KPMG

Valuation of Asbestos-Related Disease Liabilities of former James Hardie entities ("the Liable Entites") to be met by the AICF Trust

Prepared for Asbestos Injuries Compensation Fund Limited ("AICFL")

As at 31 March 2020

19 May 2020

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19 May 2020

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Cc Jason Miele, Chief Financial Officer, James Hardie Industries plc
Mark Hare, Director, Department of Premier and Cabinet, The State of New South Wales
The Board of Directors, Asbestos Injuries Compensation Fund Limited

Dear Narreda

Valuation of Asbestos-Related Disease Liabilities of former James Hardie entities ("The Liable Entities") to be met by the AICF Trust

We are pleased to provide you with our Annual Actuarial Report relating to the asbestos-related disease liabilities of the Liable Entities which are to be met by the AICF Trust.

The report is effective as at 31 March 2020 and has taken into account claims data and information provided to us by AICFL as at 31 March 2020.

If you have any questions with respect to the contents of this report, please do not hesitate to contact us.

Yours sincerely

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Executive Summary

Important Note: Basis of Report

This valuation report ("the Report") has been prepared by KPMG Actuarial, a division of KPMG Financial Services Consulting Pty Ltd (ABN 91 144 686 046) (hereafter collectively referred to as "KPMG") in accordance with an "Amended and Restated Final Funding Agreement in respect of the provision of long-term funding for compensation arrangements for certain victims of Asbestos-related diseases in Australia" (hereafter referred to as the "the Amended Final Funding Agreement") between James Hardie Industries NV (now known as James Hardie Industries plc) (hereafter referred to as "James Hardie"), James Hardie 117 Pty Limited, the State of New South Wales and Asbestos Injuries Compensation Fund Limited ("AICFL") which was signed on 21 November 2006.

This Report is intended to meet the requirements of the Amended Final Funding Agreement and values the asbestos-related disease liabilities of the Liable Entities to be met by the AICF Trust.

This Report is not intended to be used for any other purpose and may not be suitable, and should not be used, for any other purpose. Opinions and estimates contained in the Report constitute our judgment as of the date of the Report.

The information contained in this Report is of a general nature and is not intended to address the objectives, financial situation or needs of any particular individual or entity. It is provided for information purposes only and does not constitute, nor should it be regarded in any manner whatsoever as, advice and is not intended to influence a person in making a decision in relation to any financial product or an interest in a financial product. No one should act on the information contained in this Report without obtaining appropriate professional advice after a thorough examination of the accuracy and appropriateness of the information contained in this Report having regard to their objectives, financial situation and needs.

In preparing the Report, KPMG has relied on information supplied to it from various sources and has assumed that the information is accurate and complete in all material respects. KPMG has not independently verified the accuracy or completeness of the data and information used for this Report.

Except insofar as liability under statute cannot be excluded, KPMG, its executives, directors, employees and agents will not be held liable for any loss or damage of any kind arising as a consequence of any use of the Report or purported reliance on the Report including any errors in, or omissions from, the valuation models.

The Report must be read in its entirety. Individual sections of the Report, including the Executive Summary, could be misleading if considered in isolation. In particular, the opinions expressed in the Report are based on a number of assumptions and qualifications which are set out in the full Report.

Introduction

The Amended Final Funding Agreement requires the completion of an Annual Actuarial Report evaluating the potential asbestos-related disease liabilities of the Liable Entities to be met by the AICF Trust. KPMG has been retained by AICFL to provide this Annual Actuarial Report as required under the Amended Final Funding Agreement and this is detailed in our Engagement Letter dated 14 November 2019.

The Liable Entities are defined as being the following entities:

- Amaca Pty Ltd (formerly James Hardie & Coy);
- Amaba Pty Ltd (formerly Jsekarb, James Hardie Brakes and Better Brakes); and
- ABN60 Pty Ltd (formerly James Hardie Industries Ltd).

In addition, the liability for Baryulgil claims is deemed to be a liability of Amaca by virtue of the James Hardie (Civil Liability) Act 2005 (NSW). Under Part 4 of that Act, Amaca is liable for the "Marlew Asbestos Claims" or "Marlew Contribution Claims" as defined in that Act.

Our valuation is on a central estimate basis and is intended to be effective as at 31 March 2020. It has been based on claims data and information as at 31 March 2020 provided to us by AICFL.

Overview of Recent Claims Experience and comparison with previous valuation projections

In this section we compare the actual experience in 2019/20 (referred to in the following tables as "FY20 Actual") with the projections for 2019/20 that were contained within our previous valuation report at 31 March 2019. We will refer to these projections for 2019/20 as "FY20 Expected" in the tables that follow.

Claim numbers

There have been 438 mesothelioma claims reported in 2019/20, a 16% increase compared to the 376 mesothelioma claims reported in 2018/19 and 16% above expectations for 2019/20 (378 claims).

Direct claims were 5% above expectations whilst cross claims were 56% above expectations. As such, the primary cause of the increase was cross claims, and these claims typically cost around one quarter of the cost of direct claims.

For non-mesothelioma claims (excluding workers compensation claims), there have been 198 claims reported in 2019/20, a 16% increase compared to 170 claims reported in 2018/19.

The following table shows the comparison of actual experience with that which had been forecast at the previous valuation.

Table E.1. Comparison of claim numbers

	FY20 Actual	FY20 Expected	Ratio of Actual to Expected (%)	FY19 Actual
Mesothelioma (direct claims)	**316**	**300**	**105%**	**304**
<60	21	22	95%	16
60-70	60	67	90%	57
70-80	145	128	113%	146
80+	87	83	105%	84
age not known	3	0	n/a	1
Mesothelioma (cross claims)	**122**	**78**	**156%**	**72**
<60	2	6	33%	5
60-70	20	19	105%	14
70-80	57	31	184%	31
80+	33	22	150%	19
age not known	10	0	n/a	3
Total	**438**	**378**	**116%**	**376**

	FY20 Actual	FY20 Expected	Ratio of Actual to Expected (%)	FY19 Actual
Asbestosis	136	96	142%	103
Lung Cancer	25	21	119%	15
ARPD & Other	33	33	100%	39
Wharf	4	12	33%	13
Workers	21	24	88%	22
Total	**219**	**186**	**118%**	**192**

Average Claim Awards

Average claims awards in 2019/20 have been lower than expectations across most disease types with the exception of ARPD & Other.

For mesothelioma, average claim sizes have been favourable across all four age cohorts.

The following tables shows the comparison of actual experience with that which had been forecast at the previous valuation.

Table E.2. Comparison of average claim size of mesothelioma non-nil claims

	FY20 Actual ($)	FY20 Expected ($)	Ratio of Actual to Expected (%)	FY19 Actual ($)
Mesothelioma (all claims)				
<60	588,000	661,995	89%	561,771
60-70	361,864	408,195	89%	389,486
70-80	332,192	334,170	99%	326,333
80+	265,876	270,720	98%	252,778
Mesothelioma (direct claims)				
<60	614,647			660,925
60-70	428,047			458,688
70-80	393,135			370,192
80+	313,356			300,716
Mesothelioma (cross claims)				
<60	135,000			115,579
60-70	81,857			145,243
70-80	88,418			118,001
80+	80,703			81,868
Mesothelioma Large Claims (settled)				
Number	1	4	25%	2
Average claim size	1,715,000	2,564,438	67%	2,366,000
Large claim expenditure	1,715,000	10,257,752	17%	4,732,000

Note: FY19 Actuals have been inflated (by 4%) to mid 2019/20 values

Note: FY20 expected for mesothelioma were set aggregated across direct and cross claims for each age cohort.

Table E.3. Comparison of average claim size of non-mesothelioma non-nil claims

	FY20 Actual ($)	FY20 Expected ($)	Ratio of Actual to Expected (%)	FY19 Actual ($)
Asbestosis	108,337	111,038	98%	96,692
Lung Cancer	83,998	121,613	69%	78,160
ARPD & Other	139,825	105,750	132%	112,859
Wharf	98,606	105,750	93%	57,542
Workers	50,000	153,338	33%	0

Cashflow expenditure: gross and net

Gross cashflow expenditure, at $160.2m, was 1% above expectations.

Net cashflow expenditure, at $142.4m, was lower than expectations by 5%.

Table E.4. Comparison of cashflow

	FY20 Actual ($M)	FY20 Expected ($M)	Ratio of Actual to Expected (%)	FY19 Actual ($M)
Gross Cashflow	**160.2**	**159.0**	**101%**	**154.4**
Insurance and Other Recoveries	(14.0)	(9.5)	147%	(11.6)
Insurance recoveries from HIH and from commutations	(3.8)	0.0	n/a	0.0
Net Cashflow	**142.4**	**149.5**	**95%**	**142.8**

Liability Assessment

At 31 March 2020, our projected central estimate of the liabilities of the Liable Entities (the Discounted Central Estimate) to be met by the AICF Trust is $2,025.2m. We have not allowed for the future Operating Expenses of the AICF Trust or the Liable Entities in the liability assessment.

Table E.5. Comparison of central estimate of liabilities

	31 March 2020 $m			31 March 2019 $m
	Gross of insurance recoveries	**Insurance recoveries**	**Net of insurance recoveries**	**Net of insurance recoveries**
Total uninflated and undiscounted cash-flows	1,521.2	68.8	1,452.4	1,399.8
Inflation allowance	784.1	21.3	762.8	818.7
Total inflated and undiscounted cash-flows	**2,305.3**	**90.1**	**2,215.2**	**2,218.5**
Discounting allowance	(196.4)	(6.4)	(190.0)	(350.1)
Net present value liabilities	**2,108.9**	**83.7**	**2,025.2**	**1,868.4**

Comparison with previous valuation

In the absence of any change to the claim projection assumptions from our 31 March 2019 valuation, other than allowing for the changes in the discount rate, we would have projected a Discounted Central Estimate liability of $1,888.7m as at 31 March 2020.

The increase of $20.3m relative to the valuation result at 31 March 2019 is due to:

- A decrease of $122.2m, being the net impact of expected claims payments (which reduce the liability) and the "unwind of discount" (to reflect the fact that cashflows are now one year nearer).
- An increase of $142.5m resulting from reductions to the yield curve between 31 March 2019 and 31 March 2020, particularly relating to lower yields at durations below 15 years.

Our liability assessment at 31 March 2020 of $2,025.2m therefore represents an increase of $136.5m arising from changes to the actuarial assumptions. The change is principally a consequence of:

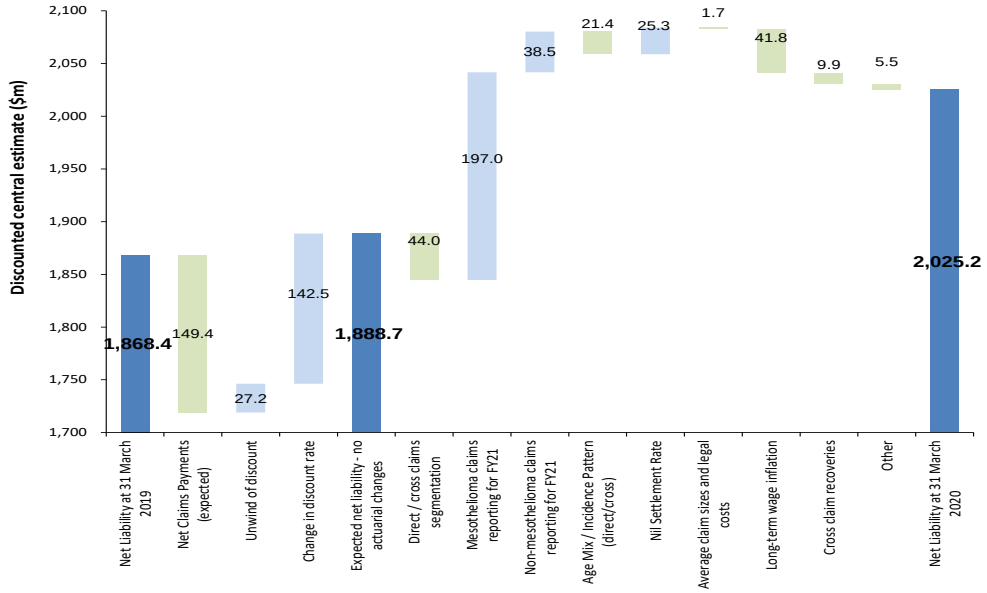
- An increase to the projected future number of mesothelioma claims given the higher numbers of claims reported in 2019/20;
- An increase to the projected future number of asbestosis claims given the higher numbers of claims reported in 2019/20; and
- A decrease to the assumed nil settlement rates for mesothelioma claims;

offset by

- Recognition of the change in mix of mesothelioma claims towards cross claims which are less costly than direct claims within the same age group;
- Recognition of the favourable mix of claims by claimant age, given the increased proportions of claims emerging from older age cohorts relative to previous assumptions;
- A decrease in the rate of future claims inflation by 25 basis points across all future years; and
- Higher assumed future cross-claims recovery rates.

The following chart shows an analysis of the change in our liability assessments from 31 March 2019 to 31 March 2020 on a discounted basis.

Figure E.1. Analysis of change in central estimate liability (discounted basis)



Note: Green bars signal that this factor has given rise to a decrease in the liability whilst light blue bars signal that this factor has given rise to an increase in the liability.

Amended Final Funding Agreement calculations

The Amended Final Funding Agreement sets out the basis on which payments will be made to the AICF Trust.

Additionally, there are a number of other figures specified within the Amended Final Funding Agreement that we are required to calculate. These are:

- Discounted Central Estimate;
- Term Central Estimate; and
- Period Actuarial Estimate.

Table E.6. Amended Final Funding Agreement calculations

	$m
Discounted Central Estimate (net of cross-claim recoveries, Insurance and Other Recoveries)	2,025.2
Period Actuarial Estimate (net of cross-claim recoveries, gross of Insurance and Other Recoveries) comprising:	518.9
Discounted value of cashflow in 2020/21	*166.0*
Discounted value of cashflow in 2021/22	*179.3*
Discounted value of cashflow in 2022/23	*173.6*
Term Central Estimate (net of cross-claim recoveries, Insurance and Other Recoveries)	1,996.7

The actual funding amount due at a particular date will depend upon a number of factors, including:

- the net asset position of the AICF Trust at that time;
- the free cash flow amount of the James Hardie Group in the preceding financial year; and
- the Period Actuarial Estimate in the latest Annual Actuarial Report.

Potential impacts of COVID-19

At the time of preparing this report, COVID-19 continues within Australia and globally.

We note the significant impact that the emergence of COVID-19 has had on the yield curve as at 31 March 2020.

For the purpose of our report, we have made no explicit allowance or adjustment for the impact of COVID-19.

We have concluded that the number of claims received in the year were not substantially affected by the restrictions in place in Australia.

In relation to both the number of claims settled and the amounts of claims-related expenditure in the year to 31 March 2020, we have also concluded that neither of these were substantially affected by the restrictions in place in Australia.

We have documented the deliberations that led to these conclusions in Section 1.5 of this Report.

Uncertainty

Estimates of asbestos-related disease liabilities are subject to considerable uncertainty, significantly more than personal injury liabilities in relation to other causes, such as CTP or Workers Compensation claims.

It should therefore be expected that the actual emergence of the liabilities will vary from any estimate. As indicated in Figure E.2, depending on the actual out-turn of experience relative to that currently forecast, the variation could potentially be substantial.

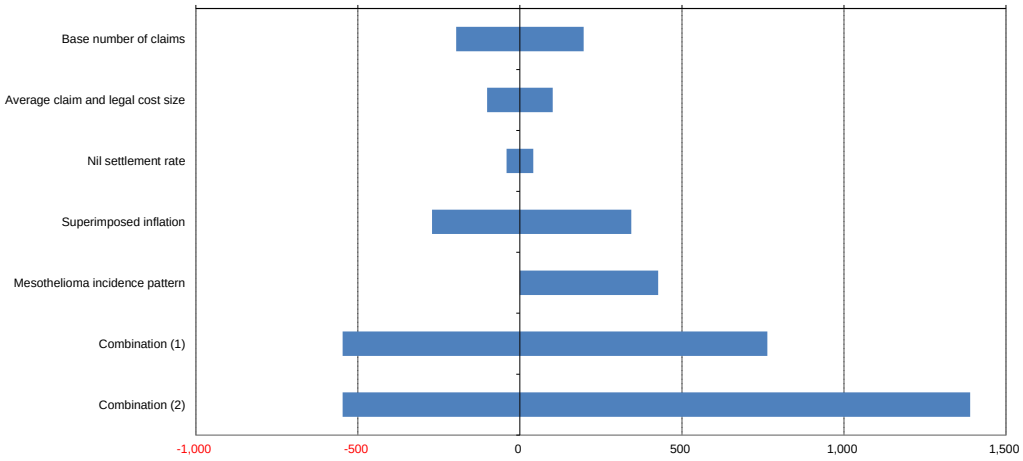
Thus, no assurance can be given that the actual liabilities of the Liable Entities to be met by the AICF Trust will not ultimately exceed the estimates contained in this Report. Any such variation may be significant.

We have performed sensitivity testing to identify the impact of different assumptions upon the size of the liabilities. The different scenarios selected are documented at Section 11.2 of this report.

We have not included a sensitivity test for the impact of changes in discount rates although, as noted in this Report, changes in discount rates can introduce significant volatility to the Discounted Central Estimate result reported at each year-end.

We note that these sensitivity test ranges are not intended to correspond to a specified probability of sufficiency, nor are they intended to indicate an upper bound or a lower bound of all possible outcomes.

Figure E.2. Sensitivity testing results – Impact around the Discounted Central Estimate (in $m)



The single most sensitive assumption shown in the chart is the peak period of claims reporting against the Liable Entities. Shifting the pattern of incidence by 2 years could add approximately $427m (21%) on a discounted basis to our valuation (as shown in the above chart by the scenario labelled "mesothelioma incidence pattern").

Table E.7. Summary results of sensitivity analysis ($m)

	Undiscounted	Discounted
Central estimate	2,215.2	2,025.2
Low Scenario	1,593.6	1,478.2
High Scenario	3,861.7	3,414.9

Whilst the table above indicates a range around the discounted central estimate of liabilities of -$547m to +$1,390m, the actual cost of liabilities could fall outside that range depending on the actual experience.

Executive Summary Not Report

Please note that this executive summary is intended as a brief overview of our Report. To properly understand our analysis and the basis of our liability assessment requires examination of our Report in full.

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Appendices

1. Scope and Purpose

1.1 Introduction

The Amended Final Funding Agreement requires the completion of an Annual Actuarial Report evaluating the potential asbestos-related disease liabilities of the Liable Entities to be met by the AICF Trust.

1.1.1 Liable Entities

The Liable Entities are defined as being the following entities:

- Amaca Pty Ltd (formerly James Hardie & Coy);
- Amaba Pty Ltd (formerly Jsekarb, James Hardie Brakes and Better Brakes); and
- ABN60 Pty Ltd (formerly James Hardie Industries Ltd).

In addition, the liability for Baryulgil claims is deemed to be a liability of Amaca by virtue of the James Hardie (Civil Liability) Act 2005 (NSW). Under Part 4 of that Act, Amaca is liable for "Marlew Asbestos Claims" or "Marlew Contribution Claims" as defined in that Act.

Baryulgil claims are discussed further in Section 5.8.

1.1.2 Personal asbestos claims

Under the Amended Final Funding Agreement, the liabilities to be met by the AICF Trust relate to personal asbestos-related disease liabilities of the Liable Entities.

The precise scope of the liabilities is documented in Section 1.2 and in Appendix C of this Report.

1.1.3 Purpose of report

KPMG has been retained by AICFL to provide an Annual Actuarial Report as required under the Amended Final Funding Agreement and this is detailed in our Engagement Letter dated 14 November 2019.

The prior written consent of KPMG is required for any other use of this Report or the information contained in it.

Our valuation is effective as at 31 March 2020 and has been based on claims data and information as at 31 March 2020 provided to us by AICFL.

1.2 Scope of report

We have been requested to provide an actuarial assessment as at 31 March 2020 of the asbestos-related disease liabilities of the Liable Entities to be met by the AICF Trust, consistent with the terms of the Amended Final Funding Agreement.

The assessment is on a central estimate basis and is based on the claims experience as at 31 March 2020.

A "central estimate" liability assessment is an estimate of the expected value of the range of potential future liability outcomes. In other words, if all the possible values of the liabilities are expressed as a statistical distribution, the central estimate is an estimate of the mean of that distribution.

It is of note that our liability assessment:

- Relates to the Liable Entities and Marlew (in relation to Marlew Claims arising from asbestos mining activities at Baryulgil).
- Is intended to cover:
  - The amount of settlements, judgments or awards for all Personal Asbestos Claims.
  - Claims Legal Costs incurred by the AICF Trust in connection with the settlement of Personal Asbestos Claims.
- Is not intended to cover:
  - Personal injury or death claims arising from exposure to asbestos which took place outside Australia.
  - Personal injury or death claims, arising from exposure to Asbestos, which are brought in Courts outside Australia.
  - Claims for economic loss, other than any economic loss forming part of an award for damages for personal injury and/or death.
  - Claims for loss of property, including those relating to land remediation.
  - The costs of asbestos or asbestos product removal relating to asbestos or asbestos products manufactured or used by or on behalf of the Liable Entities.
- Includes an allowance for:
  - Compensation to the NSW Dust Diseases Authority ("DDA") or a Workers Compensation Scheme by way of a claim by such parties for contribution or reimbursement from the Liable Entities, but only to the extent that the cost of such claims is within the limits of funding for such claims as outlined within the Amended Final Funding Agreement.
  - Workers Compensation claims, being claims from former employees of the Liable Entities, but only to the extent that such liabilities are not met by a Workers Compensation Scheme or Policy (see section 1.2.1).
- Assumes that the product and public liability insurance policies of the Liable Entities will continue to respond to claims as and when they fall due. We have not made any allowance for the impact of any disputation concerning Insurance Recoveries, nor for any legal costs that may be incurred in resolving such disputes.

