	56%	0%	0%	0%	0%
UK <sup>12</sup>	80	17%	6%	16%	15%	22%	10%	3%	11%

59. The limits of this type of indicator, based on a retrospective analysis, will not be repeated here but should be borne in mind.
60. However, the data collected show a very different picture depending on the market. For example, the comparison between French and British markets raises several interesting questions.

---

<sup>10</sup> Not presented in this table because the indicator could not be calculated.

<sup>11</sup> For further details, see Annex 3.

<sup>12</sup> Companies accounted for on an accident year basis, that is excluding Lloyd's and any companies accounted for on an underwriting year basis.

61. The French market is characterised by the stability of the development factors over the years. The dispersion of companies according to these ratios is not very large and it is difficult to assess what part of this dispersion is due to the effects of random fluctuation and what can be attributed to different provisioning policies.
62. The effects of random fluctuations of provisions influence the distribution of companies and are particularly perceptible for small-size<sup>13</sup> companies (for which standard deviation is higher). These fluctuations are smoothed when a longer time span is considered, as the distribution of the average ratios (over four years) clearly shows<sup>14</sup>.
63. The median factor of large-size companies is slightly higher than small and medium-size companies: it may be due to large mutual companies which have a substantial market share in motor insurance in France and traditionally adopt a prudent provisioning policy.
64. The data from the British market are not so stable: the median development factor is highly variable over four years. This may be explained by the characteristics of motor insurance in the UK, particularly by the increase in Court awards.
65. Overall, it can be said that the UK market is provisioned at or near “best estimate”, but this general statement should not overshadow the fact that there is a very large diversity of situations. The great dispersion of development factors, compared to the French market, as well as the fact that the average ratio (over four years) does not seem to reduce significantly this dispersion, suggests that the dispersion is caused by very different provisioning practices and levels of prudence coexisting in the market.

### *3.1.3. Conclusions on statistical data*

66. From these “quantitative” exercises, the working group has drawn the following conclusions.
67. Firstly, sufficiently reliable statistical data on provisions were not always available. Several supervisory authorities have recently tried to improve the quantity and quality of the data they collect on provisions. However, to allow reliable and fruitful comparison between countries and, possibly, lines of business, it would be valuable if a common set of statistical data could be defined at European level.

---

<sup>13</sup> For the French market, the 121 companies were divided into thirds: “small-size”, “medium-size” and “large-size” companies.

<sup>14</sup> See Annexes and the differences between the distribution of companies according to annual development factors and according to a four-year average development factor.

68. Source data may be, for instance, annual actual claims payments and estimated total cost, both collected for all or a limited number of occurrence years. These data should be collected separately for each business line. Difficulties in comparing business lines between different countries have already been mentioned. Some participants thought that a common EU approach could refer to the 18 classes of business. This approach is actually used in some countries. Other participants doubted the relevance of this approach for the following reason: data collected by insurers usually relate to their entire liabilities under contracts of a given type, which may straddle several classes, and any split between classes would be arbitrary and therefore might be quite unreliable.
69. Secondly, as far as the limited amount of statistical information allows conclusions on the various levels of prudence in the provisions<sup>15</sup>, the group feels that:
- The level of prudence in the provisions depends strongly on the line of business;
  - To a lesser extent, different national provisioning practices may influence the general level of conservatism in provisions;
  - The existence of this average level of prudence should not overshadow the existence of different provisioning policies in a given market. The data collected give very different pictures of this diversity within markets.
70. Lastly, the group notes that the situation is evolving: current trends may alter the picture drawn here.

### **3.2. Provisioning policies of European groups**

71. Members of the working group had interviews with several international insurance groups on non-life technical provisions and particularly on provisions for outstanding claims.
72. The following insurance and reinsurance groups were interviewed: AXA<sup>16</sup>, CGNU<sup>17</sup>, HDI<sup>18</sup> and MAPFRE<sup>19</sup>. In addition, three interviews held in October 2001 with actuaries in Swedish non-life insurance companies were reported to the working group.

---

<sup>15</sup> It should be mentioned here that, despite the fact that past run-offs are convenient indicators, according to the size of the company and the reinsurance cover similar levels of savings may not correspond to similar degrees of prudence in the provisions.

<sup>16</sup> AXA - Breakdown of non-life technical provisions (2001, in EUR billion): France, 8.5; Germany: 6.3; UK: 5.4; Belgium: 5; Italy: 2.1; others: 5.8.