- Makes no allowance for:
  - Insurance Recoveries from insurance policies placed from 1986 onwards which were placed on a "claims made" basis.
  - the future Operating Expenses of the Liable Entities or the AICF Trust. Separate allowance for future Operating Expenses should be considered by the management of AICFL.
  - the inherent uncertainty of the liability assessment. That is, no additional provision (or risk margin) has been included in excess of a central estimate.

Readers of this Report may refer to our previous reports which are available at www.ir.jameshardie.com.au and www.aicf.org.au.

1.2.1 Workers Compensation

Workers Compensation claims are claims made by former employees of the Liable Entities. Such past, current and future reported claims were insured with, amongst others, Allianz Australia Limited, QBE and the various State-based Workers Compensation Schemes.

Under the Amended Final Funding Agreement, the part of a future Workers Compensation claim that is met by a Workers Compensation Scheme or Policy of the Liable Entities is outside of the AICF Trust. The AICF Trust is, however, to provide for any part of a claim not covered by a Workers Compensation Scheme or Policy (e.g. as a result of the existence of limits of indemnity and policy deductibles on those policies of insurance).

On this basis our liability assessment in relation to Workers Compensation claims and which relates to the AICF Trust, includes only the amount borne by the Liable Entities in excess of the anticipated recoveries due from a Workers Compensation Scheme or Policy.

In making our assessment we have assumed that the Workers Compensation insurance programme will continue to respond to claims by former employees of the Liable Entities as and when they fall due. To the extent that they were not to respond owing to (say) insurer insolvency, Insurer Guarantee Funds may be available to meet such obligations.

1.2.2 Dust Disease Authority and Other Reimbursements

The Amended Final Funding Agreement indicates that the AICF Trust is intended to meet Personal Asbestos Claims and that claims by the DDA or a Workers Compensation Scheme for reimbursement will only be met up to a certain specified limit (aggregated across the DDA and Workers Compensation Schemes), being:

- In the first financial year (2006/07) a limit of $750,000 applied;
- In respect of each financial year thereafter, that limit is indexed annually in line with the Consumer Price Index. At 31 March 2020, the annual limit is $1.04m;
- There is an overall unindexed aggregate cap of $30m;
- At 31 March 2020, AICFL has paid out $11.47m to the DDA.

The cashflow and liability figures contained within this Report have already removed that component of any reimbursements that will not be met by the AICF Trust owing to the application of these limits and caps.

1.2.3 Risk Margins

Australian-licensed insurance companies are required to hold, and many non-insurance companies elect to hold, insurance and self-insurance claims provisions at a level above the central estimate basis to reflect the uncertainty attaching to the liability assessment and to include an allowance in respect of that uncertainty.

A risk margin is an additional amount held, above the central estimate, so as to increase the likelihood of adequacy of the provisions to meet the ultimate cost of settlement of those liabilities.

We note that the Amended Final Funding Agreement envisages the ongoing financing of the AICF Trust is to be based on a "central estimate" approach and that the Annual Actuarial Report should provide a Discounted Central Estimate valuation.

Accordingly, we have made no allowance for any risk margins within this Report.

1.3 Areas of potential exposure

As identified in Section 1.2, there are other potential sources of claims exposure beyond those directly considered within this Report. However, in a number of cases they are unquantifiable even if they have the potential to generate claims. This is especially the case for those sources of future claim where there has been no evidence of claims to date.

1.3.1 General areas of potential exposure

Areas of potential changes in claims exposure we have not explicitly allowed for in our valuation include, but are not limited to:

- Future significant individual landmark and precedent-setting judicial decisions;
- Significant medical advancements;
- Unimpaired claims, i.e. claims for fear, stress, pure nervous shock or psychological illness;
- A change in the basis of compensation for asymptomatic pleural plaques for which no associated physical impairment is exhibited;
- A proliferation (compared to past and current levels of activity) of "third-wave" claims, i.e. claims arising as a result of indirect exposure such as home renovation, washing clothes of family members that worked with asbestos, or from workers involved in the removal of asbestos or the demolition of buildings containing asbestos;
- Changes in legislation, especially those relating to tort reform for asbestos sufferers. Examples include the current consultation by the Law Reform Commission in Western Australia in relation to damages for gratuitous services and provisional damages;
- Introduction of new, or elimination of existing, heads of damage;

- Exemplary and aggravated or punitive damages (being damages awarded for personal injuries caused as a result of negligence or reckless conduct);
- Changes in the basis of apportionment of awards for asbestos-related diseases for claimants who have smoked;
- Changes to taxation; and
- Future bankruptcies of other asbestos claim defendants (i.e. other liable manufacturers or distributors).

Nonetheless, implicit allowance is made in respect of some of these items in the allowance for superimposed inflation included in our liability assessment. Furthermore, to the extent that some of these have emerged in past claims experience, they are reflected in our projections.

1.3.2 Third-wave claims

We have made allowance for so-called "third-wave" claims. These are defined as claims for personal injury and / or death arising from asbestos exposure during home renovations by individuals or to builders involved in such renovations. Such claims are allowed for within the projections to the extent to which they have arisen to date and to the extent our exposure model factors in these exposures in its projection.

We have not allowed for a significant additional surge in third-wave claims (over and above current levels of activity) in the future arising from renovations, but conversely we have not allowed for a tempering of those third-wave claims already included within our projection as a result of improved education of individuals as to the risks of such home renovations, or of any local Councils or State Governments passing laws in this regard.

It should be noted that claims for the cost of asbestos or asbestos product removal from homes and properties or any claims for economic loss arising from asbestos or asbestos products being within such homes and properties is not required to be met by the AICF Trust.

1.4 Data reliances and limitations

KPMG has relied upon the accuracy and completeness of the data with which it has been provided. KPMG has not verified the accuracy or completeness of the data, although we have undertaken steps to test its consistency with data previously received. However, KPMG has placed reliance on the data previously received, and currently provided, as being accurate and complete in all material respects.

1.5 Potential impacts of COVID-19

At the time of preparing this report, COVID-19 continues within Australia and globally.

We note the significant impact that the emergence of COVID-19 has had on the yield curve as at 31 March 2020.

For the purpose of our report, we have made no explicit allowance or adjustment for the impact of COVID-19.

We have concluded that the number of claims received in the year were not substantially affected by the restrictions in place in Australia.

We have based this conclusion on the following facts:

- For the first 11 months of the financial year (i.e. through to 29 February 2020), AICF and also plaintiff and defendant law firms continued to operate as normal.
- The number of COVID-19 cases in Australia was less than 30 as at 29 February 2020.
- Claims received by the Liable Entities in March will have related to diagnoses that on average would have arisen approximately 6 months prior. As such, the Statements of Claim that were served against the Liable Entities in March 2020 would have already been substantially in preparation and/or completed by 29 February 2020.
- AICF received 33 mesothelioma claims and 17 non-mesothelioma claims in March 2020. In the previous 11 months there had been 607 claims (an average of 55 claims per month).
- AICF currently (since its shutdown) receives Statements of Claim electronically rather than by courier, given the closure of the offices.

In relation to both the number of claims settled and the amounts of claims-related expenditure in the year to 31 March 2020, we have also concluded that neither of these were substantially affected by the restrictions in place in Australia.

The rationale for this conclusion is the same as above with the following additional points:

- AICF settled 28 mesothelioma claims and 27 non-mesothelioma claims in March 2020. In the previous 11 months, there had been 541 claims settled (an average of 49 claims per month).
- Claims payments in March 2020 primarily relate to claims whose settlements are agreed in February 2020. As noted above, there had been no operational impacts through to 29 February 2020.

1.6 Uncertainty

It must be understood that estimates of asbestos-related disease liabilities are subject to considerable uncertainty.

This is due to the fact that the ultimate disposition of future claims will be subject to the outcome of events that have not yet occurred. Examples of these events, as noted in Section 1.3, include jury decisions, court interpretations, legislative changes, epidemiological developments, medical advancements, public attitudes, potential additional third-wave exposures and social and economic conditions such as inflation.

Therefore, it should be expected that the actual emergence of the liabilities will vary, perhaps materially, from any estimate. Thus, no assurance can be given that the actual liabilities of the Liable Entities to be met by the AICF Trust will not ultimately exceed the estimates contained herein. Any such variation may be significant.

1.7 Distribution and use

The purpose of this Report is as stated in Section 1.1.

This Report should not be used for any purpose other than those specified.

This Report will be provided to the Board and management of AICFL. This Report will also be provided to the Board and management of James Hardie, the NSW Government and to EY in their capacity as auditors to both James Hardie and AICFL.

We understand that this Report will be filed with the ASX and placed on James Hardie's website in its entirety.

We understand that this Report will also be placed on AICFL's website in its entirety.

KPMG consents to this Report being made available to the above-mentioned parties and for the Report to be distributed in the manner described above.

To the extent permitted by law, neither KPMG nor its Executives, directors or employees will be responsible to any third parties for the consequences of any actions they take based upon the opinions expressed with this Report, including any use of or purported reliance upon this Report not contemplated in Section 1.2. Any reliance placed is that party's sole responsibility.

Where distribution of this Report is permitted by KPMG, the Report may only be distributed in its entirety and judgements about the conclusions and comments drawn from this Report should only be made after considering the Report in its entirety and with necessary consultation with KPMG.

Readers are also advised to refer to the "Important Note: Basis of Report" section at the front of the Executive Summary of this Report.

1.8 Date labelling convention used in this Report

In our analyses throughout this Report (unless otherwise stated), the "year" we refer to aligns with the financial year of AICFL and James Hardie and runs from 1 April to 31 March.

A "2008" notified claim would be a claim notified in the period 1 April 2008 to 31 March 2009. This might also be referred to as "2008/09" or "FY09".

Similarly, a "2019" claim settlement would be a claim settled in the period 1 April 2019 to 31 March 2020. This might also be referred to as "2019/20" or "FY20".

1.9 Author of the report

This Report is authored by Neil Donlevy, an Executive of KPMG Financial Services Consulting Pty Ltd, a Fellow of the Institute of Actuaries (London) and a Fellow of the Institute of Actuaries of Australia.

This Report is co-authored by Jefferson Gibbs, an Executive of KPMG Financial Services Consulting Pty Ltd, a Fellow of the Institute of Actuaries (London) and a Fellow of the Institute of Actuaries of Australia.

In relation to this Report, the primary regulator for both Neil Donlevy and Jefferson Gibbs is the Institute of Actuaries of Australia.

1.10 Professional standards and compliance

This Report details a valuation of the outstanding claims liabilities of entities which hold liabilities with features similar to general insurance liabilities.

In preparing this Report, we have complied with the Professional Standard 302 of the Institute of Actuaries of Australia ("PS302"), "Valuation of General Insurance Claims".

However, as we note in Section 1.2, this Report does not include an allowance for the future Operating Expenses of the AICF Trust (which are estimated by AICFL) and nor does it include any allowance for a risk margin to reflect the inherent uncertainty in the liability assessment.

1.11 Control processes and review

This valuation report and the underlying analyses have been subject to technical review and internal peer review.

The technical review focuses on ensuring that the valuation models and supporting claims experience analyses that are carried out are performed correctly and that the calculations are being correctly applied. The technical review also focuses on ensuring that the data that is being used has been reconciled insofar as possible.

Internal peer review involves a review of the approach, the methods, the assumptions selected and the professional judgments applied.

Both the technical review and internal peer review processes are applied to the Report as well as the valuation models.

1.12 Basis of preparation of Report

We have been advised by the management of AICFL to prepare the Report on a "going concern" basis (i.e. we should assume that AICFL will be able to meet any shortfall in the cost of the liabilities of the Liable Entities as they fall due).

The cashflow estimates contained in this Report assume that claims against the Liable Entities will continue to be paid in full as and when they fall due.

2. Data

2.1 Data provided to KPMG

We have been provided with the following data by AICFL:

- Claims dataset at 31 March 2020 with individual claims listings;
- Accounting transactions dataset at 31 March 2020 (which includes individual claims payment details); and
- Detailed insurance bordereaux information (being a listing of claims filed with the insurers of the Liable Entities) as at 31 March 2020.

We have allowed for the benefits of the product and public liability insurance policies of the Liable Entities based on information provided to us by AICFL relating to the insurance programme's structure, coverage and layers.

We have also considered the claims data listings which formed the basis of our previous valuation assessments. The data structures provided for the claims and accounting datasets are consistent with those provided at previous valuations.

2.2 Data limitations

We have tested the consistency of the various data sets provided to us at different valuation dates. Section 2.3 outlines the nature of the testing undertaken.

However, we have not otherwise verified the data and have instead relied on the data provided as being complete and accurate in all material respects.

We have relied upon the robustness of AICFL's internal administration and systems as to the completeness of the data provided.

Consequently, should there be material errors or incompleteness in the data, our assessment could also be affected materially.

2.3 Data reconciliation and testing

We have performed a reconciliation of the data provided at 31 March 2020 with the data provided at 31 March 2019.

We have undertaken a number of tests and reconciliations to test the accuracy of the data to the extent possible, noting the limitations outlined above.

2.3.1 Reconciliation with previous valuation's data

We have performed a reconciliation of the claims database as at 31 March 2020 with that provided at 31 March 2019.

Our findings are:

- Claims notifications: There were no new claims reported that had a report date prior to 31 March 2019. No claims (that already had a notification date) changed notification date between the two databases.
- Portfolio category: Seven claims changed category. Two of these changed to mesothelioma.
- Settlement date: There has been one claim that previously had a settlement date prior to 31 March 2019 that has changed settlement dates at the current valuation.

Changing and developing data is not unexpected or to be considered as adverse. Indeed, changing data is common to all claims administration systems. We do not consider the number or extent of the changes noted above to be unreasonable, nor do we consider the changes to be material to the valuation.

2.3.2 Reconciliation of claims settlement amounts between claims and accounting databases

We have mapped the financial data between the claims and accounting databases into standardised groupings as follows:

Table 2.1: Grouping of financial data from claims and accounting databases

	CLAIMS DATABASE	ACCOUNTING DATABASE
Award	Damages (gross of cross-claims) ***plus*** DDB reimbursement ***plus*** Medicare (from Accounting Database)	Damages ***plus*** DDB reimbursements ***plus*** Medicare
Costs / Other	Costs ***plus*** Other ***less*** Medicare (from accounting database)	Costs ***plus*** Consulting
Defence legal costs	Defence legal costs	Defence legal costs

Note: Recovery amounts are available from the accounting database

We have compared the payment records between the claims database and the accounting database from the earliest date to the current file position.

The table below shows the results of this reconciliation for all claim transactions to date.

Table 2.2: Comparison of amounts from claims and accounting databases ($m)

CLAIMS DATABASE		ACCOUNTING DATABASE	
Damages (gross of recoveries, excluding medicare)	1,885.7	Damages (gross of recoveries)	1,888.4
Costs	57.7	Costs	58.4
DDB	16.2	DDB	16.3
Other (inc Medicare)	5.5	Consulting	2.2
		Medicare	3.2
		Interest	0.2
Defence legal costs	208.6	Defence legal costs	209.1
Total Value	**2,173.7**	**Total Value**	**2,177.8**
Standardisation			
Award plus Medicare plus DDB	1,905.1	Award plus Medicare plus DDB	1,907.9
Costs / Other	60.0	Costs / Other	60.8
Defence legal costs	208.6	Defence legal costs	209.1
Total Value	**2,173.7**	**Total Value**	**2,177.8**

The standardisation is the most relevant comparison because the two database extracts allocate the information (particularly in relation to Medicare) in slightly different ways.

Once the standardisation has been undertaken, the two datasets reconcile closely – with reconciliation differences for claim awards totalling approximately $2.8m (31 March 2019: $2.5m).

Our approach for each claim record has been to take the maximum value of the two databases for each claim record. This results in the following overall totals being used in our analysis:

- $1,908.3m for the claims award component;
- $61.3m for the costs / other component; and
- $209.4m for the defence legal costs component.

This approach, of taking the maximum value for each claims record, may result in some minor prudence in our overall analysis although the amount of prudence is not considered to be significant in the context of the size of the potential liabilities and the underlying uncertainty in any valuation estimating future claims costs over the next 40 years or more.

2.4 Data conclusion

We have not verified the underlying data nor have we undertaken "auditing at source". No material data issues have been identified and notified to us by the Approved Auditor of AICFL (EY) during their testing.

We have tested the data for internal consistency with the data provided at the previous valuation (31 March 2019).

Based on that testing and reconciliation, and subject to the limitations described in Section 1.4, we have formed the view that:

- Generally, the data is consistent between valuations, with any differences in the data being readily explainable;
- The financial data appears to reconcile reasonably between the two data sources (the claims dataset and the accounting transactions datasets);
- Any data issues that have emerged are not significant in relation to the size of the liabilities; and
- The data is appropriate for use for the purpose of this Report.

3. Valuation Methodology and Approach

3.1 Valuation methodology changes

We have, in broad terms, maintained the core valuation methodology adopted at our previous valuation.

At this valuation, in light of the emerging experience in relation to mesothelioma claim numbers and the changes in mix of those claims, we have separately analysed (and set assumptions for) direct claims and cross claims.

Readers of this report are reminded that for mesothelioma claims, we have four separate age cohorts for which we set assumptions, namely

- <60 years of age;
- 60-70 years of age;
- 70-80 years of age; and
- 80+ years of age.

We have derived separate assumptions for direct claims and cross claims and for each of the four age cohorts for:

- estimated future claim numbers (including latency assumptions);
- average claim sizes;
- average legal costs; and
- nil settlement rates.

3.2 Overview of current methodology

The methodology involves assessing the liabilities in two separate components, being:

- Allowance for the cost of settling claims which have already been reported but have not yet been settled ("pending claims"); and
- Allowance for the cost of settling claims which have not yet been reported ("Incurred But Not Reported" or "IBNR" claims).

For pending claims, we have used the case estimates (where available) with some adjustments to reflect the extent to which the case estimates (on average) tend to overstate the ultimate cost. For IBNR claims we have used an "average cost per claim method".

In brief, the overall methodology may be summarised as follows:

- Project the future number of claims expected to be reported in each future year by disease type (for product and public liability) and for Workers Compensation and wharf claims taking into account the expected future incidence of mesothelioma and other diseases and also the past rate of co-joining of the Liable Entities;
- Analyse past average attritional claim costs of non-nil claims in mid 2019/20 money terms. We have defined attritional claims to be claims which are less than $1m in 2006/07 money terms. We estimate a baseline attritional non-nil average claim cost in mid 2019/20 money terms. This represents the Liable Entities' share of a claim rather than the total claim settlement;
- Analyse past historical average plaintiff/other and defendant legal costs for non-nil claim settlements;
- Analyse past historical average defendant legal costs for nil claim settlements;
- Estimate a "large claims loading" for mesothelioma claims by estimating the frequency, or incidence rate, and average claim size and legal cost sizes of such claims (being claims which are in excess of $1m in 2006/07 money terms);
- Project the pattern and incidence of future claims settlements from the claims reporting profile projected. This is done by using a settlement pattern derived from consideration of past experience of the pattern of delay between claim reporting and claim settlement for each disease type;
- Estimate the proportion of claims which will be settled with no liability against the Liable Entities by reference to past proportions of claims settled for nil claim cost (we refer to this as the "nil settlement rate");
- Inflate average claim, plaintiff/other and defence legal costs and large claim costs to the date of settlement of claims allowing for base inflation and (where applicable) superimposed inflation;
- Multiply the claims numbers which are expected to be settled for non-nil amounts in a period by the inflated average non-nil claim costs (including the "large claims loading") and plaintiff/other and defence legal costs for that period;
- Make allowance in defence legal costs for that proportion of settled claims which are expected to be settled for no liability but for which defence costs will be incurred;
- Inflate average defence legal costs of nil claims to the date of settlement of claims allowing for base inflation;
- Multiply the claims numbers which are expected to be settled for nil amounts in a period by the inflated average defence legal costs for nil claims for that period;

- Add the expected claims costs and legal payments relating to pending claims (after allowance for the potential savings on case estimates) after making allowance for the assumed settlement pattern of pending claims;
- This gives the projected future gross cashflow for each future financial year;
- Adjust the projected gross cashflow (where applicable) for the impact of the annual and aggregate caps on DDA reimbursements;
- Estimate the recoveries resulting from cross-claims made by the Liable Entities against other parties ("cross-claim recoveries");
- Project Insurance Recoveries to establish the net cashflows;
- Discount the cashflows using a yield curve derived from yields on Commonwealth Government Fixed Interest Bonds at the valuation date to arrive at our present value liability assessment.

It should be noted that this description is an outline and is not intended to be exhaustive in consideration of all the stages we consider or all investigations we undertake. Those other stages are outlined in more detail elsewhere in this Report and readers are advised to refer to those sections for a more detailed understanding of the process undertaken.

As discussed elsewhere, the liabilities are established on a central estimate basis.

3.3 Disease type and class subdivision

3.3.1 Claims records excluded from our analysis

We have excluded records that relate to cross-claims brought by the Liable Entities against other defendants. Where the cross-claim is brought as part of the main proceedings the claim is automatically counted in our analysis of the number of claims. However, where the cross-claim by the Liable Entities is severed from the main proceedings, the existence of a separate record in the claims dataset does not indicate an additional claim (or liability) against the Liable Entities. In these circumstances such claims records are not counted in our analysis.

We have also excluded "insurance recovery" claims records. This is because the insurance recovery record is a separate record that exists for claims records where an insurance recovery is due. In other words, the claim against the Liable Entity has already been included in our analysis and the insurance recovery record exists for operational purposes only.

3.3.2 Categories of claim

We have sub-divided the remaining claims into the following groups:

- Product and Public Liability;
- Workers Compensation, being claims by former employees of the Liable Entities; and
- Wharf claims, being claims by individuals whose occupations involved working on the docks or wharves, or where part of their exposure related to wharves.

3.3.3 Categories of disease

For product and public liability claims, we have separately analysed the individual disease types.

We have split the data by disease type for these claims, because there is sufficient volume of claims to do so, because different disease types display substantially different average claim sizes, and because the incidence pattern of future notifications is expected to vary between the different disease types.

We have not divided the Workers Compensation or wharf claims data by disease type, given their low financial significance and the reduced credibility of the data if sub-divided by disease type (given the low number of claims).

For the purposes of our analysis, we have allocated each claim once and therefore to one disease only. We have selected the following order of priority, based on the relative severity of the disease:

- Mesothelioma;
- Lung cancer / Other cancer;
- Asbestosis; and then
- Asbestos-Related Pleural Disease and Other ("ARPD & Other").

This means that if a product or public liability claim has mesothelioma as one of its listed diseases, it is counted as a mesothelioma claim. If a product or public liability claim has lung cancer or other cancer as one of its listed diseases (but not mesothelioma), it is counted as a lung cancer claim. If a product or public liability claim has asbestosis as one of its listed diseases, it is only counted as asbestosis if it has no reference to mesothelioma, lung cancer or other cancer as one of its diseases.

For mesothelioma, we have also separated claims based on the age of the claimant at the date of notification of the claim. We have used four age cohorts, namely:

- <60 years of age;
- 60-70 years of age;
- 70-80 years of age; and
- >80 years of age.

We have further separated mesothelioma between direct claims and cross claims.

3.4 Numbers of future claims notifications: mesothelioma

To project the pattern of incidence of claims against the Liable Entities, we have constructed a model which utilises the following inputs:

- The current Australian population by year of birth / current age and gender;
- Standard mortality rates by age and gender. This is used to project the population by year of birth / age at each future year;

- The relative risk-exposure (or incidence rates) between males and females;
- The relative risk-exposure by age of person at time of exposure;
- The exposure to asbestos in Australia;
- The statistical distribution of the latency period from average exposure separately for direct claims and cross claims, and by age of claimant, together with the underlying parameters (the mean and the standard deviation) of the latency model.

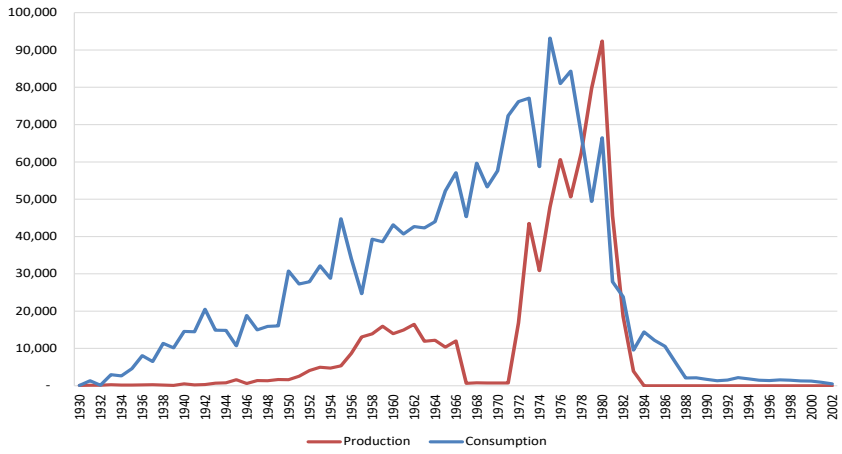
Detailed discussion of the approach taken is documented in our 31 March 2018 Annual Actuarial Report.

3.4.1 Exposure model

We have constructed a proxy for exposure by reference to statistics showing the levels of Australian usage of asbestos. We do not have detailed individual exposure information for the Liable Entities, its products or where the products were used and how many people were exposed to those products.

However, given the market share of James Hardie over the years (through to 1987) and its relative stability, we have used a national pattern of usage as a reasonable proxy for the Liable Entities' exposure.

Figure 3.1: Consumption and production indices – Australia 1930-2002



Source: World Mineral Statistics Dataset, British Geological Survey, www.mineralsuk.com
R Virta, USGS Website Annual Yearbook

There is an implicit assumption within the use of the consumption to derive the level of future claim notifications that:

- the consumption of asbestos is directly correlated with, and is a suitable proxy for, the number (and extent of exposure) of people exposed to asbestos in any year; and
- the rate of incidence of individuals developing an asbestos-related disease arising from exposure to asbestos is the same for each exposure year and is independent of the type of asbestos used.

3.4.2 Latency model

We have continued to assume that the latency pattern (from the average date of exposure) is statistically distributed with a normal distribution.

We have derived separate latency assumptions for mesothelioma as between direct claims and cross claims. The revised model projection assumptions are shown in the table below.

Table 3.1: Latency assumptions for mesothelioma claims

	Direct	Cross
Mean	39	41
Standard Deviation	9	10

The analysis supporting the selection of these parameters is summarised in Section 6.

3.4.3 Calibrating the curve index to current reporting experience

We take the claim curve index and then calibrate the number of notifications in each future year by reference to the recent levels of claims reporting and the number of claims we have assumed for the 2020/21 financial year. This approach implicitly assumes that:

- The future rate of incidence of asbestos-related diseases manifesting as a result of a past exposure to asbestos will remain stable;
- The pattern of diagnosis and the delay between diagnosis and reporting remain stable;
- The "propensity to claim" by individuals will remain stable; and
- The rate of co-joining the Liable Entities in common law claims will remain stable.

Changes to any of these factors over time will result in changes to the actual pattern of incidence of claims reporting.

The claim curve index also provides us with the proportions of the total number of claims reported in each future year that relate to each of the four age groups and separately for direct claims and cross claims for mesothelioma.

Our assumptions for the base number of claims projected to be reported in 2020/21 are summarised in Section 4.6 and Section 5.7.

3.5 Incidence of claim settlements from future claim notifications

We derive a settlement pattern by analysing triangulations of the numbers of settlements and claims payments by delay from the year of notification.

From these settlement pattern analyses, we have estimated the pace at which claims notified in the future will settle, and used this to project the future number, and monetary amount, of settlements in each financial year for each disease type.

Our analysis and assumptions selected are summarised in Section 9.5.

3.6 Average claim costs of IBNR claims

3.6.1 Attritional claims

We define a large claim as one for which the award is greater than or equal to $1m in 2006/07 money terms (which equates to approximately $1.67m in mid 2019/20 money terms).

We define an attritional claim as a non-nil, non-large claim. We define a nil claim as one for which the award payable by the relevant Liable Entity is zero.

We have estimated the following five components to the average cost assessment:

- Average award (sometimes including plaintiff legal costs) of a non-nil "attritional" claim.
- Average plaintiff legal / other costs of a non-nil "attritional" claim.
- Average defence legal costs of a non-nil "attritional" claim.
- Average defence legal costs of a nil claim.
- Large claim awards and legal cost allowances.

All of our analyses have been constructed using past average awards, which have been inflated to mid 2019/20 money terms using a historical base inflation index (of 4% per annum). This allows for basic inflation effects when identifying trends in historical average settlements. We then determine a prospective average cost in mid 2019/20 money terms, including an explicit allowance for overseas exposures resulting from the decision in *Talifero vs Amaca*.

Our analysis and assumptions are summarised in Section 7.

3.6.2 Large claims loading

We analyse the historical incidence rate of large claims (being measured as the ratio of the number of large claims to the total number of non-nil claims), and the average claim size and legal costs of these claims.

We use these to arrive at a "per claim" loading (being the average large claim cost multiplied by the large claim incidence rate per claim), being the additional amount we need to add to our attritional average claim size to allow for large claims.

We have derived separate incidence rate and average claim size assumptions for each of the four age groups for mesothelioma.

Our analysis and assumptions are summarised in Section 7.11.

3.6.3 Future inflation of average claim sizes

Allowance for future claim cost inflation is made. This is modelled as a combination of base inflation plus superimposed inflation. This enables us to project future average settlement costs in each future year, which can then be applied to the IBNR claims numbers as they settle in each future year.

Our analysis and assumptions in relation to claims inflation are summarised in Section 9.2.

3.7 Proportion of claims settled for nil amounts

We apply a "nil settlement rate" to the overall number of settlements to estimate the number of claims which will be settled for nil claim cost (i.e. other than in relation to defence legal costs) and those which will be settled for a non-nil claim cost.

The prospective nil settlement rate is estimated by reference to the analysis of past trends in the rate of nil settlements.

Our analysis and assumptions selected are summarised in Section 8.

3.8 Pending claims

3.8.1 Definition of pending claims

At 31 March 2020, there were 443 claims for which claim awards have not yet been fully settled by the Liable Entities. Additionally, there are a number of other claims for which defence legal costs have not yet been settled, even though the awards have been settled.

3.8.2 Evaluating the liability for pending claims

The excess amount of the liability for pending claims, over the case estimates held, is what the insurance industry terms Incurred But Not Enough Reported ("IBNER").

Depending on the case estimation procedure of a company and the nature of the liabilities, IBNER can be either positive or negative, with a negative IBNER implying that the ultimate cost of settling claims will be less than case estimates, i.e. that there is some degree of redundancy in case estimates.

3.8.3 Findings

The table below shows that there has been no deterioration compared to the estimates we previously adopted and are currently adopting (both of which have already made allowance for a 25% saving on case estimates).

Table 3.2: Change in cost of claims during 2019/20 financial year ($m) – claim award component only

Figures in $ millions	Current year reported claims	Prior year reported claims	Total
Estimates for pending claims at 31 March 2019 (undiscounted)	0.0	79.8	79.8
Paid in the year to 31 March 2020	81.2	64.8	146.0
Estimates for pending claims at 31 March 2020 (undiscounted)	62.4	11.1	73.5
Incurred Cost in the financial year	**143.6**	**(3.9)**	**139.6**

The table above shows that there has been a decrease of $3.9m in the cost of claims that were reported prior to 31 March 2019.

We have maintained our assumption for the level of redundancy in case estimates on currently reported claims at 25% at this valuation (March 2019: 25%). This assumption is only applied to the case estimates for the claim award.

3.9 Insurance Recoveries

Insurance Recoveries are defined as proceeds which are estimated to be recoverable under the product and public liability insurance policies of the Liable Entities, and therefore exclude any such proceeds from a Workers Compensation Scheme or Policy in which the Liable Entities participate or which the Liable Entities hold.

In applying the insurance programme we therefore consider only the projected gross cashflows relating to product and public liability claims.

Historical analysis of the claims data suggests that approximately 97.5% of all liability claims by cost have been product liability claims.

3.9.1 Programme overview

Until 31 May 1986, the Liable Entities had in place product and public liability insurance policies that were placed on a claims occurring basis.

Product liability claims were insured under these insurance policies on an "in the aggregate" basis whilst public liability claims were insured on an "each and every loss" basis.

From 31 May 1986, the insurance policies were placed on a claims made basis in relation to asbestos-related product and public liability cover.

In summary, the insurance policies were placed as follows:

- For the period up to June 1976, the insurance policies were written on a claims occurring basis. The insurance was provided by QBE but the cover provided by these policies was commuted in June 2000. Therefore we have assumed no future Insurance Recoveries from these policies.
- For the period from June 1976 to 31 May 1986, the insurance policies were written on a claims occurring basis; insured by Lloyds' of London, London Market insurers, Australian insurers and HIH entities.
- For the period 31 May 1986 to 31 March 1997, the insurance policies were written on a claims-made basis. For the purpose of this Report, we have made no allowance for any future Insurance Recoveries arising from these policies.

3.9.2 Modelling insurance recoveries on the claims occurring programme

Our methodology for projecting the future insurance recoveries to be collected by AICFL involves the following steps:

- Identify the current contract positions for each insurance policy year. This assumes that all monies due have been collected, and does not allow for the impact of commutations that have taken place.
- Allocate the projected future gross cashflows to individual insurance policy years using an allocation basis that has been determined by reference to the exposure methodology used to project future claim numbers and also using a "period of exposure" allocation.
- This gives a projection of how the insurance programme is utilised over time.

This method allows us to:

- evaluate the total insurance recoveries due by payment year;
- determine how the insurance recoveries due will be assigned to each layer and to each insurer; and
- identify and allow for when the individual layers are projected to be fully exhausted.

We then make an additional adjustment to the projected recoveries to exclude those projected future insurance recoveries that are assigned to the participations of insurers who have already commuted their coverage with AICFL and the Liable Entities or insurers who have settled their coverage by way of a Scheme of Arrangement.

3.9.3 Commutations, HIH and Schemes of Arrangement

Other commutations have been entered into by AICFL in previous years and these commutations have typically (other than QBE) involved the payment of a lump sum amount.

In these circumstances, we have assumed that the insurance liabilities of that company to the Liable Entities have been fully discharged and no further recoveries will fall due.

Additionally, we have assumed that all monies have been paid in relation to insurance recoveries for the claims occurring period from HIH.

For the claims occurring period, where a claim filed against a company under a Scheme of Arrangement has been accepted and payment made, we have assumed that the insurance liabilities of that company to the Liable Entities have been fully discharged and no further recoveries will fall due.

We have made no allowance or adjustment in our valuation for any other future commutations with the remaining insurers.

3.9.4 Unpaid insurance recoveries

We have not included within our liability estimate any allowance for insurance recoveries under the claims occurring period that are due but have not yet been collected.

We are advised that such monies amount to approximately $2m at 31 March 2020.

These amounts are more appropriately dealt with as being debtors of AICFL.

3.9.5 Bad and doubtful debt allowance on Insurance Recoveries

We have made allowance for bad and doubtful debts on future Insurance Recoveries within our valuation by use of the default rates as shown in the table below.

Table 3.3: Credit rating default rates by duration

Rating	Yr. 1	Yr. 2	Yr. 3	Yr. 4	Yr. 5	Yr. 6	Yr. 7	Yr. 8	Yr. 9	Yr. 10	Yr. 11	Yr. 12	Yr. 13	Yr. 14	Yr. 15
AAA	0.00%	0.03%	0.13%	0.24%	0.35%	0.45%	0.51%	0.59%	0.65%	0.70%	0.73%	0.76%	0.79%	0.85%	0.92%
AA+	0.00%	0.05%	0.05%	0.10%	0.15%	0.21%	0.26%	0.32%	0.38%	0.44%	0.50%	0.56%	0.62%	0.69%	0.76%
AA	0.02%	0.03%	0.08%	0.22%	0.36%	0.48%	0.60%	0.71%	0.80%	0.89%	0.97%	1.03%	1.14%	1.20%	1.27%
AA-	0.03%	0.08%	0.17%	0.25%	0.32%	0.44%	0.50%	0.55%	0.61%	0.66%	0.72%	0.79%	0.81%	0.85%	0.90%
A+	0.05%	0.09%	0.20%	0.33%	0.43%	0.53%	0.64%	0.76%	0.89%	1.03%	1.17%	1.31%	1.47%	1.66%	1.83%
A	0.06%	0.14%	0.23%	0.35%	0.48%	0.65%	0.83%	1.00%	1.19%	1.41%	1.59%	1.73%	1.86%	1.95%	2.12%
A-	0.06%	0.16%	0.26%	0.38%	0.54%	0.70%	0.93%	1.10%	1.23%	1.34%	1.45%	1.58%	1.71%	1.83%	1.92%
BBB+	0.10%	0.29%	0.50%	0.73%	0.97%	1.25%	1.46%	1.68%	1.93%	2.17%	2.41%	2.58%	2.80%	3.07%	3.37%
BBB	0.16%	0.41%	0.64%	1.01%	1.36%	1.72%	2.04%	2.36%	2.72%	3.08%	3.46%	3.77%	4.01%	4.12%	4.33%
NR	3.66%	7.13%	10.12%	12.56%	14.55%	16.18%	17.55%	18.69%	19.70%	20.62%	21.39%	22.02%	22.60%	23.13%	23.65%
R	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Source: Standard & Poors' 2018 Annual Global Corporate Default Study and Rating Transitions.
NR relates to companies which are Not Rated
R relates to companies which have been subject to Regulatory Action regarding solvency.

We have considered the credit rating of the insurers (and/or their parent companies) of the Liable Entities as at March 2020 and applied the relevant credit rating default rates to the expected future cashflows by year, treaty and insurer.

3.10 Cross-claim recoveries

A cross-claim can be brought by, or against, one or more Liable Entities. Cross-claims brought against a Liable Entity ("Contribution Claims") are included in our analysis of the claims experience.

Cross-claims brought by a Liable Entity relate to circumstances where the Liable Entity seeks to join (as a cross-defendant) another party to the claim in which the Liable Entity is already joined.

Our approach in the valuation has been to separately value the rate of recovery ("cross-claims recovery rate") as a percentage of the gross award based on historical experience of such recoveries.

Our analysis and assumptions selected are summarised in Section 9.4.

3.11 Discounting cashflows

Cashflows are discounted on the basis of yields available at the valuation date on Commonwealth of Australia fixed interest Government Bonds ("Commonwealth Government Bonds") of varying coupon rates and durations to maturity.

Our approach to the determination of the discount rates is broadly unchanged from the approach adopted at 31 March 2019, and is:

- For years 1 to 16, zero coupon spot rates were determined by reference to the prices, coupons and durations of Commonwealth Government Bonds;
- For years 19 and onwards, we have selected a uniform long-term discount rate of 4.00% per annum (FY2019: 4.50% per annum); and
- For years 17 and 18, we have selected spot rates that "linearly interpolate" between the year-16 rate and the year-19 rate (of 4.00%).

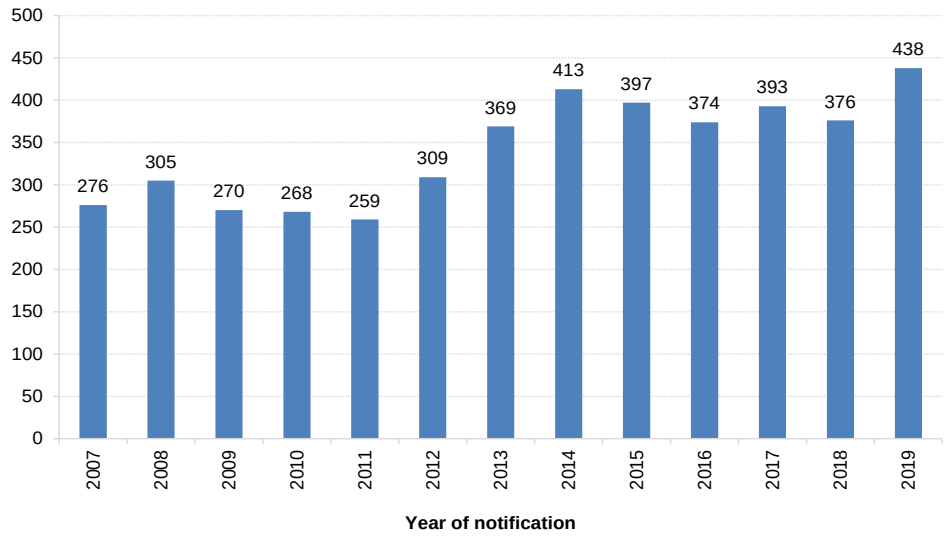
Our selected assumptions are summarised in Section 9.3.

4. Claims Experience: Mesothelioma Claim Numbers

4.1 Overview

The following chart shows the number of mesothelioma claims reported by year of notification.

Figure 4.1: Number of mesothelioma claims reported annually



Note: Throughout Sections 4 to 9, the date convention used in tables and charts is that (for example) 2008/09 indicates the financial year running from 1 April 2008 to 31 March 2009. Furthermore, unless clearly identifying a calendar year, the label "2008" in charts or tables would indicate the financial year running from 1 April 2008 to 31 March 2009.

For 2019/20, there were 438 mesothelioma claims reported. This represented a 16% increase relative to the prior year.

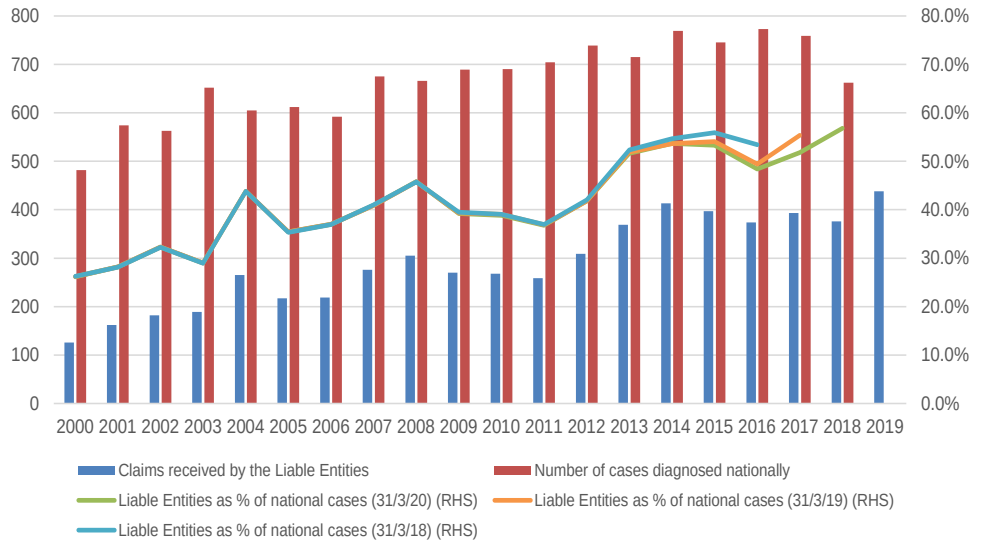
4.2 External statistics on mesothelioma claims incidence

The following chart compares the total number of mesothelioma cases reported (diagnosed) nationally to the number of mesothelioma claims received by the Liable Entities.

It should be noted that the two sets of data correspond to different definitions of year and so are not directly comparable and some caution should be exercised.

The "year" is calendar year for the national cases (i.e. 2012 is the year running from 1 January 2012 to 31 December 2012); whilst for the Liable Entities it is the financial year (i.e. 2012 is the year running from 1 April 2012 to 31 March 2013).

Figure 4.2: Number of mesothelioma cases reported nationally compared to the number of claims received by the Liable Entities



Sources: Australian Cancer Incidence and Mortality book for Mesothelioma, Australian Institute of Health and Welfare, updated February 2018 for 2000-2013

Annual Report of the Australian Mesothelioma Registry for 2014 and onwards

The annual number of mesothelioma cases diagnosed nationally was relatively stable for the period 2007 to 2011 varying between 666 and 704 cases.