<sup>17</sup> CGNU (now renamed Aviva) - Breakdown of non-life technical provisions (2001, in GBP billion): UK: 7.7; Canada: 1.5; France:1.2; Netherlands: 0.9; Ireland: 0.9; Australia: 0.8; others: 1.3).

<sup>18</sup> HDI - Total non-life provisions around EUR 20 billion. 60% of the business is located in the group's reinsurance company, Hannover Re.

<sup>19</sup> MAPFRE - Total non-life provisions (2001): EUR 3.8 billion. This group operates mainly in Spain, Portugal and Latin America.

73. These interviews were based on a questionnaire (attached at Annex 4). In the first part, the group was asked what differences it identified in the definitions, methods and practices in provisioning within the EU. In the second part, the group was invited to explain whether any diversity of national practices constrained its internal provisioning policy.

#### *3.2.1. Definitions and methods for calculating technical provisions*

74. Definitions of technical provisions and their methods of calculation were considered to be quite similar across Europe.
75. The main differences identified in definitions concern equalisation reserves, for which the scope differs from one country to another, and provisions for unexpired risks, for which investment income might or might not be taken into account. In no case did the existence of an equalisation provision seem to affect the calculation of provisions for outstanding claims.
76. Data collected in different countries are also similar (e.g. claims triangles for claims provisions). However, several groups underlined differences between countries in the level of detail of these data and in their ease and speed of collection.
77. Common actuarial methods are used across the EU. Methods used depend on the line of business (and also on the size and actuarial resources of the company). In some cases, a regulatory rule imposes a formula for calculating provisions (France: building insurance; Belgium: working compensation<sup>20</sup>). In one case, it was also pointed out that, although actuarial methods were internationally recognised, calculation of provisions might take into account some factors that are peculiar to the local environment and therefore may be difficult to assess from outside.
78. Finally, groups were asked to rank the different countries according to the level of prudence in provisions. Some groups expressed clearly the opinion that, probably for cultural reasons, the level of prudence in the provisions is higher in some countries than in others although similar methods are used. However, the replies were not precise enough to compare the different classifications, their convergence or their contradictions.

#### *3.2.2. Provisioning policy of the group*

79. Most, but not all, of the interviewed insurance groups aim to harmonise provisioning practices across subsidiaries. The main tool for this is the definition and implementation of a common actuarial methodology across different units. Provisions calculated by individual units are also usually assessed at central level.

---

<sup>20</sup> A group also mentioned IBNR in Spain although there is no specific formula for IBNR in the Spanish legislation.

80. Some of the groups monitor separately provisions evaluated at “best estimate”<sup>21</sup> and an additional margin for prudence. In these cases, whereas the methodology for calculating best estimate may be precisely determined, the level of the margin of prudence seems less formalised. This margin of prudence is not disclosed to supervisors or other parties; it is not explicitly determined in relation to the volatility of provisions and it is not even obvious that groups maintain this margin of prudence constant over time. As a matter of fact, the margin of prudence seems to be left, to a great extent, to the discretion of the operating subsidiaries.
81. In most cases, the interviewed insurance groups would welcome stronger harmonisation of provisioning practices: the adoption of a common accounting standard, such as US GAAP or the IAS project, was mentioned as a possible way of achieving this. The main reason for wishing stronger harmonisation at accounting level is that it would make internal control and monitoring easier.
82. However, differences in provisioning practices do not seem to be a major constraint in the conduct of business. In particular, none of the groups considered that such differences constituted an obstacle to a level playing field.

### *3.2.3. Conclusions on interviews of groups*

83. The main conclusions of the working group are the following.
84. For internal control purposes, insurance groups need a common set of data for every subsidiary as well as a formalised methodology. Supervisory authorities could set minimum standards in these areas and use the data collected in their supervisory review process.
85. Insurance groups add to their best estimate liabilities a margin of prudence. The methods for calculating this margin of prudence are rather rough and ready: this characteristic should be taken into account when discussing prudential issues. However, differences in this margin of prudence are not considered by insurance groups as a major competition issue.