In calendar year 2018, the number of cases diagnosed nationally (as currently reported) fell to 662. It should be noted there may be a considerable degree of under-reporting in the 2018 year and, to a lesser extent, the 2017 year, noting that:

- The 2015 year was first reported as 650, and this increased to 710 (as reported in the 2016 Australian Mesothelioma Registry Report), then to 734 (as reported in the 2017 Australian Mesothelioma Registry Report), and now to 745 (as reported in the 2018 Australian Mesothelioma Registry Report).
- The 2016 year was first reported as 700, and this increased to 757 (as reported in the 2017 Australian Mesothelioma Registry Report), and now to 773 (as reported in the 2018 Australian Mesothelioma Registry Report).

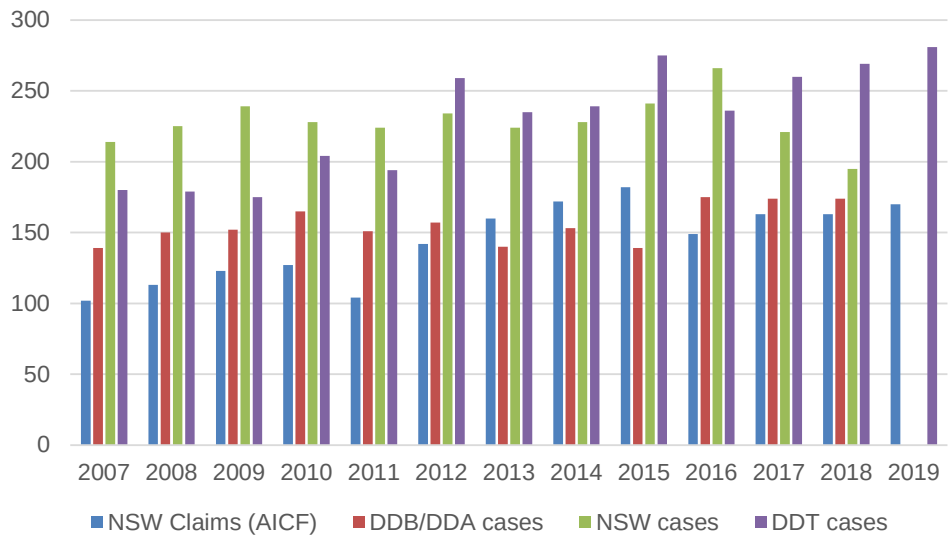
These increases in national statistics lead to a lower ratio for the number of Liable Entity claims as a percentage of the number of national cases of mesothelioma. As a consequence the currently estimated 57% for 2018/19 may be over-stated and (if previous experience of initial under-reporting of the number of national cases were to recur) may be more in the order of 50%.

It should be noted that not all cases of mesothelioma result in a claim being brought in Common Law. Furthermore, even if a claim is brought, not all claims will involve the Liable Entities.

In relation to NSW, we have additional information from the Dust Diseases Tribunal (NSW) that indicates what proportion of common law claims the Liable Entities are joined in for NSW.

For the DDB/DDA data, the "year" is financial year (i.e. 2012 is the year running from 1 July 2012 to 30 June 2013). In contrast, in the DDT data, "year" is defined as a calendar year (i.e. 2012 is the year running from 1 January 2012 to 31 December 2012). It should be noted that the four sets of data correspond to different definitions of year and so are not directly comparable and some caution should be exercised.

Figure 4.3: Number of mesothelioma cases reported in NSW



Sources: NSW Central Cancer Registry Reporting Module, 2012 for 2007-2012.
Australian Mesothelioma Registry for 2013-2018.
Insurance and Care NSW Annual Report 2018-19.
DDT statistics provided by the State of New South Wales

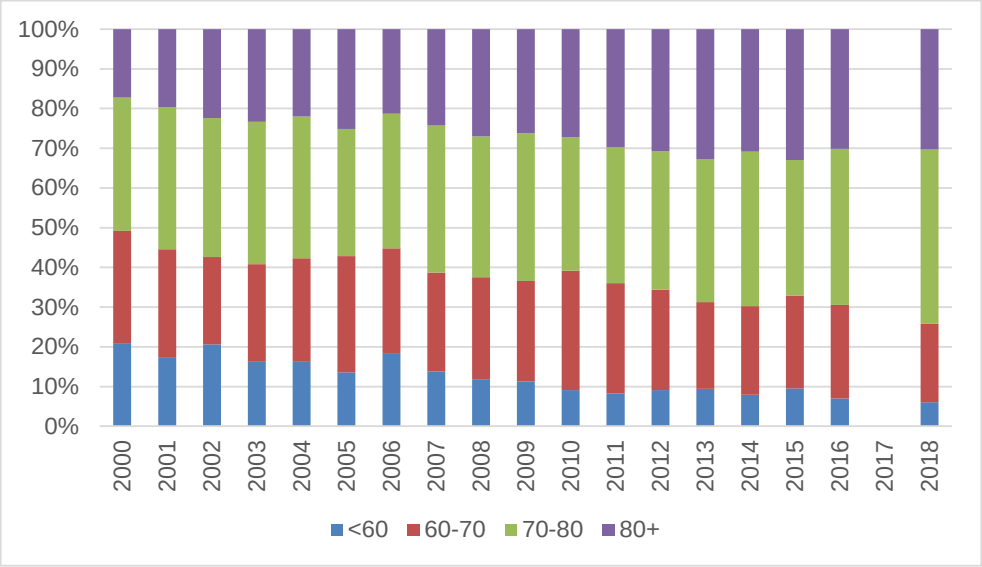
The chart shows that whilst the number of NSW cases of mesothelioma has been relatively stable across the period since 2007/08, other than the 12% increase in 2016 and the consequential reductions in 2017 and 2018, the number of common law DDT cases has risen by 56% between 2007 and 2019. The Liable Entities have experienced a broadly similar rate of growth in claim numbers in that same period.

The data would appear to indicate that the Liable Entities are not being increasingly joined in common law claims in NSW, nor that there is necessarily an increasing prevalence of mesothelioma in NSW, but rather that the proportion of people being diagnosed who then

bring a common law claim is the primary factor leading to the increases in claim numbers that have been observed in the last ten years (i.e. there has been an increase in the propensity to claim).

The chart below shows the mix of national cases by age. The data shows a broadly similar pattern to AICF's own experience, with the proportion of cases relating to people under 70 years of age trending down and currently comprising around 25% of all cases.

Figure 4.4: Age profile of mesothelioma cases nationally



Sources: Australian Institute of Health and Welfare; Australian Mesothelioma Registry Report

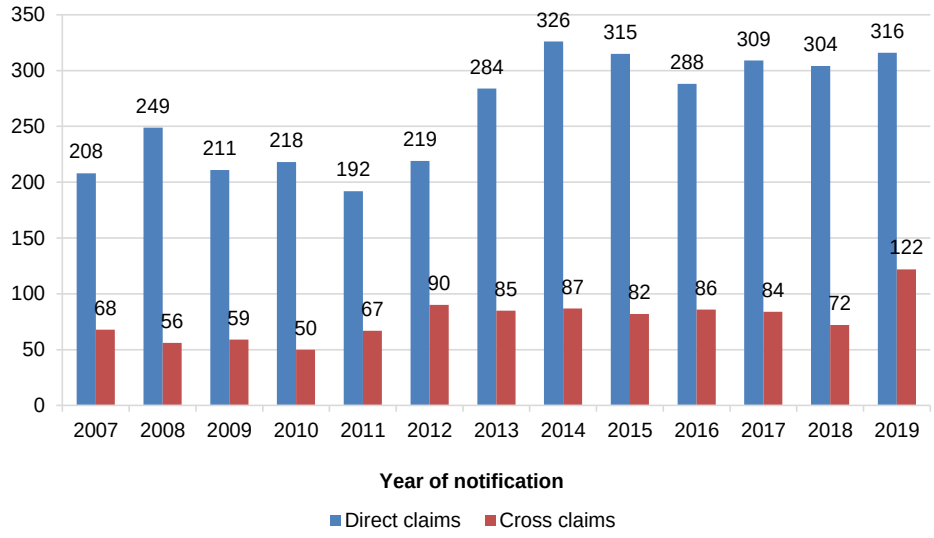
Note: Data by age cohort for 2017 was not published in the 2017 Australian Mesothelioma Registry Report

4.3 Profile of mesothelioma claims

4.3.1 Direct claims and cross claims

The following chart shows the number of claims separately as between claims brought by claimants ('direct claims') and claims brought by other defendants ('cross claims').

Figure 4.5: Number of mesothelioma claims by type of claim



Both direct and cross claims have experienced an increase in the number of claims in 2019/20 at 316 and 122 respectively.

However, the most notable of these was the increase in cross claims from 72 claims in 2018/19 to 122 claims in 2019/20.

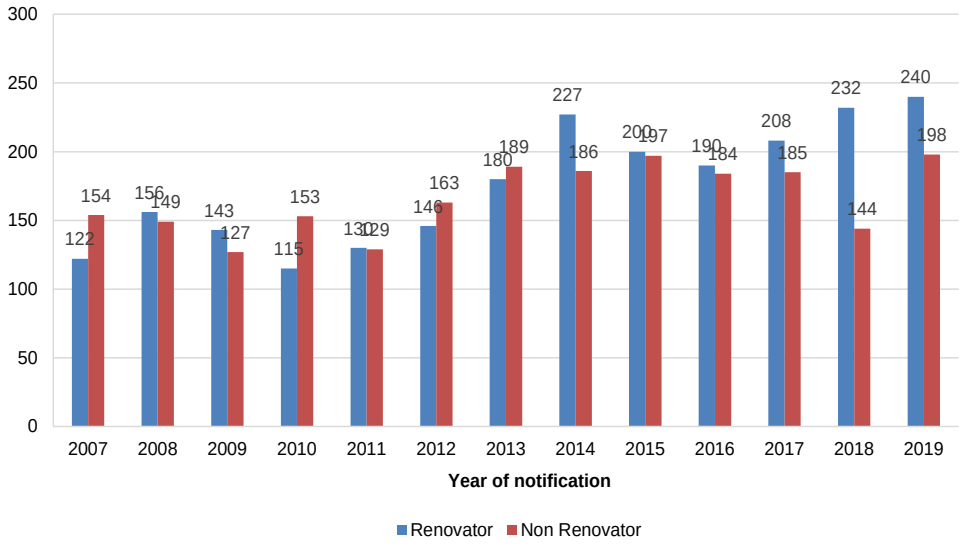
4.3.2 Source of claims

Renovator claims can involve both short periods and long periods of exposure and the definition used in the chart below also includes other family and home exposures (e.g. family members involved in washing clothes of people who were using asbestos products).

The number of renovator claims in 2019/20 has shown a material increase since 2016/17, to the highest level historically observed.

For non-renovator claim, the number of claims has also significantly increased relative to the favourable experience in 2018/19; reverting back to the level observed in 2015/2016. The increase this year is primarily related to the high cross claims reporting activity.

Figure 4.6: Number of mesothelioma claims by source of claim



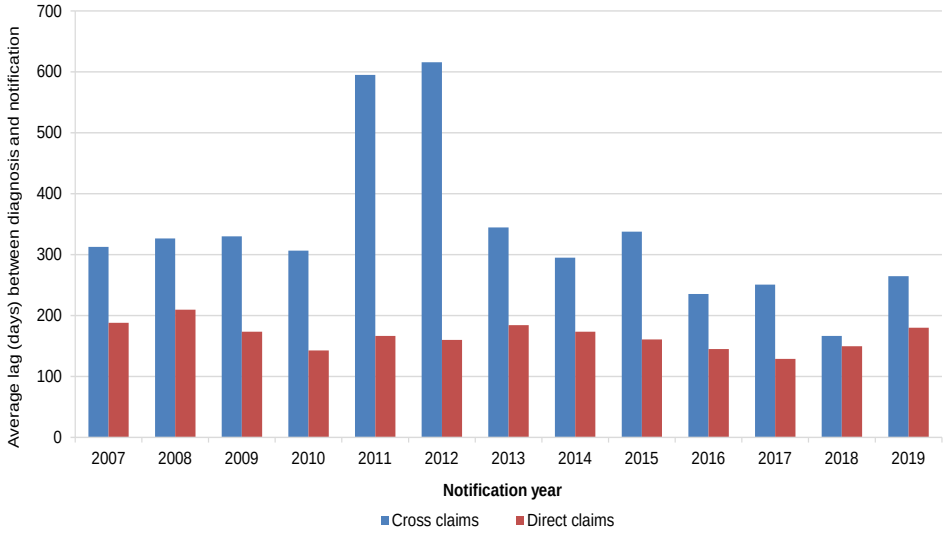
4.3.3 Delay from diagnosis to notification

The chart below measures the time-lag (in days) from diagnosis of mesothelioma to notification of a claim against the Liable Entities.

Direct claims have typically taken between 5 months and 7 months to be reported after diagnosis of mesothelioma.

The increase in the time-lag for cross claims in 2019/20 is primarily a function of a number of claims relating to South Australian power stations involving two cross-claimants.

Figure 4.7: Delay from diagnosis of mesothelioma to notification of claim against the Liable Entities



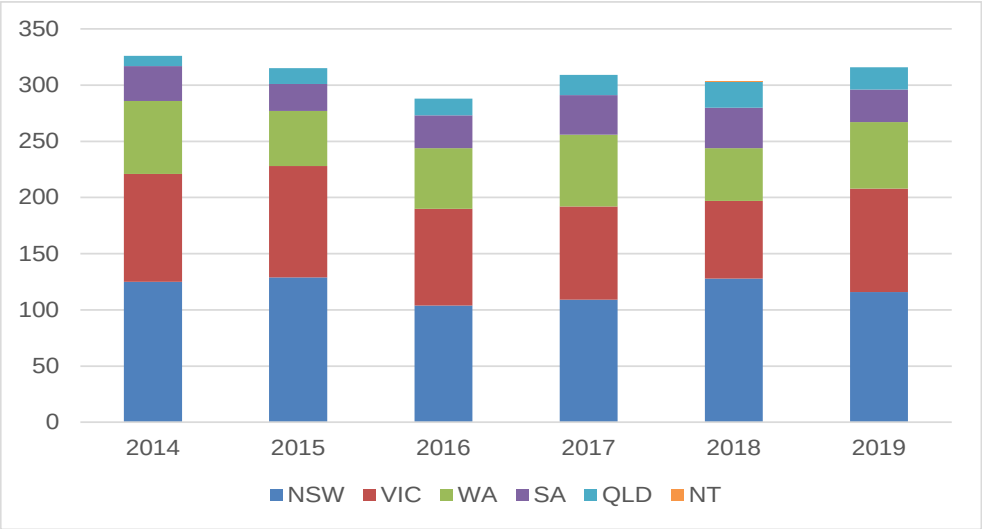
4.4 Profile of mesothelioma claims: direct claims

4.4.1 Claims by State

Claims reporting for direct claims has varied between 288 and 326 claims in the last six years.

NSW remains the most significant State in terms of the numbers of direct claims, at between 35% and 40% of direct claims. After two favourable years of experience, Victoria has reverted to prior observed levels.

Figure 4.8: Number of mesothelioma direct claims by State

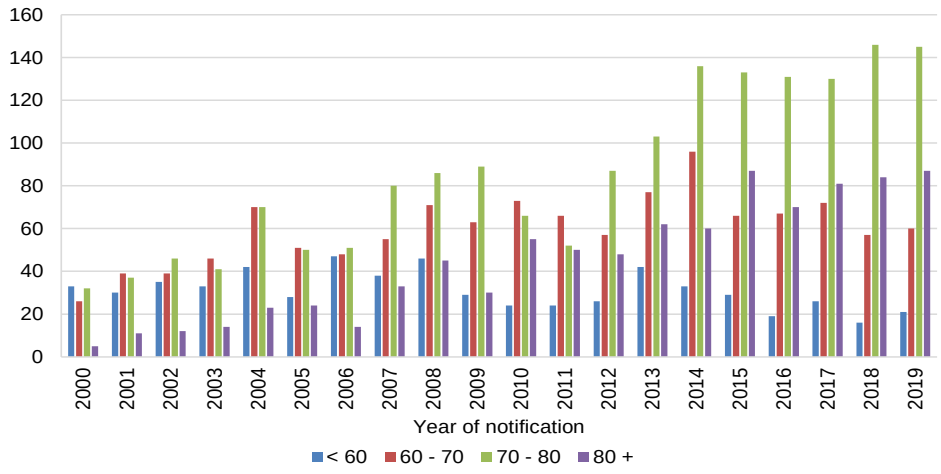


4.4.2 Age profile of claimants

The chart below shows that the primary source of growth since 2007/08 has been for claimants over the age of 70.

Since 2007/08, the total number of claims for claimants under the age of 70 has been relatively stable, whilst the number of claims for claimants over 70 have more than doubled.

Figure 4.9 Number of mesothelioma direct claims by age of claimant

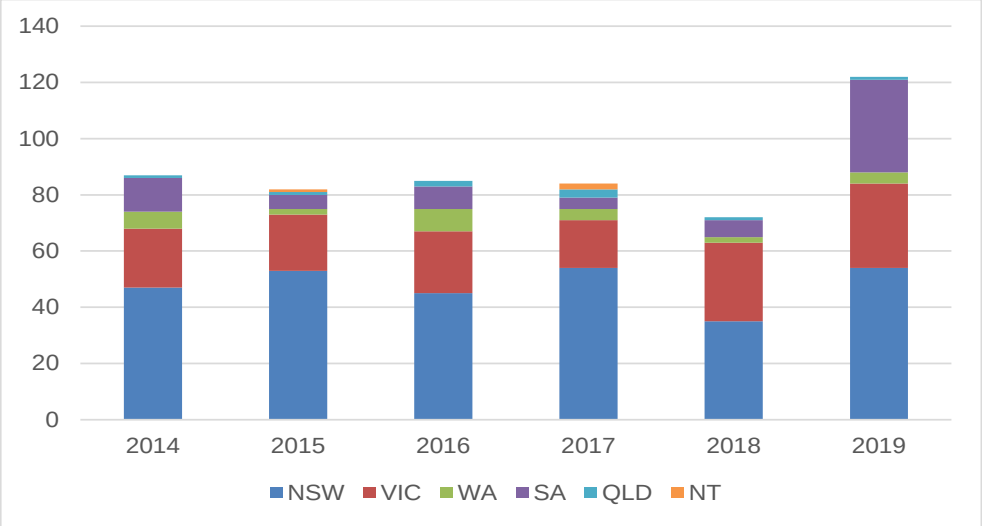


4.5 Profile of mesothelioma claims: cross claims

4.5.1 Claims by State

We have analysed the number of mesothelioma claim notifications by the State in which the cross claim is filed.

Figure 4.10: Number of mesothelioma cross claims by State



In 2019/20, NSW recorded its joint-highest level of claims reporting for cross claims (at the same level as 2017/18). Victoria also recorded its highest level of claims reporting for cross-claims.

Notwithstanding these two features, the most material increase in cross claims reporting emerged from South Australia and most notably a significant number of claims relating to power station exposures.

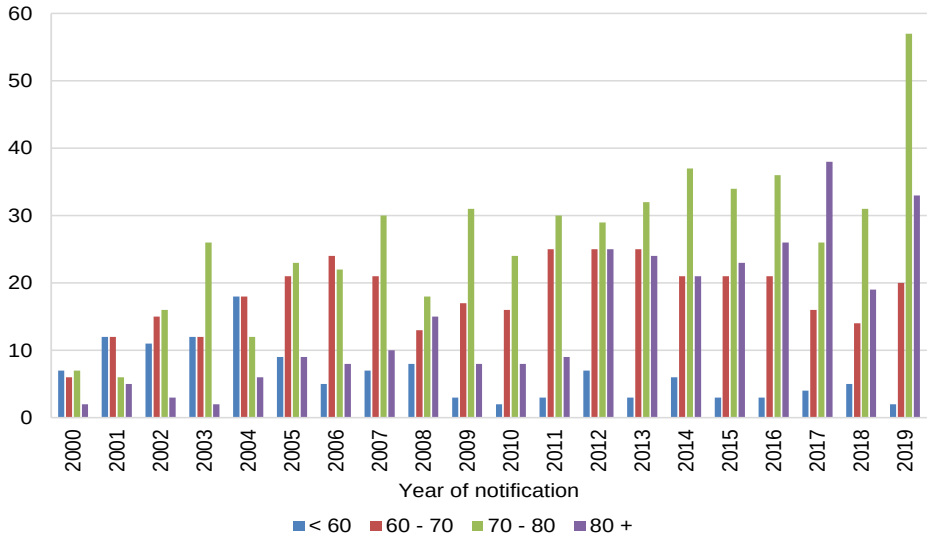
There were 14 claimants where "duplicate claims" arose (i.e. 2 cross claims were lodged for each claimant). We understand that a number of these claims related to claims that were brought against the other entities up to 7 years ago and the lodgement of these cross claims against the Liable Entities was pending resolution of a legal matter that did not involve the Liable Entities.

It is also expected that some of these claims may give rise to either a sharing of the potential liability or the recovery of monies by Amaca (by way of separate cross-claim action) given the claims relate to the Hardie-BI joint venture.

4.5.2 Age profile of claimants

The chart below shows that the primary source of growth in 2019/20 has been for claimants over the age of 70.

Figure 4.11: Number of mesothelioma cross claims by age of claimant



It is clearly observable that there has been a material increase in the number and proportion of claimants aged 70-80 and 80+. Analysis indicates that this growth in claim volumes is primarily from South Australia and relates to the power station claims.

As noted later in this document, the variation in claim size by age for cross-claimants appears to be less significant than it is for direct claimants. In other words, age mix by cross-claimants is not as substantial a factor to the overall valuation when compared with age mix for direct claims, albeit there is still some variation by age cohort.

4.6 Base valuation assumption for number of mesothelioma claims

The actual claims reporting experience in 2019/20 has been 16% higher than expectations for 2019/20 in relation to overall mesothelioma claim numbers.

At the 31 March 2020 valuation, we have considered it appropriate to set assumptions separately for direct and cross claims and for each of the four age cohorts.