### **3.3. Possible regulatory answers to provisioning diversity**

86. The level of prudence in the provisions has a large and direct influence on the own funds of a company, as they appear in the balance sheet. It is therefore frequently argued that a capital requirement loses some of its relevance if it applies on top of provisions set in various ways.
87. The group thought it useful to have a preliminary discussion on this issue and examined three possible approaches:
- the first is to adapt the capital requirement to the strength of the provisions of each company (an example of this approach is the US risk-based capital requirement);

---

<sup>21</sup> No clear definition was given for best estimate, but it might be considered to approximate to the mean or the median.

- the second is to determine a numerical benchmark for the level of prudence of the provisions (this approach has been explored by Australia);
  - the third approach would be to keep a qualitative requirement of prudence and to enhance convergence of practices with guidance and supervisory review.
88. It should be mentioned that the first two cases were examined on the basis of limited experience within the group. The increased interest among both insurers and supervisors for provisioning questions, in particular provisioning volatility or underestimation, should, however, in time improve the understanding of what approaches are indeed feasible and also suitable for general supervisory purposes. For the time being, there are doubts as to both feasibility and suitability.

### *3.3.1. US type of RBC requirement*

#### US example

89. The US risk-based capital requirement tries to reflect the individual provisioning risk by analysing loss developments.
90. The NAIC (National Association of Insurance Commissioners) determines factors to be applied to the provisions on the basis of the market worst loss development rate (“worst case year”) observed over ten years. These factors are then corrected for each company by a factor which reflects the company’s specific run-offs.

#### Discussion

91. The principle of this rule was questioned by the group. There is a risk of accepting implicitly that companies are allowed to set aside insufficient provisions, the insufficiency being covered by an extra capital requirement. The group is of the opinion that, if provisions are not adequate, the right solution is to increase the provisions, not the capital requirement. Confusion between what must be recognised in provisions and the capital requirement should be avoided.
92. The practicalities were also discussed. A solution of this nature would probably be based on the relative deviation from a market average and so would not directly reflect absolute risk, since the market may be under-reserved. To be implemented in practice, such a solution must also be relatively simple and might as a consequence become imprecise and arbitrary.
93. Besides, analysis of loss developments is not the only method to check the adequacy of provisions. It sometimes even gives wrong indications: a company for which current results deteriorate may lower the level of its provisions, creating apparent savings on loss development; that should not make the solvency requirement decrease, since provisions become less conservative and profitability more uncertain.
94. Therefore, it might happen that such a system penalised companies with stronger reserves. It is in any case a disincentive to increase the provisions when unexpected external events (changes in legal environment) make it necessary.



95. The use of a common indicator, based on common statistics, would be a useful tool for supervisors (as a warning system) but it should not be linked to an automatic capital requirement. A common indicator at European level would ease comparisons between markets.

### 3.3.2. *A numerical benchmark for the level of prudence*

#### Australian example

96. With its project, the Australian Authority (APRA) seeks “to ensure that insurance liabilities are properly valued for prudential purposes and are not a product of other influences such as taxation, reported profit or the required prudential capital adequacy of the insurer”.
97. APRA has, therefore, decided to fix a minimum prudential requirement for provisions, whereby provisions must have a 75% probability of being sufficient (or, if higher, the mean plus half the standard deviation of the liabilities). This amount must be approved by an actuary.
98. In addition, like the US RBC, the margin requirement includes an amount for “provisioning risk” but this is calculated much more simply: it is calculated by applying fixed rates to the claims provisions (ranging from 9% to 18%, depending on the line of business. The main categories are 9%, 11% and 15%).

#### Discussion

99. Most of the participants thought that the principle of defining in exact terms a harmonised level of prudence of provisions is desirable. In addition, this concept might be compatible with the IAS developments.
100. However, the concrete implementation of such a standard raises a number of questions.
101. Firstly, which methods should be used to assess the central estimate, the standard deviation or a given percentile? The choice or even a rough understanding of the underlying probability distributions or stochastic processes may be problematic. In particular, types of business with a lack of relevant claims experience or with high volatility may not fit simply into the model.
102. The second question is at which level (individual claim, line of business, whole portfolio) the standard must be applied. For example, there is a conflict of perspective between valuing individual claims and a portfolio of claims. A statistical approach to individual outstanding claims refers to properties of the estimation method over a number of cases (“in 75 cases out of 100 the estimate will cover the true value of the technical provision, but nothing can be said about the actual case”). Adding these estimates for all claims of a portfolio will be an overestimation of the total expected loss, unless the claims are fully correlated. If the claims are less than perfectly correlated, or even close to independent, the portfolio value will be less.
103. Ideally, it can be argued that such a standard should apply to technical provisions as a whole (both gross and net of reinsurance). In practice the provisions are segmented by type of provision or class of insurance and the standard may be applied to each segment separately.