The number of direct claims (at 316 claims) has been approximately 5% higher than expectations and 4% higher than the previous year. Additionally, the experience across the last six years has varied between 288 and 326 claims.

We have set our assumption for direct claims for 2020/21 at 312 claims, being broadly equal to the average of the last three years of claims reporting activity.

The number of cross claims (at 122 claims) was far beyond levels previously experienced. It is not clear if this level of claims reporting was a one-off or will continue in future years. Additionally, we have also observed that of the 33 cross claims from South Australia, there are 14 claimants with "duplicate claims" (i.e. where there are 2 claim records for each claimant).

In this context, and noting this is also the first year of this heightened level of cross claims reporting, we have selected an assumption of 108 cross claims for 2020/21.

In total, we are therefore projecting 420 mesothelioma claims to be reported in 2020/21.

The table below summarises the overall assumptions and the mix assumptions by age cohort for 2020/21, as well as providing a comparison of the previous two years' actual experience.

Table 4.1: Assumed mix of claims by age cohort and type of claim for 2020/21

	FY21 Assumption	FY21 Assumption	FY20 Actual	FY20 Actual	FY19 Actual	FY19 Actual
	Numbers	%	Numbers	%	Numbers	%
Mesothelioma (direct claims)	**312**		**316**		**304**	
<60	21	6.7%	21	6.6%	16	5.3%
60-70	63	20.2%	60	19.0%	57	18.8%
70-80	144	46.2%	145	45.9%	146	48.0%
80+	84	26.9%	87	27.5%	84	27.6%
age not known	0	0.0%	3	0.9%	1	0.3%
Mesothelioma (cross claims)	**108**		**122**		**72**	
<60	3	2.8%	2	1.6%	5	6.9%
60-70	21	19.4%	20	16.4%	14	19.4%
70-80	51	47.2%	57	46.7%	31	43.1%
80+	33	30.6%	33	27.0%	19	26.4%
age not known	0	0.0%	10	8.2%	3	4.2%

4.7 Inherent uncertainties in the future number of mesothelioma claims

There remain material uncertainties in relation to the base level of claims reporting and the total future number of mesothelioma claims to be reported against the Liable Entities.

It is possible that claims reporting activity could increase next year, or fall next year.

There remain uncertainties in relation to the peak period of claims reporting for mesothelioma, particularly given that 2019/20 saw the highest number of mesothelioma claims received historically, albeit primarily this was due to the extremely high level of cross-claims reporting.

Additionally, it is unclear whether this level of cross claims reporting is a one-off feature or will recur in future years.

There also remain material uncertainties as to the pace at which future claims reporting will reduce ("the decay rate") as well as the rate of co-joining of the Liable Entities in common law claims.

Additionally, should the mix of claims by claimant age or the mix between direct claims and cross claims change relative to that currently assumed, the overall average claim sizes emerging would differ from that currently expected.

Depending on the outcome of future experience, further changes to the valuation assumptions and therefore to the valuation results may be necessary in future periods. Such changes could be material.

As a consequence of the above noted uncertainties, further volatility in relation to the valuation result should be anticipated.

Section 11 of our Report provides an indication of the sensitivity of the valuation result to the peak period and the decay rate of mesothelioma claims reporting after 2020/21.

5. Claims Experience: Claim numbers (non-mesothelioma)

5.1 Overview

The table below shows the number of claims reported by year of notification and by disease category.

Table 5.1: Number of claims by disease type

Notification Year	Asbestosis	Lung Cancer	ARPD & Other	Wharf	Workers
2007	171	28	43	8	46
2008	163	40	44	11	59
2009	120	40	43	3	61
2010	141	13	36	8	30
2011	110	15	36	6	30
2012	128	33	38	7	27
2013	117	26	49	15	32
2014	143	25	39	11	34
2015	91	19	30	11	29
2016	97	18	33	11	24
2017	87	26	28	8	20
2018	103	15	39	13	22
2019	136	25	33	4	21
2007-2019	1,607	323	491	116	435
All Years	2,620	672	860	246	1,448

5.2 Asbestosis claims

In 2019/20, there were 136 asbestosis claims reported: the highest level since 2014/15.

The last three years have averaged 109 claims and the last four years have averaged 106 claims.

In selecting our assumption for 2020/21, we have (in broad terms) taken the average of the last three years as a base level.

We have assumed 108 asbestosis claims will be reported in 2020/21.

In doing so, we have not given significant weight to the 2019/20 experience so far, noting the favourable experience of the previous four years; instead therefore treating 2019/20 as a one-off at this stage. Should experience remain elevated in 2020/21, this assumption would likely need to increase further.

5.3 Lung cancer claims

In 2019/20, there were 25 lung cancer claims reported.

The last three years have averaged 22 claims and the last four years have averaged 21 claims.

We have assumed 24 lung cancer claims will be reported in 2020/21.

5.4 ARPD & Other claims

In 2019/20, there were 33 ARPD & Other claims reported.

The last three years have averaged 33 claims and the last four years have averaged 33 claims.

We have assumed 36 ARPD & Other claims will be reported in 2020/21.

5.5 Workers Compensation claims

In 2019/20, there were 21 Workers Compensation claims reported.

The last four years have varied between 20 and 24 claims.

We have assumed 24 Workers Compensation claims will be reported in 2020/21.

It should be noted that the financial impact of this source of claim is not substantial to the Liable Entities given the proportion of claims which are settled for nil liability against the Liable Entities (typically above 90%), which results from the insurance arrangements in place.

5.6 Wharf claims

In 2019/20, there were 4 Wharf claims reported.

The previous six years varied between 8 claims and 15 claims.

We have assumed 12 wharf claims will be notified in 2020/21.

Again, the financial impact of this source of claim is not currently significant.

5.7 Summary of base claims numbers assumptions (including mesothelioma)

As outlined in Sections 4 and 5, our assumptions as to the number of claims to be reported in 2020/21 are as follows:

Table 5.2: Claim numbers experience and assumptions for 2020/21

	FY19 actual	FY20 actual	FY20 expected	FY21 assumption
Mesothelioma	376	438	378	420
Asbestosis	103	136	96	108
Lung Cancer	15	25	21	24
ARPD & Other	39	33	33	36
Wharf	13	4	12	12
Worker	22	21	24	24
Total	**568**	**657**	**564**	**624**

FY20 Expected is the assumption selected for 2019/20 in our previous valuation report.

5.8 Baryulgil

Almost half of the claims settled which relate to asbestos mining activities at Baryulgil (as discussed previously in Section 1.2.3) have been settled with no liability against the Liable Entities; and for the remaining settled claims, the Liable Entities have typically borne one-third to one-half of the settlement amount, reflecting the contribution by other defendants to the overall settlement (including those which have since been placed in liquidation).

For the purposes of our valuation, we have estimated there to be 8 future claims reported, comprising 5 mesothelioma claims and 3 non-mesothelioma claims.

We have assumed average claims and legal costs broadly in line with those described in Section 7.

Our projected liability assessment at 31 March 2020 of the additional provision (for claims not yet reported) that could potentially be required is an undiscounted liability of $2.2m and a discounted liability of $2.1m, all of which is deemed to be a liability of Amaca.

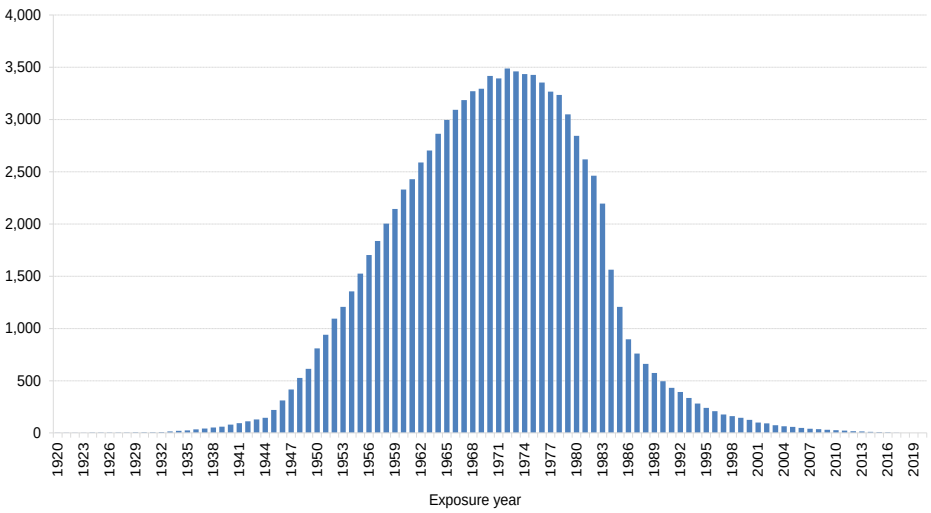
6. Exposure and Latency Experience and Incidence Pattern Assumptions

6.1 Mesothelioma claims experience

6.1.1 Exposure information from claims notified to date

We have reviewed the actual exposure information available for claims notified to date. This has been conducted by using the exposure dates stored in the claims database at an individual claim level and identifying the number of person-years of exposure in each exposure year.

Figure 6.1: Exposure (person-years) of all Liable Entities' mesothelioma claimants to date



The chart shows that, currently, the peak year of exposure for claims reported to date is in 1972.

It should be recognised that there is a degree of bias in this analysis in that the claims notified to date will tend to have arisen from the earlier periods of exposure.

Over time, we expect the right-hand side of this curve to develop and the peak year of exposure to trend towards the early-1970s to mid-1970s, and an increase in the absolute level at all periods of exposure as more claims are notified and the associated exposures from these are included in the analysis.

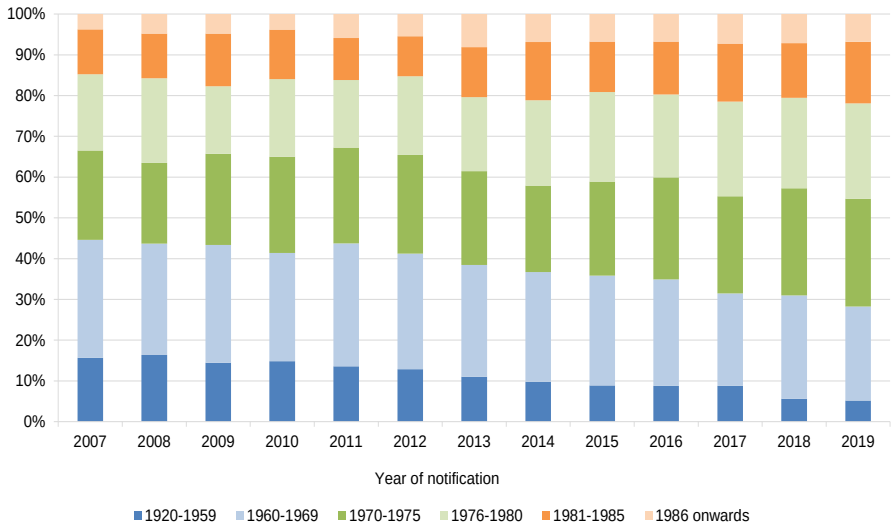
The relatively low level of exposure from 1987 onwards (about 5% of the total) is not unexpected given that all asbestos products ceased being manufactured by the Liable Entities by 1987. The exposure after that date likely results from usage of products already produced and sold before that date.

The chart above is a cumulative chart of the position to date and does not show trends in the allocation of claims to exposure years over time.

For example, one would expect that more recently reported claims should be associated with, on average, later exposures; and that claims reported in future years would continue that trend towards later exposure periods.

To understand better these trends, we have modelled claimants' exposures for each past claim report year.

Figure 6.2: Exposure (person years) of all mesothelioma claimants to date by report year and exposure period



As can be seen in the chart above, there has been a general increasing shift towards the exposure period after 1970, evident by the downwards trends in the chart from left to right indicating that an increasing proportion of the claimants' exposure relates to more recent exposure periods.

For example, pre-1970 exposures made up approximately 45% of mesothelioma claims exposures in 2007/08 but less than 30% of claims exposures in 2019/20.

We would expect that such a trend (towards claims emerging from later exposure periods) should continue for some time to come.

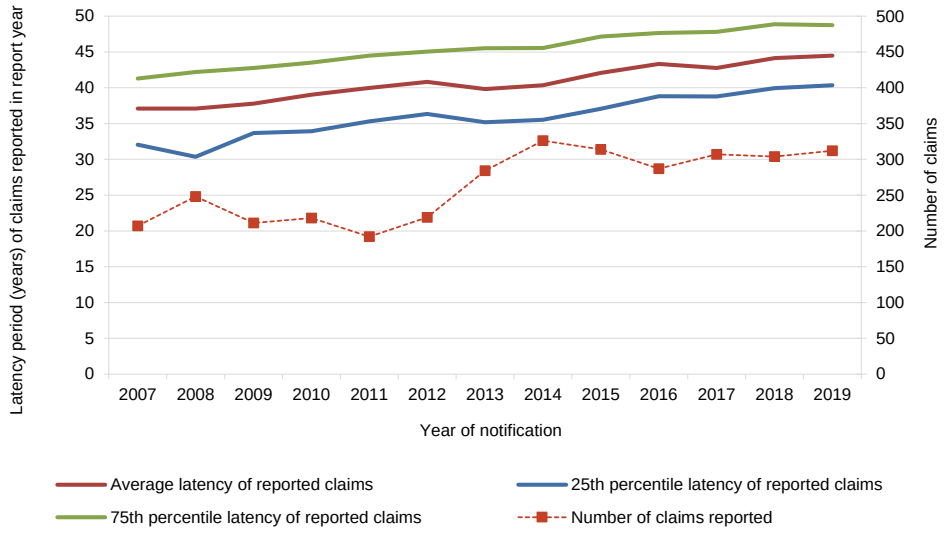
6.2 Mesothelioma: direct claims

6.2.1 Latency period of reported claims

We have analysed the actual latency period of the reported claims of the Liable Entities. In the charts that follow, we have measured the average actual latency period from the average date of exposure to the date of notification of a claim.

The chart below shows the average latency observed for mesothelioma claims and the 25th percentile and 75th percentile observations.

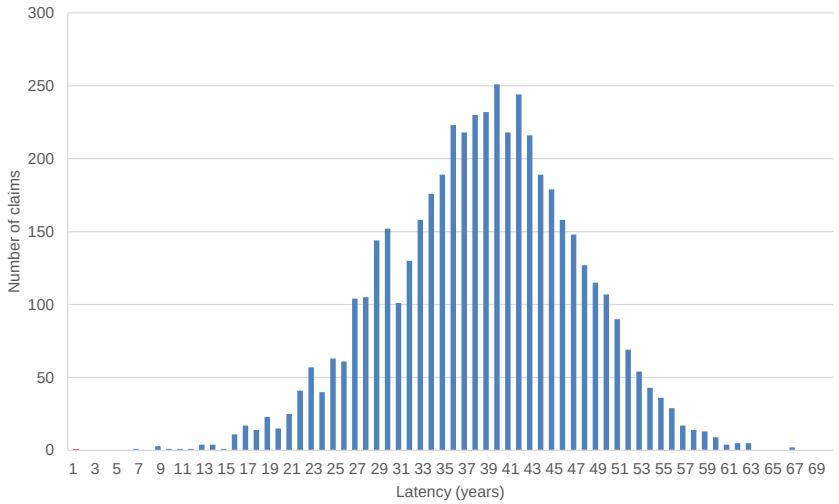
Figure 6.3: Latency of mesothelioma direct claims



The observed average latency period from the average exposure is currently approximately 44 years for direct claims, increasing at about 0.6 years for each passing year.

The observed average latency of claims reported in future report years should also be expected to show a further upward trend in the coming years.

Figure 6.4: Latency distribution of mesothelioma direct claims

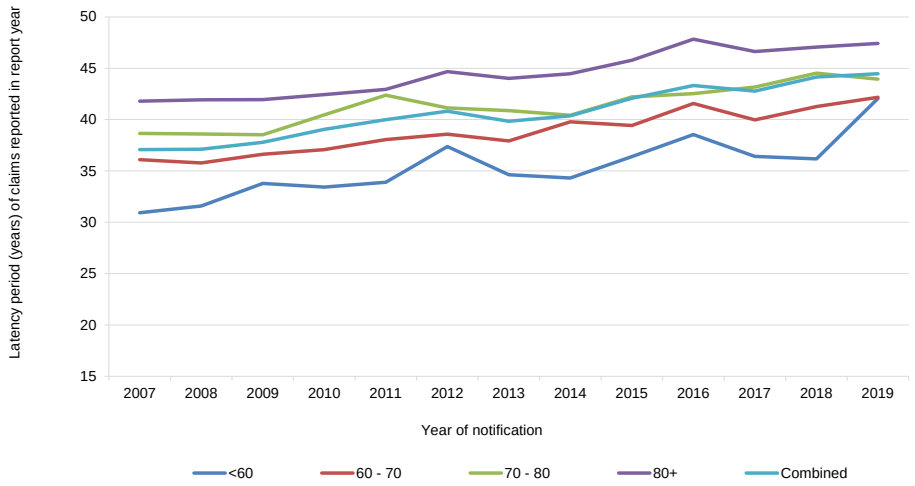


Our latency model assumes a "normal distribution" and the chart seems to (in broad terms) support that assumption at this time.

For direct claims, the mean latency to date is 39 years, the median latency to date is 39 years, and the mode of the latency is 40 years. The standard deviation is around 8.6 years.

The following chart shows how the average reported latencies vary between each of the age groups.

Figure 6.5: Latency of mesothelioma direct claims by age of claimant

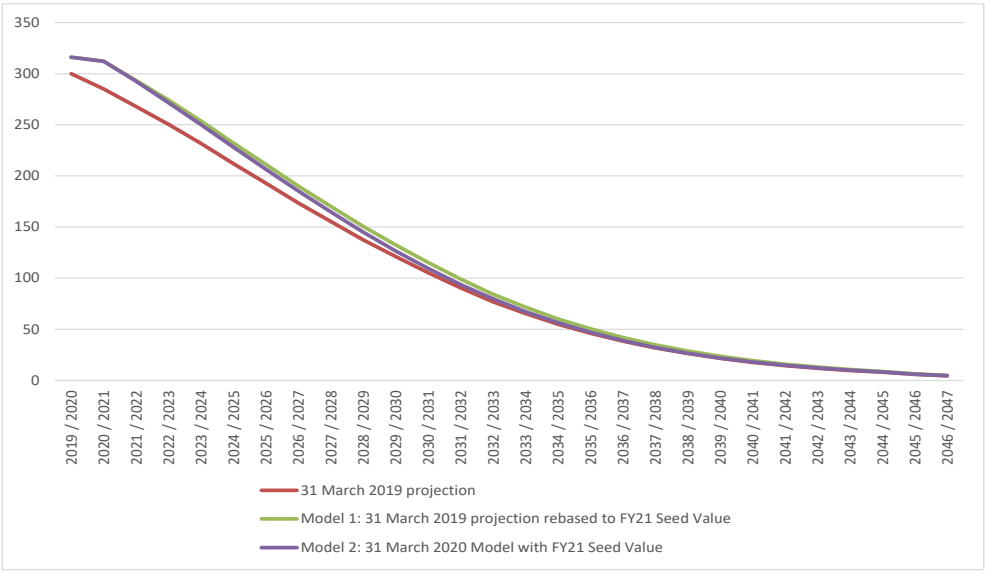


Our latency model for mesothelioma direct claims from first exposure assumes a mean latency of 39 years and a standard deviation of 9 years.

6.2.2 Overall future incidence pattern and IBNR claim numbers

The following chart shows the pattern of future notifications which have resulted from the application of our methodology.

Figure 6.6: Projected future claim notifications for mesothelioma direct claims



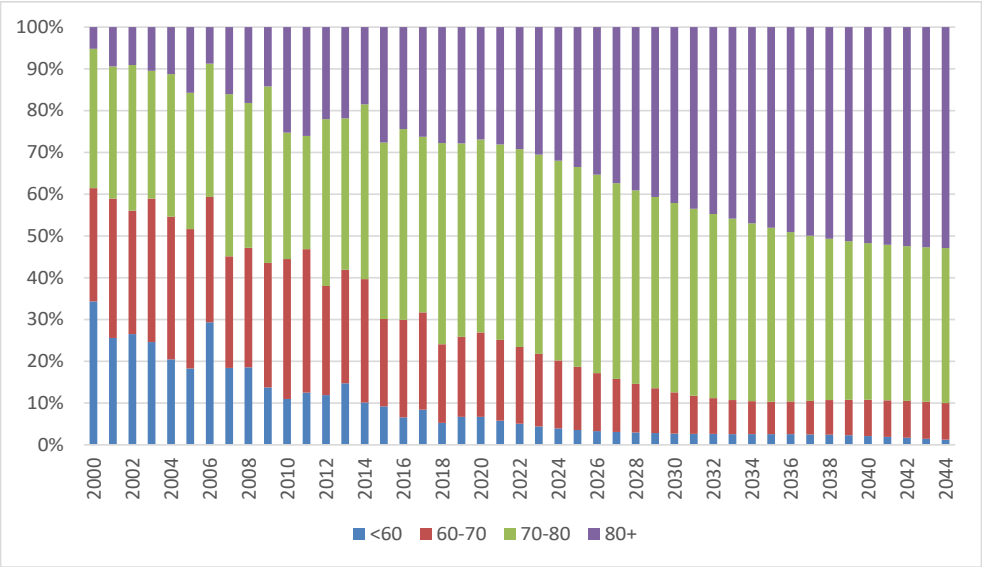
6.2.3 Assumed change in future mix of claims by claimant age

We have assumed a mix of direct claims by claimant age for 2020/21 as follows:

- 6.7% (21 claims) for ages less than 60,
- 20.2% (63 claims) for ages 60-70,
- 46.2% (144 claims) for ages 70-80,
- 26.9% (84 claims) for ages over 80.

The following chart shows the change in mix of claims by claimant age over time both historically and projected into the future periods.

Figure 6.7: Mix of claims by claimant age for mesothelioma direct claims



6.2.4 Impact to projected future claim numbers

The table below summarises the projected future claim numbers for mesothelioma direct claims by period and compares the current valuation with the previous valuation projection.