104. The third question regards the formulation of the benchmark. The arbitrariness of the choice of probability level is problematic. In a European context, the level of probability of 75% may not be considered sufficient: it should nonetheless be recalled that if the 75<sup>th</sup> percentile is difficult to estimate, the estimation of the 90<sup>th</sup> percentile is even more subject to uncertainties.
105. For very skewed distributions, the reference to a given percentile may be inadequate: that is why the Australian standard specifies that the prudence margin over the central estimate should not be less than half the standard deviation of the liabilities. The Groupe Consultatif considers it easier to work with just one condition and favours a reference to the standard deviation. However, there are problems with most benchmark formulations, except perhaps for business with few or possibly very homogeneous and standardised claims. In these cases benchmarks are likely already to coincide with good insurance practice.
106. In conclusion, the group has a mixed opinion on this solution. For some participants, defining such a standard would provide a benchmark to aim at and therefore would promote convergence of practices, even though much time would probably be needed to develop guidance and experience. For others, an unclear standard, with no reliable methodology, would be interpreted in a wide variety of ways and would not, in practice, add much to a qualitative standard.

### 3.3.3. A “generally accepted” level of prudence

107. This solution would be broadly similar to the current European rule of prudence: provisions must be “adequate” (Third Non-Life Directive) that is to say that they must be “such that an undertaking can meet any liabilities arising out of insurance contracts as far as it can reasonably foreseen” (Insurance Accounting Directive).
108. The drawback of such a formulation was underlined in the discussion of the working group. The level of prudence suffers from a lack of definition. A “generally accepted” level of prudence in the provision is not easy to ensure at European level: supervisors may have different interpretations of the level of prudence and, as the current situation shows, even where a “generally accepted level of prudence” seems to exist in one market, companies still have different provisioning policies.
109. However, some participants stressed the advantages of this third approach: it offers the flexibility needed for the wide variation of conditions and circumstances that may apply to outstanding claims and the underlying insurance contracts.
110. With this approach, there is a natural focus within the supervisory authority and within insurance undertakings on methods, fundamental risks and methodological variation regarding provisioning for outstanding claims. This could develop into an internal risk-model approach, making it possible to reduce any corresponding solvency requirements to a bare minimum if there is an agreement with the supervisory authority on soundness and efficiency of methods used.
111. An observation was made on the cost of the supervisory review which this method implies. To alleviate this burden, indicators based on past run-offs (as in the first approach) or benchmarks (as in the second approach), although not considered a compulsory standard, could be used as a basis for dialogue with companies, as well as a tool for early warning or prioritised action.

112. To improve the current situation and promote convergence of practices, the group feels that progress should be made in two areas, related to the supervisory review process:

- Principles and guidance on good provisioning practices should be issued at European level;
- Common EU standards on collection of data and statistics should be set up.

#### *3.3.4. Conclusion – some suggestions for the supervisory review process*

113. The discussions of the working group showed that the last two approaches are very close to each other. The basic principle is the same: provisions must be sufficiently prudent. One approach quantifies this level of prudence, the other does not.

114. In both cases, the “prudence” of provision does not mean that a capital requirement is not necessary on top of provisions, since provisions cannot eliminate all uncertainty.

115. The difference between the two approaches should be discussed from a time perspective.

116. Given the state of the art in the insurance sector and the lack of common statistical data, it is difficult to envisage a rapid implementation of a numerical standard in Europe for the margin of prudence in provisions.

117. Priority should therefore be placed on the strengthening of supervisory review of provisions. This would include, as mentioned above, guidance on provisioning practices, common statistical data, and also closer cooperation between supervisory authorities to promote harmonisation (e.g. comparison of practices, exchange of ideas or, even, supervisors).

118. The group discussed briefly the existence of guidance on provisioning practices in different Member States. The majority of countries represented in the working group have guidance or regulations on provisions but their level of detail is very different from one country to another. A review of the consistency of these regulations, and possibly their harmonisation, may be valuable.