Table 6.1: Projected future mesothelioma direct claims by reporting period

Claim Number Projections: Direct	Previous Valuation	Current Valuation	Valuation change	Valuation change (%)
FY2020	300	316	16	5.3%
FY21 - FY25	1,247	1,354	107	8.6%
FY26 - FY30	781	828	47	6.1%
FY31 - FY40	558	574	16	3.0%
FY41 - FY45	62	64	2	2.5%
1 April 2045 onwards	24	24	1	3.3%
Total	**2,971**	**3,160**	**189**	**6.4%**
FY2020 to FY2025	**1,547**	**1,670**	**123**	**8.0%**
FY2026 onwards	**1,424**	**1,490**	**66**	**4.7%**

The higher starting value for 2020/21 has increased the future number of direct claims in the period FY21-FY25. However, the shorter mean latency and standard deviation lead to smaller percentages increases in projected claims reporting for later periods.

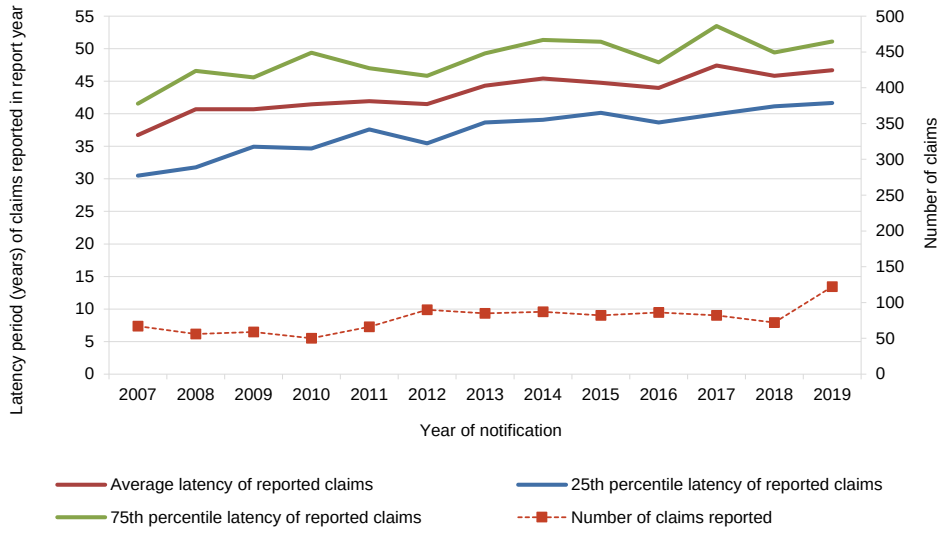
6.3 Mesothelioma: cross claims

6.3.1 Latency period of reported claims

We have analysed the actual latency period of the reported claims of the Liable Entities. In the charts that follow, we have measured the average actual latency period from the average date of exposure to the date of notification of a claim.

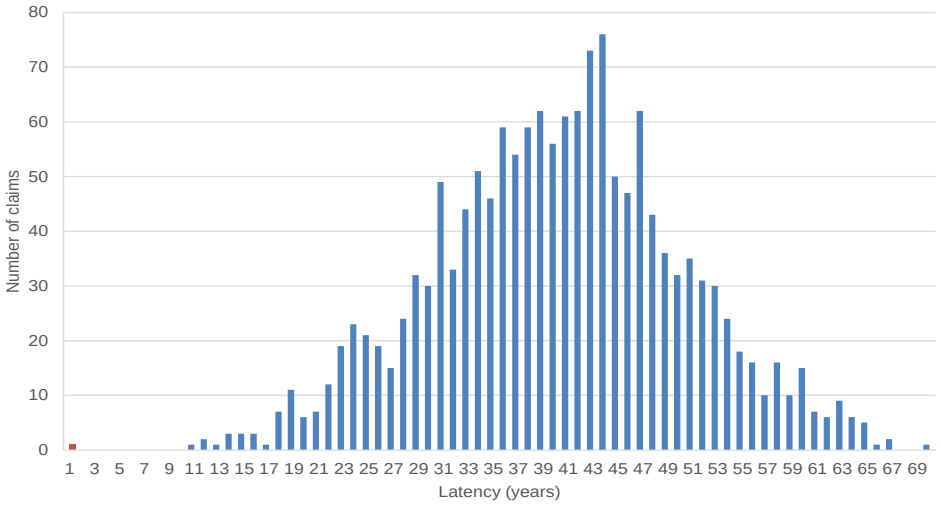
The chart below shows the average latency observed for mesothelioma claims and the 25th percentile and 75th percentile observations.

Figure 6.8: Latency of mesothelioma cross claims



The observed average latency period from the average exposure is currently approximately 47 years for cross claims, increasing at about 0.8 years for each passing year.

Figure 6.9: Latency distribution of mesothelioma cross claims

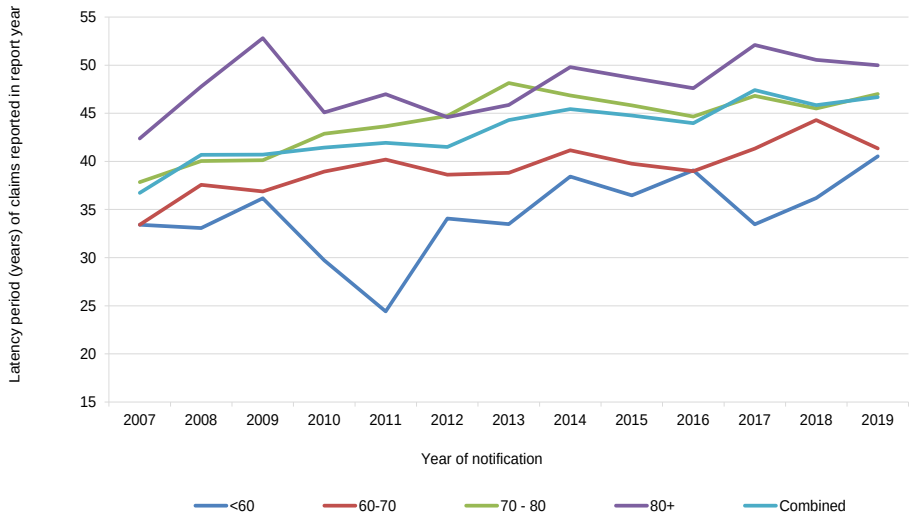


Our latency model assumes a "normal distribution" and the chart seems to (in broad terms) support that assumption at this time, whilst noting that smaller claim numbers will lead to more volatility (and a lower 'goodness of fit').

For cross claims, the mean latency to date is 40.5 years, the median latency is 41 years and the mode of the latency is 44 years. The standard deviation is around 10 years.

The following chart shows how the average reported latencies vary between each of the age groups.

Figure 6.10: Latency of mesothelioma claims by age of claimant and type of claim

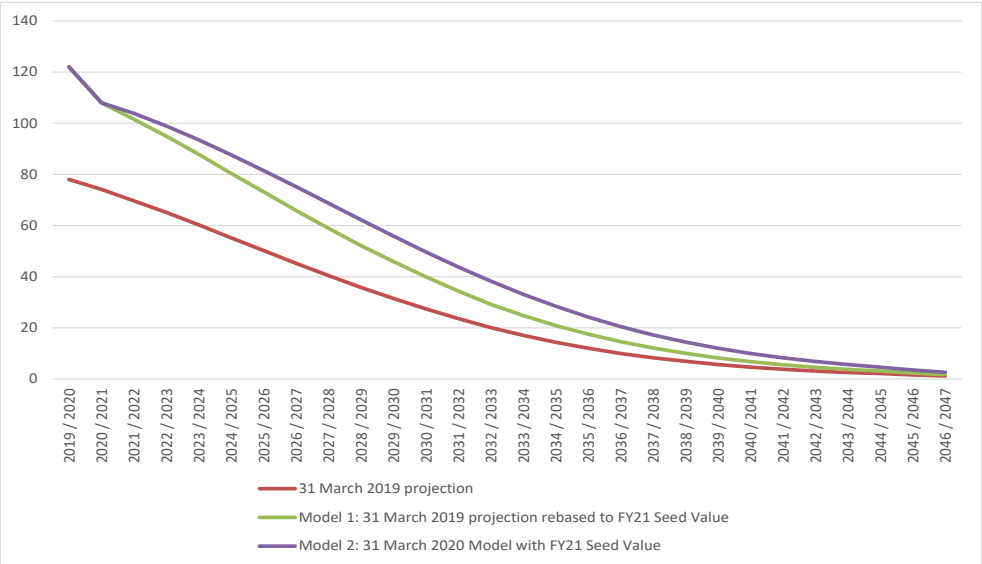


Our latency model for mesothelioma cross claims from first exposure assumes a mean latency of 41 years and a standard deviation of 10 years.

6.3.2 Overall future incidence pattern and IBNR claim numbers

The following chart shows the pattern of future notifications which have resulted from the application of our methodology.

Figure 6.11: Projected future claim notifications for mesothelioma cross claims



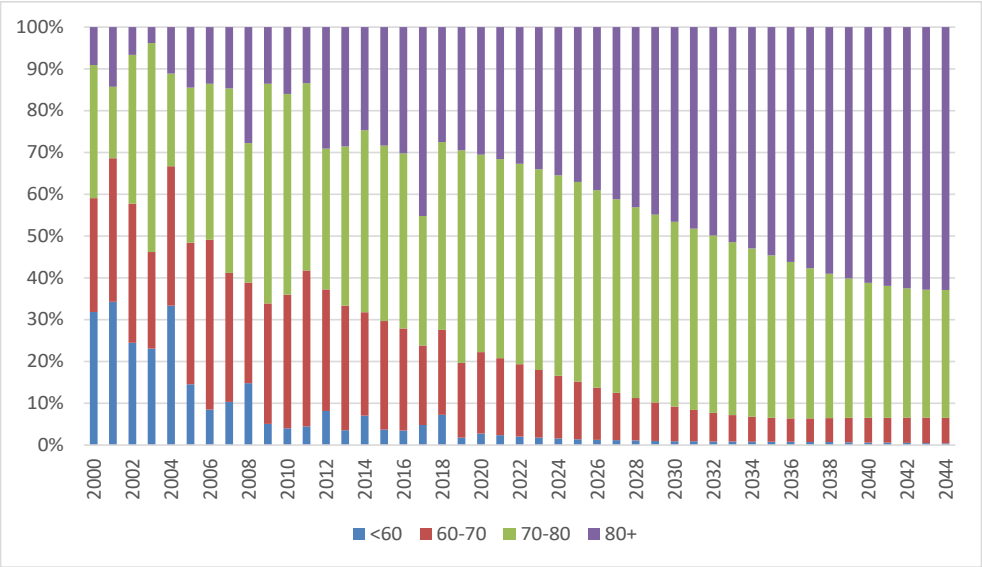
6.3.3 Assumed change in future mix of claims by claimant age

We have assumed a mix of cross claims by claimant age for 2020/21 as follows:

- 2.8% (3 claims) for ages less than 60,
- 19.4% (21 claims) for ages 60-70,
- 47.2% (51 claims) for ages 70-80,
- 30.6% (33 claims) for ages over 80.

The following chart shows the change in mix of claims by claimant age over time both historically and projected into the future periods.

Figure 6.12: Mix of claims by claimant age for mesothelioma cross claims



6.3.4 Impact to projected future claim numbers

The table below summarises the projected future claim numbers for mesothelioma cross claims by period and compares with the previous valuation projection.

Table 6.2: Projected future mesothelioma cross claims by reporting period

Claim Number Projections: Cross	Previous Valuation	Current Valuation	Valuation change	Valuation change (%)
FY2020	78	122	44	56.4%
FY21 - FY25	324	492	168	51.7%
FY26 - FY30	203	343	140	69.1%
FY31 - FY40	145	281	136	94.1%
FY41 - FY45	16	35	19	118.0%
1 April 2045 onwards	6	14	7	120.7%
Total	**772**	**1,287**	**515**	**66.6%**
FY2020 to FY2025	**402**	**614**	**212**	**52.6%**
FY2026 onwards	**370**	**673**	**303**	**81.9%**

The materially higher starting value for 2020/21 has significantly increased the future number of cross claims in the period FY21-FY25. Additionally, the assumed longer mean latency and standard deviation lead to higher percentages increases in projected claims reporting for later periods.

6.4 Non-mesothelioma experience

6.4.1 Latency period of reported claims

The trend in latency periods for other disease types is shown in the following charts.

Figure 6.13: Latency of asbestosis claims

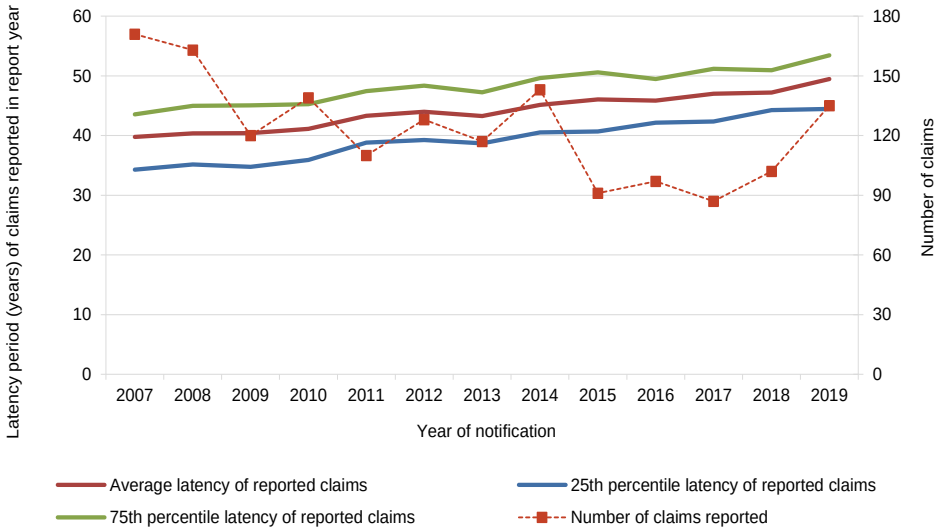


Figure 6.14: Latency of lung cancer claims

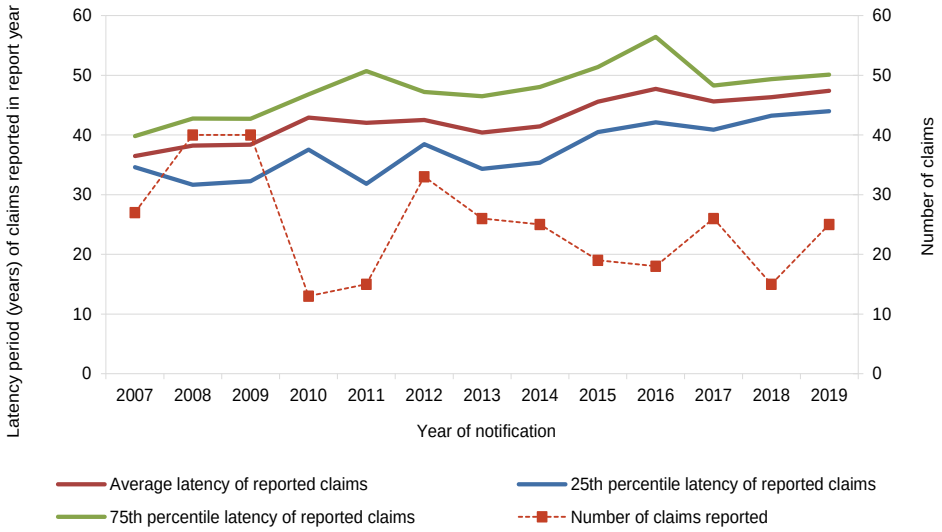
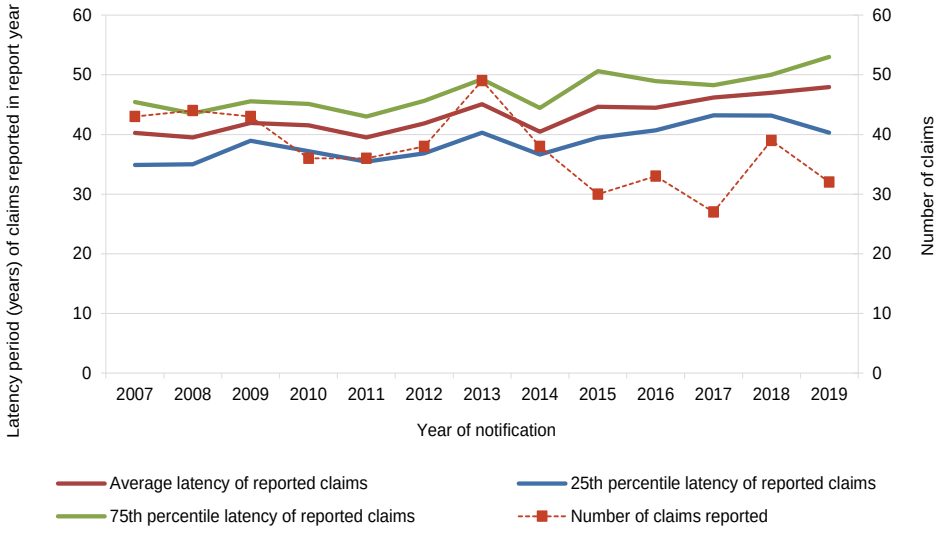


Figure 6.15: Latency of ARPD & Other claims



The average observed latency periods for the other disease types show a more surprising trend, appearing to be longer than epidemiological literature has tended to suggest.

A summary of our underlying latency assumptions by disease type are shown below. The mean and standard deviation values quoted are applied to a normal distribution model.

Table 6.3: Assumed underlying latency distribution parameters from average date of exposure to date of notification

	Mean latency (years)	Standard deviation of latency (years)
Asbestosis	35	8
Lung Cancer	35	10
ARPD & Other	32	10
Wharf	n/a	n/a
Workers compensation	n/a	n/a

These assumptions are unchanged from the previous valuation.

6.4.2 Modelled assumptions for peak year of claim incidence

Based on the application of our exposure model and our latency model, and the assumptions contained explicitly or implicitly within those models, the peak year of notification of claims reporting against the Liable Entities for each disease type (excluding mesothelioma) is modelled to be as follows:

Table 6.4: Modelled peak year of claim notifications

	Current valuation	Previous valuation
Asbestosis	2008/09	2008/09
Lung Cancer	2010/11	2010/11
ARPD & Other	2007/08	2007/08
Wharf	2008/09	2008/09
Workers Compensation	2007/08	2007/08

These modelled assumptions are unchanged and reflect no changes to the exposure data and no changes to the latency model assumptions at this time.

We note that whilst the "modelled peak" derived from our model is as shown above, this does not automatically translate to, nor does it imply that, the "highest claims reporting year" will be those years. This is because variation from year to year is expected due to normal 'statistical variation' in claim numbers.

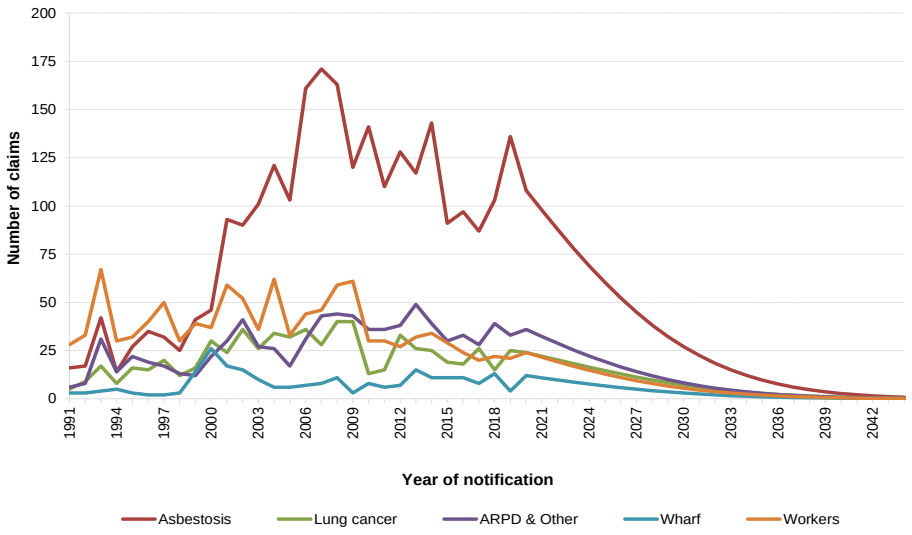
6.4.3 Projected incidence patterns

We have projected the future number of claim notifications from the curve we have derived using our exposure model and our latency model.

We have applied this curve to the base number of claims we have estimated for each disease type for 2020/21 as summarised in Section 5.7.

The following chart shows the pattern of future notifications which have resulted from the application of our exposure and latency model and the recalibration of the curve to our revised expectations of claims reporting activity for 2020/21.

Figure 6.16: Projected future claim notifications for other disease types



7. Claims Experience: Average Claims and Legal Costs

7.1 Overview

We have analysed the average claim awards, average plaintiff/other costs and average defendant legal costs by disease type in arriving at our valuation assumptions.

The table below shows how the average settlement cost for non-nil attritional (i.e. non-large) claims has varied by settlement year. All data have been converted into mid 2019/20 money terms using a historical base inflation index of 4% per annum.

We refer to these amounts as "inflated average attritional awards" in the charts and tables that follow.

The average amounts shown hereafter relate to the average amount of the contribution made by the Liable Entities, and does not reflect the total award payable to the plaintiff unless this is clearly stated to be the case.

In particular, for Workers Compensation the average award reflects the average contribution by the Liable Entities for claims in which they are joined but relates only to that amount of the award determined against the Liable Entities which is not met by a Workers Compensation Scheme or Policy.