119. Principles defined at European level could cover the following areas:

- Hierarchy of decision-making and empowerment (e.g. separate claims handling from underwriting, supervise any delegated authority);
- Provisioning methods (e.g. categorise data suitably, use skilled people to make estimates, back-test claims estimates, that is compare past estimates with emerging experience);
- Registration (e.g. record claims promptly and accurately, review claims files regularly);
- Documentation;

- Internal control (e.g. identify claims backlogs and monitor whether system is under pressure);
- Reporting.

120. Lastly, the definition of a numerical benchmark for the level of prudence could be done at a later stage. However, a bolder option would be to define this benchmark immediately to speed up harmonisation of provisioning practices, although all the practicalities of such a standard may take years to be solved.

#### 4. PROVISIONS FOR EQUALISATION

121. The Manghetti report mentioned the extreme variation between the different national regulations on equalisation provisions, as regards their compulsory nature, their tax treatment and the rules of calculation.
122. This diversity has a direct consequence on the balance sheets of insurance companies, as the table below suggests.

2000 EUR million	Provision for claims o/s (gross of reinsurance)	Provision for claims o/s (net of reinsurance)	<b>Equalisation provision</b>	<b>Eq. Provision/ net premiums</b>	EU margin requirement	EU margin req/net premiums
Finland	4 502	4 184	<b>1 299</b>	<b>61.0%</b>	431	20.2%
France	67 250	52 975	<b>1 683</b>	<b>4.7%</b>	7 148	19.8%
Germany	66 754	45 957	<b>8 596</b>	<b>21.7%</b>	6 969	17.2%
Spain	14 515	11 443	<b>308</b>	<b>4.8%</b>	1 373	21.3%
Sweden <sup>22</sup>	23 373	22 765	<b>22</b>	<b>0.4%</b>	1 430	24.5%
UK	186 810	122 415	<b>1 996</b>	<b>2.6%</b>	13 716	17.8%

123. In Finland and Germany, equalisation provisions must be set up for all lines of non-life business and their calculation is regulated precisely. These regulations were presented to the working group (see Annexes 6 and 7).
124. In Spain, the Consorcio de Compensacion de Seguros, a State-owned company, covers most catastrophe risk (see Annex 8)<sup>23</sup>. This explains the low level of equalisation provision of the market.
125. The group then discussed briefly the role and advantage of equalisation provisions, and the possible ways to improve comparability and convergence of practices.

##### 4.1. Role and nature of equalisation and catastrophe provisions

126. Equalisation provisions are in principle used for equalising claims ratios over time and as catastrophe reserves.
127. The need for equalising claims ratios over time varies considerably between different kinds of portfolios. The two extremes in this respect could be the following.
128. In some lines of business, the number of claims is very high and the variance of the claim size distribution is small. In this case, it is not necessary to equalise claims ratios, because they will not vary much from year to year.

---

<sup>22</sup> In addition, Sweden allows a voluntary safety reserve that in principle can be used only to cover negative technical results. This reserve has equalisation effects but is not classified as technical provisions. It can be a considerable part of the available solvency margin: in 2000, it amounted to SEK 75 006 million, that is to say around 140% of annual premiums.

<sup>23</sup> More information on the Consorcio de Compensacion de Seguros can be found at [www.conorseguros.es](http://www.conorseguros.es).