Table 7.1: Average attritional non-nil claim award (inflated to mid 2019/20 money terms)

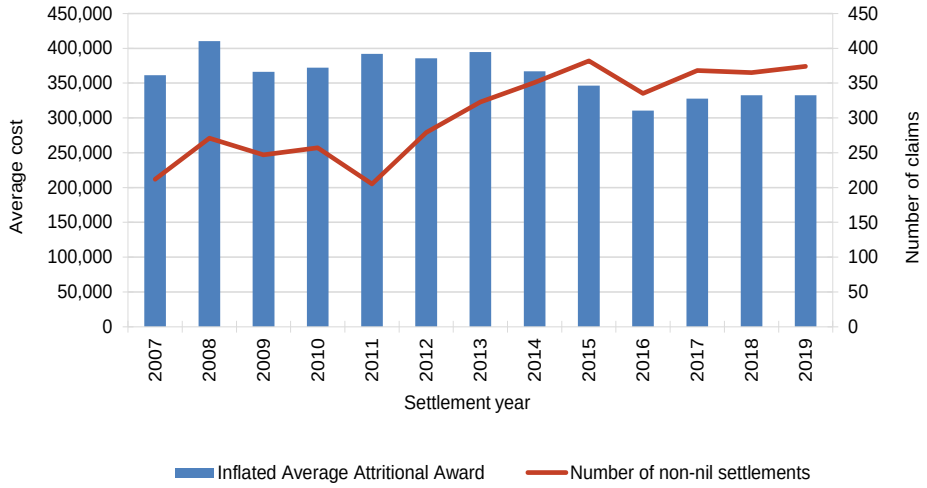
Settlement Year	Mesothelioma	Asbestosis	Lung Cancer	ARPD & Other	Wharf	Workers Compensation
2007	361,392	125,290	175,752	75,543	75,738	418,556
2008	410,176	131,992	129,934	137,809	222,693	84,670
2009	366,109	148,268	150,266	130,644	87,139	148,715
2010	372,211	121,087	195,338	102,742	53,095	0
2011	391,972	149,436	171,129	133,595	104,134	1,231,712
2012	385,600	161,242	153,915	114,284	46,301	111,854
2013	394,704	125,007	131,239	123,126	131,360	25,306
2014	366,832	120,840	167,559	87,092	97,361	85,166
2015	346,429	117,688	136,099	120,237	157,667	0
2016	310,538	88,316	45,903	82,171	41,505	0
2017	327,532	113,337	126,562	71,377	85,087	261,387
2018	332,687	96,692	78,160	112,859	57,542	0
2019	332,521	108,337	83,998	139,825	98,606	50,000

7.2 Mesothelioma claims

7.2.1 Overall average claim sizes

The chart below shows the average claim size for non-nil, non-large claims inflated to mid 2019/20 money terms.

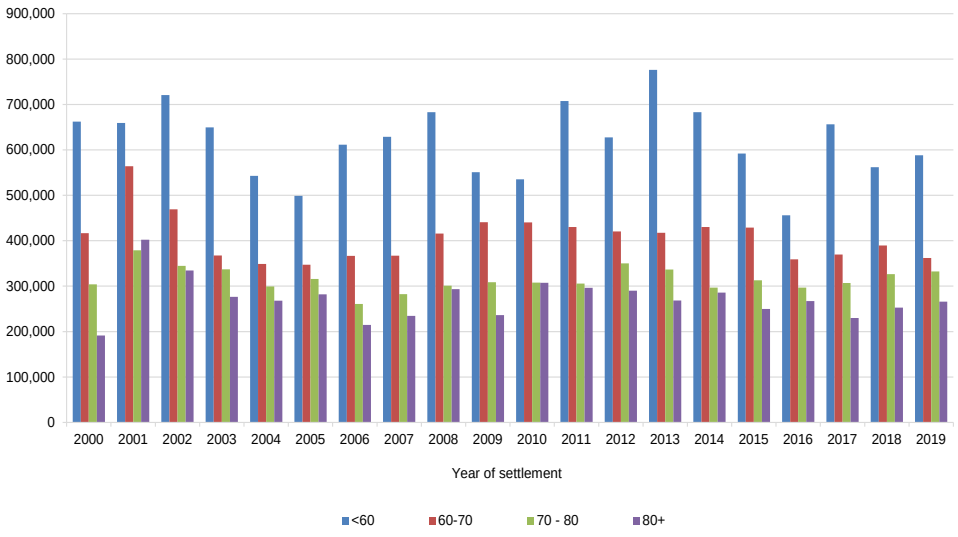
Figure 7.1: Average attritional awards (inflated to mid 2019/20 money terms) and number of non-nil claims settlements for mesothelioma claims (excluding large claims)



7.2.2 Claim sizes by age of claimant

The following chart shows that there is a significant difference between the average costs of claims for different age groups.

Figure 7.2: Average attritional awards (inflated to mid 2019/20 money terms) by age of claimant



7.2.3 Claim sizes by claim type and age of claimant

The following table shows the comparison of the average cost of claims settled in 2019/20 for direct and cross claims, split by age cohort.

This table demonstrates the significant difference between the average costs of claims between direct claims and cross claims.

This also explains why the separation of the mesothelioma category between direct claims and cross claims is important if the mix of claims by number is, or has been, changing.

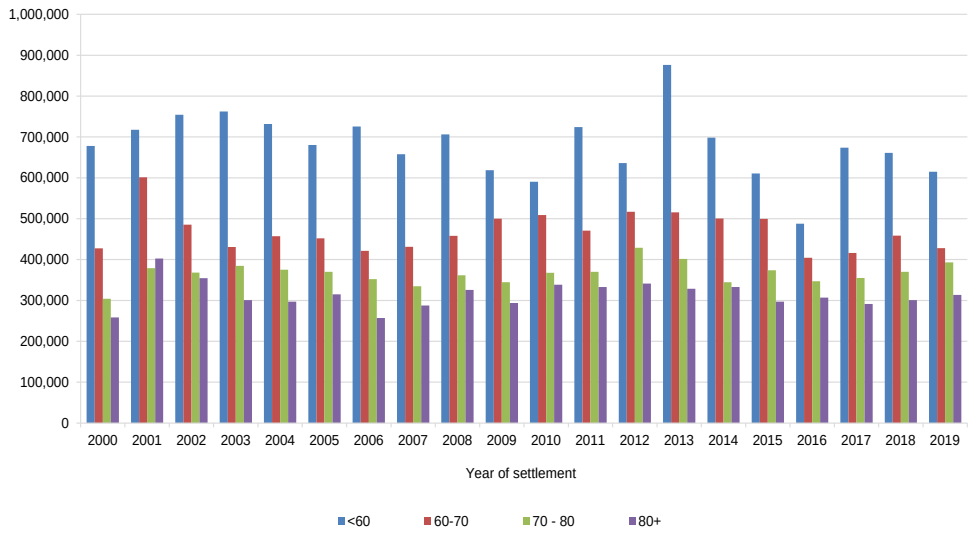
Table 7.2: Average attritional awards (inflated to mid 2019/20 money terms) for direct and cross claims by age of claimant

	Direct Claims		Cross Claims	
Age	# settled (non-nil)	Average Claim Size	# settled (non-nil)	Average Claim Size
<60	17	614,647	1	135,000
60 - 70	55	428,047	13	81,857
70 - 80	152	393,135	38	88,418
80+	78	313,356	20	80,703
Overall	**302**	**391,357**	**72**	**85,737**

7.3 Mesothelioma: direct claims experience and assumptions

The chart below shows the average claim size by age cohort since 2000/01 for direct mesothelioma claims.

Figure 7.3: Average attritional awards (inflated to mid 2019/20 money terms) by age of claimant



For claimants under the age of 60:

- The average size for 2019/20 was $615,000, a 7% reduction on the average size for 2018/19.
- The last three years have averaged $654,000; the last four years have averaged $622,000; the last five years have averaged $619,000, the last six years have averaged $635,000; the last seven years have averaged $682,000.
- The four-year and five-year averages are particularly influenced by the favourable experience in 2016/17.
- We have taken a longer-term view noting the smaller numbers of claims in this age group and because it appears that the experience in 2016/17 was somewhat aberrational.
- We have therefore selected an assumption of $675,000.

For claimants aged 60-70:

- The average size for 2019/20 was $428,000, a 7% reduction on the average size for 2018/19.
- The last three years have averaged $434,000; the last four years have averaged $426,000; the last five years have averaged $444,000, the last six years have averaged $456,000; the last seven years have averaged $464,000.
- We have taken a longer-term view noting the smaller numbers of claims in this age group.
- We have therefore selected an assumption of $460,000.

For claimants aged 70-80:

- The average size for 2019/20 was $393,000, a 6% increase on the average size for 2018/19.
- The last three years have averaged $374,000; the last four years have averaged $367,000; the last five years have averaged $369,000, the last six years have averaged $365,000; the last seven years have averaged $369,000.
- This segment is the largest segment by both number of claims and total expenditure.
- We have therefore selected an assumption of $375,000.
- We observe that five out of the last six years have seen an average size of $375,000 or less. The experience for the 2019/20 year was particularly influenced by a higher number of claims in excess of $700,000.

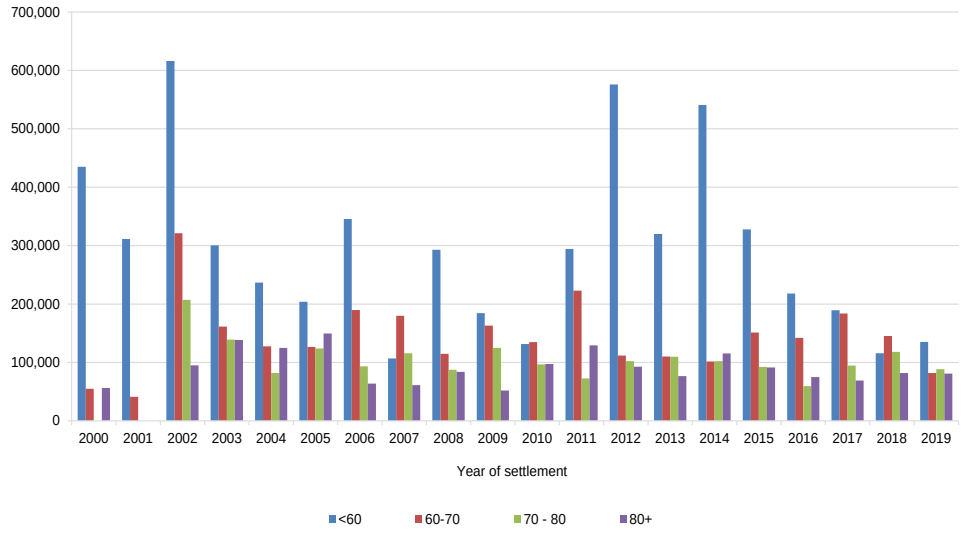
For claimants aged 80+:

- The average size for 2019/20 was $313,000, a 4% increase on the average size for 2018/19.
- The last three years have averaged $302,000; the last four years have averaged $303,000; the last five years have averaged $302,000, the last six years have averaged $305,000; the last seven years have averaged $308,000.
- We have therefore selected an assumption of $310,000.

7.4 Mesothelioma cross claims experience and assumptions

The chart below shows the average claim size by age cohort since 2000/01 for cross claims.

Figure 7.4: Average attritional awards (inflated to mid 2019/20 money terms) by age of claimant



For claimants under the age of 60:

- The average size for 2019/20 was $135,000.
- There are typically between 1 and 5 claims in this age cohort. As such, the claim size experience can be volatile from year to year depending on the specific circumstances of a small number of claims.
- We have therefore selected an assumption of $250,000 whilst noting this assumption is not material to the overall valuation given the small number of claims.

For claimants aged 60-70:

- The average size for 2019/20 was $82,000.
- The last three years have averaged $142,000; the last four years have averaged $142,000; the last five years have averaged $144,000, the last six years have averaged $136,000; the last seven years have averaged $132,000.
- We have taken a longer-term view noting the smaller numbers of claims in this age group.
- We have therefore selected an assumption of $150,000.

For claimants aged 70-80:

- The average size for 2019/20 was $88,000.
- The last three years have averaged $99,000; the last four years have averaged $90,000; the last five years have averaged $91,000, the last six years have averaged $93,000; the last seven years have averaged $95,000.
- This segment is the largest cross claims segment by both number of claims and total expenditure.
- We have therefore selected an assumption of $95,000.

For claimants aged 80+:

- The average size for 2019/20 was $81,000.
- The last three years have averaged $77,000; the last four years have averaged $76,000; the last five years have averaged $80,000, the last six years have averaged $84,000; the last seven years have averaged $83,000.
- We have therefore selected an assumption of $85,000.

7.5 Additional allowance for mesothelioma claims for the potential costs from overseas exposures (*Talifero vs Amaca)*

We have made an allowance of $6,000 per mesothelioma claim (in mid 2019/20 money terms).

This amount has been applied across all mesothelioma claims, both direct claims and cross claims), to allow for the potential costs arising from overseas exposures consequent to the decision in *Talifero vs Amaca*.

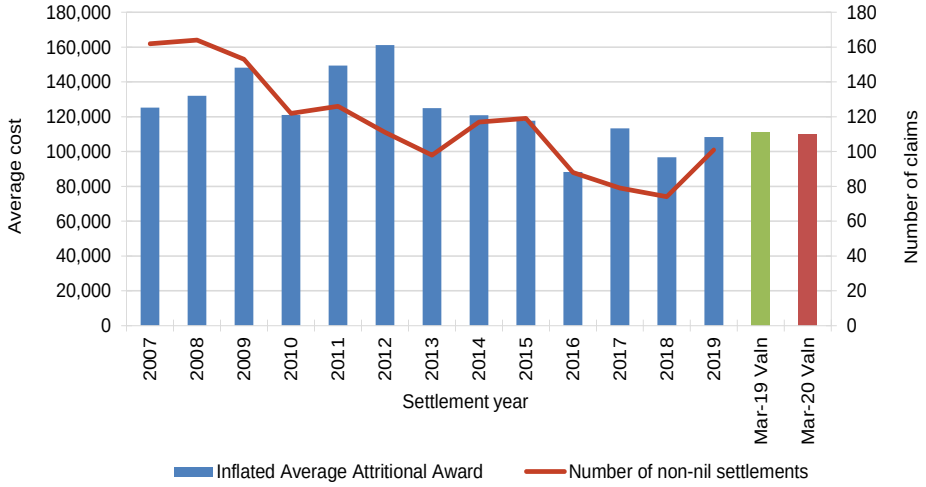
We have then applied that assumption (with wage and superimposed inflation) for future years.

Our per-claim adjustment is only applied to mesothelioma claims.

7.6 Asbestosis claims

For asbestosis, it can be seen from Table 7.1 that the period since 2007/08 has had volatile average claim size experience, with average claim sizes ranging from $88,000 to $161,000 (in mid 2019/20 money terms).

Figure 7.5: Average awards (inflated to mid 2019/20 money terms) and number of non-nil claims settlements for asbestosis claims



The average of the past three years is $106,000; the average of the past four years is $102,000 and the average of the past five years is $106,000.

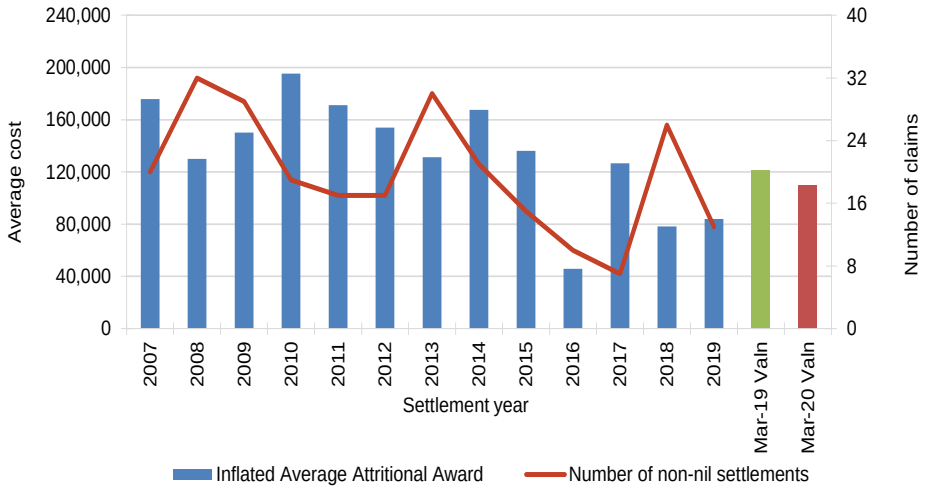
In setting an assumption, we also note there has been one asbestosis claim settled as a "large claim" and this is not shown in the above analysis.

Taking all of the above factors into consideration, we have adopted a valuation assumption of $110,000 for asbestosis claims in mid 2019/20 money terms. This assumption represents a decrease of 1% in inflation-adjusted terms from our previous assumption.

7.7 Lung cancer claims

The average award for lung cancer claims has exhibited some volatility in the past five years, although this is not unexpected given the small volume of claim settlements (approximately 10 to 30 claims per annum).

Figure 7.6: Average awards (inflated to mid 2019/20 money terms) and number of non-nil claims settlements for lung cancer claims



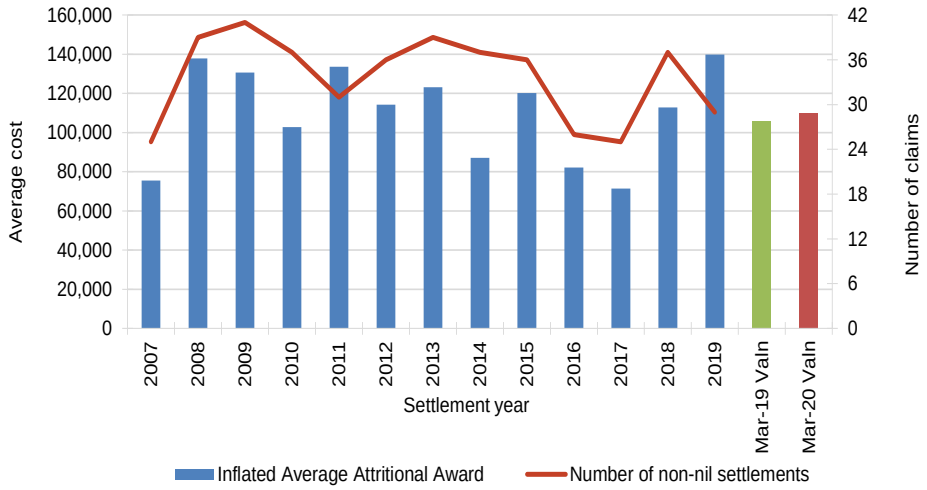
The average of the past three years is $87,000; the average of the past four years is $80,000 and the average of the past five years is $92,000.

Taking all of the above factors into consideration, and noting the volatility arising from the small number of non-nil claims, we have adopted a valuation assumption of $110,000. This assumption represents a decrease of 10% in inflation-adjusted terms from our previous assumption.

7.8 ARPD & Other claims

The average award size has shown considerable volatility and two of the last five years have seen some of the lowest average claim sizes historically observed.

Figure 7.7: Average awards (inflated to mid 2019/20 money terms) and number of non-nil claims settlements for ARPD & Other claims



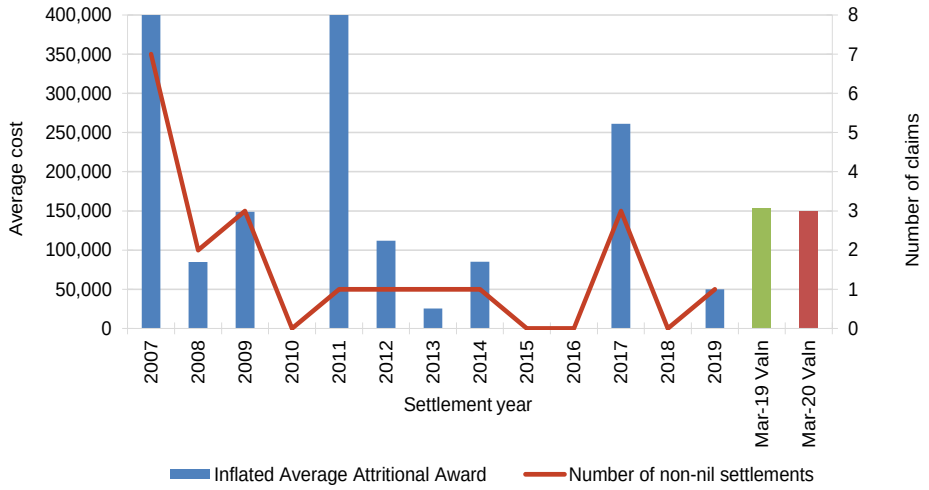
The average of the past three years is $110,000; the average of the past four years is $104,000 and the average of the past five years is $108,000. Each of these is affected by the unusually favourable experience in 2017/18.

Taking all of the above factors into consideration, we have adopted a valuation assumption of $110,000 for ARPD & Other claims in mid 2019/20 money terms. This assumption represents an increase of 4% in inflation-adjusted terms from our previous assumption.

7.9 Workers Compensation claims

The average award for non-nil Workers Compensation claims has shown a large degree of volatility, reflecting the small number of non-nil claims.

Figure 7.8: Average awards (inflated to mid 2019/20 money terms) and number of non-nil claims settlements for Workers Compensation claims



It should be noted that the high average claim size in 2011/12 is due to one claim of $900,000 (in 2011/12 values). Furthermore, we understand that this claim payment was recovered from the workers compensation insurer at a later date.

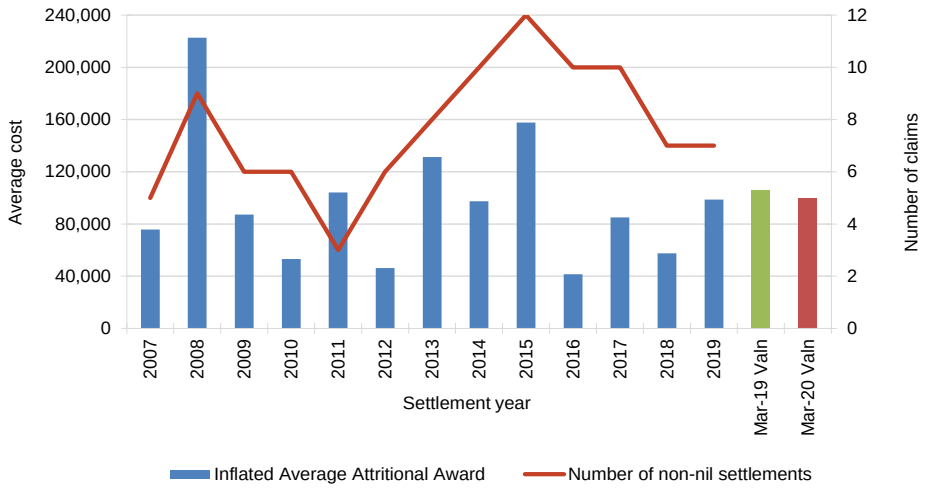
Taking all of the above factors into consideration, we have adopted a valuation assumption of $150,000. This assumption represents a decrease of 2% in inflation-adjusted terms from our previous assumption.