129. In other lines of business, however, the number of claim events is small and the variance of the claim size distribution is large and the distribution is considerably skewed to the right. In this case, the total amount of claims will fluctuate strongly from one year to another. The total amount of claims is relatively small for most years, but every now and then there are years when the total claim amount is very high.
130. In this latter case, there are several ways to tackle the problem of setting premiums and managing capital requirements. Firstly, it is possible to estimate the risk premium based on the expected amount of claims. But only exceptionally would this risk premium correspond to the actual claim amounts in a year. Analysis over a longer time span would be needed.
131. Possible solutions for low-frequency, high-severity business are:
- *Set the premiums at a level that corresponds to the worst case:* during most years, when the claims ratio is low, this would lead the company to distribute the collected extra premium in taxes and dividends. Obviously this is not a feasible solution from the point of view of competition. Nor is it fair from the point of view of policyholders;
  - *Take out reinsurance cover according to the worst case:* the problem is therefore transferred to the reinsurer. This solution increases premiums owing to the cost of reinsurance (administration expenses and profit margin). Most years the collected extra premium (which is obviously smaller than in the first approach) would be paid out in the form of taxes, dividends and reinsurance premiums;
  - *Keep solvency capital according to the worst case:* this would be the best solution from the point of view of competition. It does not require any extra collection of premiums, and the premiums could reflect the true risk premium. But again, unless a mechanism similar to equalisation provision is in use, most years much of the premium (the smallest this far) will be given out in taxes and dividends.
132. Since premiums can be expected to match claims over a longer time frame, it is desirable that the premiums be used to pay claims instead of being paid out. But that would need part of the premiums to be set aside tax-free for years to come.
133. Catastrophes<sup>24</sup> resemble this second case, but the fluctuations can be much larger and the time span possibly longer. The situation in a catastrophe is made more difficult through the fact that risks which under normal circumstances are independent will become highly correlated in a catastrophic situation.
134. The remedies here are largely those mentioned above. The company needs funds available, either its own funds or those of its reinsurers. In a catastrophe there is always the risk, though, that some of the reinsurers might be unable to meet their liabilities.

---

<sup>24</sup>

A catastrophe can be thought of as a (rare and extreme) event which generates a large accumulation of claims. It may affect different classes of insurance.

135. Obviously premiums cannot be fixed according to the worst case. If the company doesn't have own funds available, it will need extensive reinsurance cover. It would be expensive to transfer all the risk of a catastrophe to reinsurers. There might even be difficulties in obtaining sufficient cover.
136. A good approach would be to have a tax-exempt reserve for catastrophes, large enough to cover a significant part (possibly all) of the exposure. The optimal size of such a reserve could be measured through scenario-type calculations. The reserve should be financed through catastrophe loadings included in the premiums.
137. In conclusion, there is ample justification:
- for an equalising system for lines of business characterised by catastrophes or volatile claim costs, to enable companies to set aside amounts during favourable years in order to pay extra claims during future adverse years; and
  - for the equalisation provision set aside to be tax-free to ensure the consistency and durability of the system.
138. However, it must be remembered that, though traditional equalising mechanisms allow more efficient risk smoothing, they do not guarantee that equalisation provisions will be sufficient to meet the worst case scenario.

#### **4.2. Main issues related to equalisation provisions**

139. The group focused on the following two issues:

##### *4.2.1. How and what to harmonise at European level?*

140. The current situation suggests that, although there is a need for some harmonisation, this aim should be pursued with caution.
141. Common rules might be an improvement for countries where there are currently no national rules, or only flat-rate calculation based on tax legislation. But such harmonisation should not lead to the destruction of existing sophisticated systems in other countries.
142. In addition, some participants doubt that the right solution lies in a formula, since a formula is no substitute for a proper analysis of the factors giving rise to claims.
143. If technical agreement on a method for calculating equalisation provisions is found too difficult to achieve, a possible intermediate step would be the following:
- Extend the scope of equalisation provisions to other volatile lines of business;
  - For these lines of business, state, at European level, that companies must have in place an equalisation mechanism which reflects the volatility of the business and takes into account their reinsurance programme. Detailed regulations or guidance would be left to Member States.
144. Although this solution would not create a very strong constraint at European level, it would have the advantage of obliging companies to assess and recognise the volatility of their business.

145. The feasibility of this solution is of course subject to international accounting developments and to the decision to be taken on the future links between financial statements and supervisory reporting.
146. The group underlined also the importance of the tax treatment of equalisation provisions. Inappropriate tax treatment might result in insurers being unfairly taxed and driving up the cost of insurance. Although the working group is aware that the tax system is not the responsibility of prudential regulators, harmonisation of the tax treatment of equalisation provisions would be valuable.

*4.2.2. How should equalisation provisions be considered when assessing solvency?*

147. In the current system, equalisation provisions are not considered part of the available solvency margin; but in practice, when a supervisor has to make a judgment about the solvency of a company whose business is highly volatile (e.g. hail insurance), the level of equalisation provisions is one of the main criteria to be considered.
148. Like own funds, equalisation provisions are a buffer which may help the company to face a “bad year” or a catastrophe<sup>25</sup>: it is therefore relevant to take into account the total amount of capital and equalisation provisions to assess whether a company has enough funds to cover the risks it takes on.
149. So equalisation provisions (or reserves) should have a dual status: provisions (liabilities) corresponding to benefits that cannot be taxed or distributed to shareholders; reserves (capital) to be taken into account in the company’s available solvency margin<sup>26</sup>.
150. In such a case, it would be necessary to state more explicitly the following principle: the level of equalisation provisions must not influence the way other provisions are calculated, since equalisation provisions will be treated in the same way as capital in terms of solvency margin. In particular, strong equalisation provisions do not justify weak claims provisions; they cannot substitute for the “risk margin” added to a central or “best” estimate of outstanding claims.

---

<sup>25</sup> See also observation made in paragraph 138.

<sup>26</sup> In parallel, there is a need to consider how volatility can be better taken into account in setting the solvency requirement.



## 5. CONCLUSION

151. As regards provisions for outstanding claims, the main findings of the working group are the following.
152. Firstly, supervisory authorities lack a common set of data for the analysis of provisions run-offs.
153. Most supervisory authorities have data on provisions for outstanding claims but the quantity, quality and ease of access to these data is very variable. ***Requiring companies to provide statistical data according to a common European layout would have several advantages.***
154. Such data are actually a basis for supervisory review: creating common minimum standards for these data would ensure that supervisory authorities have common basic tools for supervising their national markets and would improve understanding between supervisors. Although different market characteristics will always make comparisons between different European countries difficult, monitoring of the divergence or convergence of provisioning practices throughout Europe will be made easier and this may help supervisors to react in a more harmonised manner.
155. Furthermore, any progress towards a more sophisticated regulatory approach is subject to the existence of common monitoring tools: in particular, these tools are necessary before setting up any quantitative rules<sup>27</sup>; they cannot be replaced by limited studies since it is of the utmost importance to check that the rules and methods are applicable across the Community and to monitor their continuing applicability in an evolving environment.
156. Secondly, ***the level of prudence in provisions for outstanding claims is a more complex issue than is usually presented.***
157. From the data collected and the interviews of transnational groups, there is enough evidence to say that different provisioning practices in different Member States lead to different average levels of prudence in the provisions. However, other phenomena seem to have greater influence on the level of prudence in the provisions, especially the nature of the business written and the specific provisioning problems it may pose for companies. In addition, as the data collected in fact show, not every market is characterised by common provisioning practices and within a given market the diversity of levels of prudence may be significant.
158. The group believes that ***the proper regulatory approach to this provisioning diversity is to try to make companies' practices converge towards a common level of prudence*** rather than to increase capital requirements for those companies with weak provisions.

---

<sup>27</sup> Be it a US type “risk-based capital”, which is not advocated by the group, or a numerical benchmark as in the Australian rules.

159. In this respect, significant progress may be achieved in setting at European level ***principles and guidance for sound claims management and provisioning practices*** as well as a common basis for supervisory review (common statistical data have already been mentioned).
160. The group also expressed its interest in the Australian approach, which consists in giving a statistical interpretation of the minimum level of prudence in the provisions. However, given the state of the art in the insurance sector and, once again, the lack of statistical data, it is likely that significant time would be needed before such a solution could be workable in Europe.
161. As regards equalisation provisions, the group noticed the extreme diversity in the size of these provisions between national markets. Equalisation provisions are used as a buffer in adverse cases (catastrophes, “bad year”); they are therefore an additional buffer to the solvency margin: according to the group, ***it would make sense to take equalisation provisions into account, together with the own funds, when assessing the solvency position of a company.***
162. The group also discussed the role of equalisation provisions and the advantage in allowing companies to have in place tax-exempted equalising mechanisms. ***Extending the scope of equalisation provisions*** (or other mechanisms to require companies to manage the risks arising out of the volatility of claims) in the Directives ***and explicitly linking equalisation provisions and the volatility of the business written*** would be a possible way to promote further convergence in this very poorly harmonised area.

## **List of Annexes**

Annex 1: Statistical data on aggregate provisions – motor insurance

Annex 2: Statistical data on aggregate provisions – other lines of business

Annex 3: Distribution of companies according to their past run-offs

Annex 4: Questionnaire for interviewing insurance groups on non-life technical provisions

Annex 5: Data on equalisation provisions

Annex 6: Equalisation provisions – presentation of the Finnish system

Annex 7: Equalisation provision – presentation of the German system

Annex 8: Consorcio de Compensacion de Seguros and catastrophe risk – brief presentation