This assumption is not material to the overall liability given the high proportion of claims (in excess of 90%) which are settled with no retained liability against the Liable Entities.

7.10 Wharf claims

For wharf claims, the average of the past three years has been $81,000; the average of the past four years has been $69,000 and the average of the past five years has been $92,000.

Figure 7.9: Average awards (inflated to mid 2019/20 money terms) and number of non-nil claims settlements for wharf claims



The experience in 2008/09 was impacted by one large claim of almost $600,000 (in 2008/09 values).

At this valuation, we have adopted a valuation assumption of $100,000 in mid 2019/20 money terms. This assumption represents a 5% decrease compared to our previous valuation in inflation-adjusted terms.

Given the small volume of wharf claims, this assumption is not financially significant to the overall results.

7.11 Mesothelioma large claim size and incidence rates

There have been 69 mesothelioma claims settled with awards in excess of $1m in 2006/07 money terms.

There has only ever been one cross claim that has been a large claim (settled in 2000).

Given this, the assumed large claim incidence rate for cross claims has been set at 0% for all age cohorts.

The following analysis is therefore only applicable for direct claims.

In aggregate, large claims have been settled at an average cost of approximately $2.47m. There have been two claims of more than $6.0m each in mid 2019/20 money terms.

In selecting a large claim incidence rate or an expected annual number of large claims for direct claims, we have analysed the number of large claims by year of notification, separately for each of the four age groups.

We have also shown the incidence rate of large claims for each of the age groups.

Figure 7.10: Number of large claims by year of notification

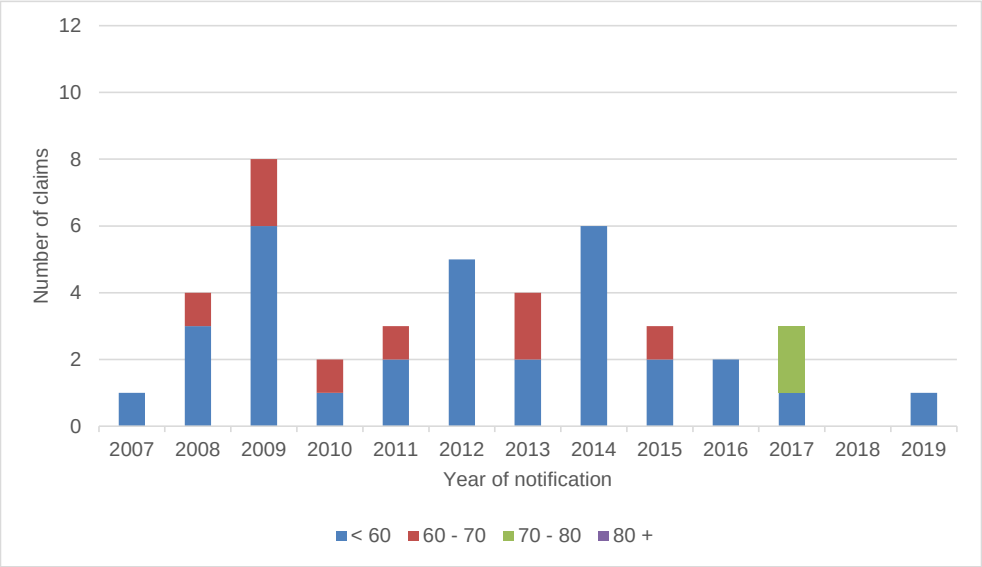
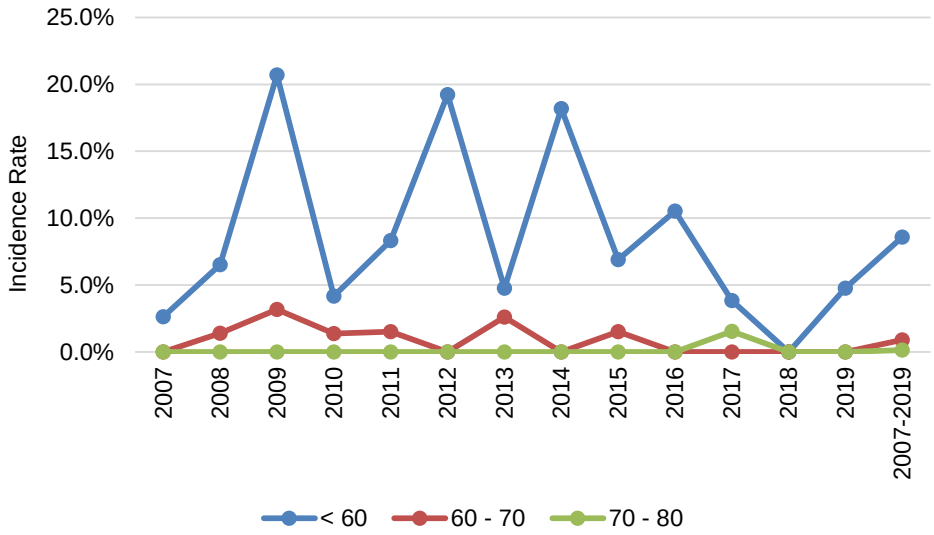


Figure 7.11: Large claims incidence rate by age of claimant



There have been no large claims for claimants over the age of 80.

We have assumed a future large claim incidence rate of 10.00% for claimants under 60 years of age, 1.00% for claimants between 60 and 70 years of age, and 0.10% for claimants between 70 and 80 years of age.

For the average large claim size, we have adopted a valuation assumption of $2.45m in mid 2019/20 money terms and we have adopted the same average claim size for all age groups. This is based on analysis that shows minimal variation in average claim size for large claims between claimants in each of the age cohorts

We have made an additional allowance for plaintiff legal costs to allow for those instances where such costs are made additional to, rather than included with, the claims award and also for defence costs.

The actual incidence of, and settlement of, large claims is not readily predictable and therefore deviations will occur from year to year due to random fluctuations because of the small numbers of large claims (between 1 and 8 large claims per annum).

7.12 Summary average claim cost assumptions

The following table provides a summary of our average claim cost assumptions at this valuation, and those assumed at the previous valuation.

Table 7.3: Summary average claim cost assumptions

	Current Valuation	Previous Valuation	% change
Mesothelioma: Direct <60	681,000	n/a	n/a
Mesothelioma: Direct 60-70	466,000	n/a	n/a
Mesothelioma: Direct 70-80	381,000	n/a	n/a
Mesothelioma: Direct 80+	316,000	n/a	n/a
Mesothelioma: Cross <60	256,000	n/a	n/a
Mesothelioma: Cross 60-70	156,000	n/a	n/a
Mesothelioma: Cross 70-80	101,000	n/a	n/a
Mesothelioma: Cross 80+	91,000	n/a	n/a
Asbestosis	110,000	111,038	-1%
Lung Cancer	110,000	121,613	-10%
ARPD & Other	110,000	105,750	4%
Wharf	100,000	105,750	-5%
Workers Compensation	150,000	153,338	-2%
Mesothelioma Large Claims (award only)	Average Size: $2.45m. Frequency: 10.00% (<60), 1.00% (60-70), 0.1% (70-80)	Average Size: $2.49m. Frequency: 9.00% (<60), 1.00% (60-70), 0.1% (70-80)	

Note: Both the current valuation assumption and the previous valuation assumption are expressed in mid 2019/20 money terms.

Note: For mesothelioma, the previous valuation assumptions were aggregate assumptions across direct and cross claims. As such we have not shown them in the above table.

Note: For mesothelioma, the current valuation assumptions include an allowance of $6,000 for the decision in Talifero vs Amaca

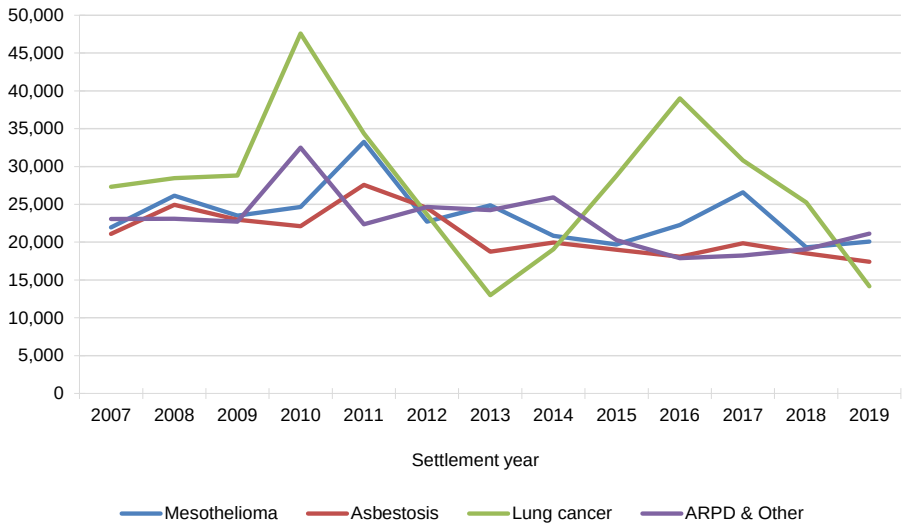
7.13 Defence legal costs

7.13.1 Non-nil claims

The average defence legal costs for non-nil claims by settlement year have been relatively stable over the last ten years for mesothelioma, asbestosis and ARPD & Other, albeit showing some general downward drift over time.

The average defence costs for lung cancer have shown a greater degree of variability, although this is not unexpected given the small volume of claim settlements (approximately 10 to 30 claims per annum).

Figure 7.12: Average defence legal costs (inflated to mid 2019/20 money terms) for non-nil claims settlements by settlement year



Note: The chart does not include average defence costs for Wharf and Worker claims due to the smaller number of claims involved and the variability that exists as a consequence.

7.13.2 Large claims

The average defence legal costs across all large claims to date has been $167,500 although this has generally been trending downwards over time.

We have allowed for defence legal costs of $105,000 per large claim having regard to more recent experience.

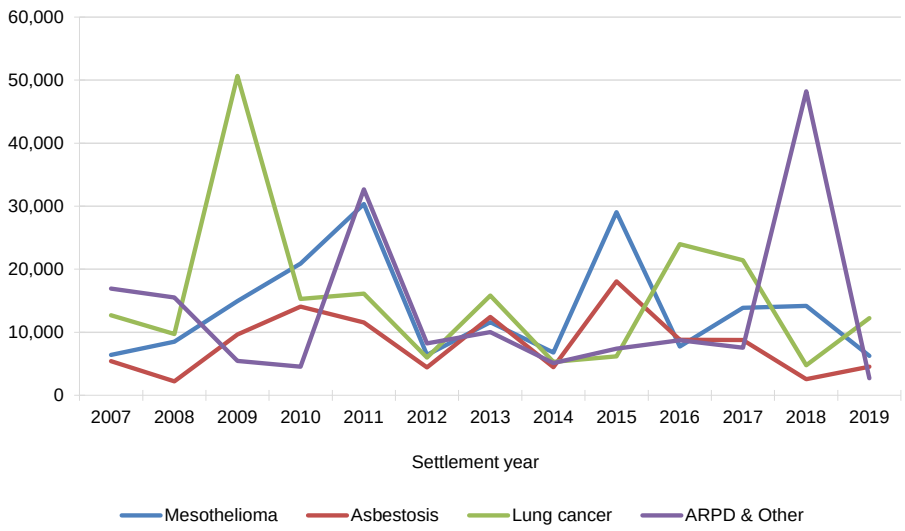
7.13.3 Nil claims

The average defence legal costs for nil claims by settlement year has been volatile for all disease types.

For mesothelioma, the volatility is a consequence of low nil settlement rate, meaning that there may be 20 to 30 nil claims in any year.

For the other disease types, the number of nil claims might typically be of the order of 10 claims per annum for each disease type.

Figure 7.13: Average defence legal costs (inflated to mid 2019/20 money terms) for nil claims settlements by settlement year



Note: The chart does not include average defence costs for Wharf and Worker claims due to the smaller number of claims involved and the variability that exists as a consequence.

7.14 Summary average defendant legal costs assumptions

The following table provides a summary of our defendant legal costs assumptions at this valuation, and those assumed at the previous valuation.

We have adopted different legal cost assumptions for mesothelioma for the four age groups and separately for direct and cross claims, based on analysis which indicates there is variation (which in part will be related to the average size of claims in each age group and claim type).

Table 7.4: Summary average defendant legal costs assumptions

	Current Valuation		Previous Valuation	
	Non Nil Claims	Nil Claims	Non Nil Claims	Nil Claims
Mesothelioma: Direct <60	35,000	20,000	n/a	n/a
Mesothelioma: Direct 60-70	25,000	20,000	n/a	n/a
Mesothelioma: Direct 70-80	22,000	15,000	n/a	n/a
Mesothelioma: Direct 80+	20,000	10,000	n/a	n/a
Mesothelioma: Cross <60	34,000	10,000	n/a	n/a
Mesothelioma: Cross 60-70	22,000	10,000	n/a	n/a
Mesothelioma: Cross 70-80	17,000	10,000	n/a	n/a
Mesothelioma: Cross 80+	15,000	10,000	n/a	n/a
Asbestosis	19,000	7,000	18,675	8,300
Lung Cancer	26,000	15,000	25,938	15,563
ARPD & Other	20,000	10,000	18,675	10,375
Wharf	15,000	5,000	15,563	5,188
Workers Compensation	15,000	1,000	15,563	1,038
Mesothelioma Large	105,000	0	108,938	0

Note: Both the current valuation assumption and the previous valuation assumption are expressed in mid 2019/20 money terms.

8. Claims Experience: Nil Settlement Rates

8.1 Overview

We have analysed the nil settlement rates, being the number of nil settlements expressed as a percentage of the total number of settlements (nil and non-nil).

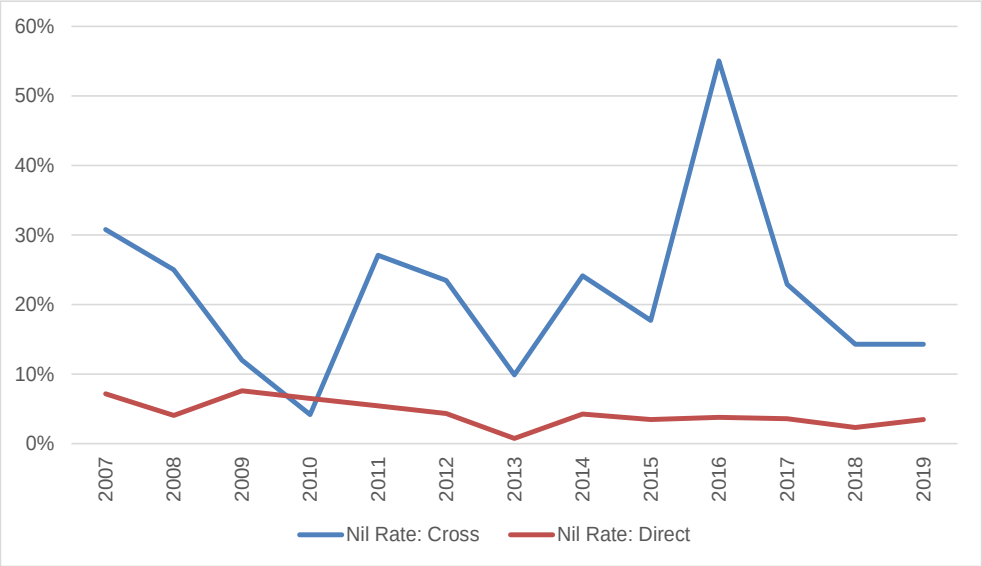
Table 8.1: Nil settlement rates

Settlement Year	Mesothelioma	Asbestosis	Lung Cancer	ARPD & Other	Wharf	Workers Compensation
2007	13%	9%	31%	19%	72%	85%
2008	8%	9%	24%	13%	0%	95%
2009	8%	8%	29%	2%	14%	83%
2010	6%	6%	41%	14%	0%	100%
2011	10%	7%	32%	11%	0%	67%
2012	9%	16%	23%	20%	40%	99%
2013	3%	8%	3%	13%	20%	99%
2014	9%	11%	16%	8%	9%	97%
2015	7%	6%	25%	8%	8%	100%
2016	20%	13%	57%	16%	9%	100%
2017	8%	18%	59%	7%	9%	88%
2018	5%	15%	16%	5%	22%	100%
2019	6%	9%	32%	19%	0%	96%

8.2 Mesothelioma claims

Nil settlement rates vary substantially between direct claims and cross claims as shown in the chart below.

Figure 8.1: Mesothelioma nil settlement rate for direct claims and cross claims



In considering the future nil settlement rate assumption for direct claims, we observe:

- The nil settlement rate for the past three years has averaged 3.1%, for the past four years has averaged 3.3% and for the past five years has averaged 3.3%.
- The nil settlement rate for 2019/20 was 3.5%
- The average rate from 2007/08 to 2019/20 has been 4%.

Taking all of these factors into consideration, we have assumed a future nil settlement rate of 4%.

In considering the future nil settlement rate assumption for cross claims, we observe:

- The nil settlement rate for the 2016/17 year of 55% was due to 54 Queensland statutory recovery claims being closed at nil cost in December 2016.
- The average nil settlement rate from 2007/08 to 2019/20 has been 24%.
- Removing the Queensland claims, the nil settlement rate for the past three years has averaged 17%, for the past four years has averaged 19% and for the past five years has averaged 18%.

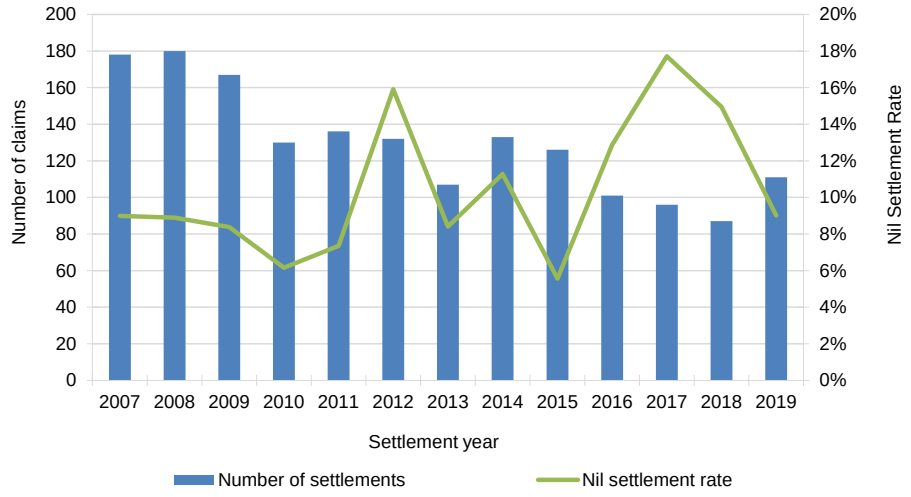
Taking all of these factors into consideration, we have assumed a future nil settlement rate of 19%.

The nil settlement rate assumptions have been applied equally to all age groups. We have done this because analysis by age group did not seem to indicate materially different nil settlement rates for the four age groups over time, and because the number of nil claims annually is quite small, meaning that sub-division of experience into four age groups results in reduced credibility and greater volatility.

8.3 Asbestosis claims

As with mesothelioma, the historical asbestosis nil settlement rate has been volatile.

Figure 8.2: Asbestosis nil claims experience



In considering the future nil settlement rate assumption, we note the following:

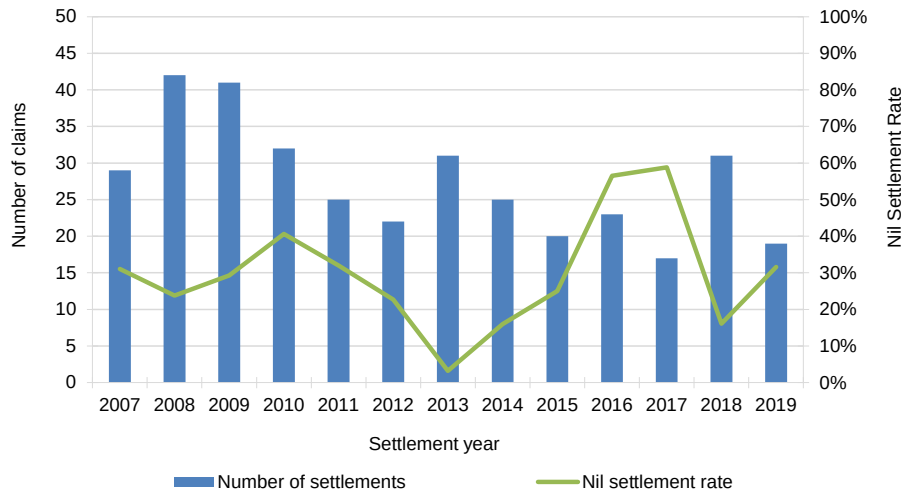
- The nil settlement rate for the past three years has averaged 14%, for the past four years has averaged 13% and for the past five years has averaged 12%.
- The nil settlement rate for 2019/20 was 9%.

Taking all of these factors into consideration, we have assumed a future nil settlement rate of 11%, a decrease from our previous valuation assumption of 12%.

8.4 Lung cancer claims

Given the small volumes of claims, volatility in the nil settlement rate for lung cancer claims is to be expected.

Figure 8.3: Lung cancer nil claims experience



In considering the future nil settlement rate assumption, we note the following:

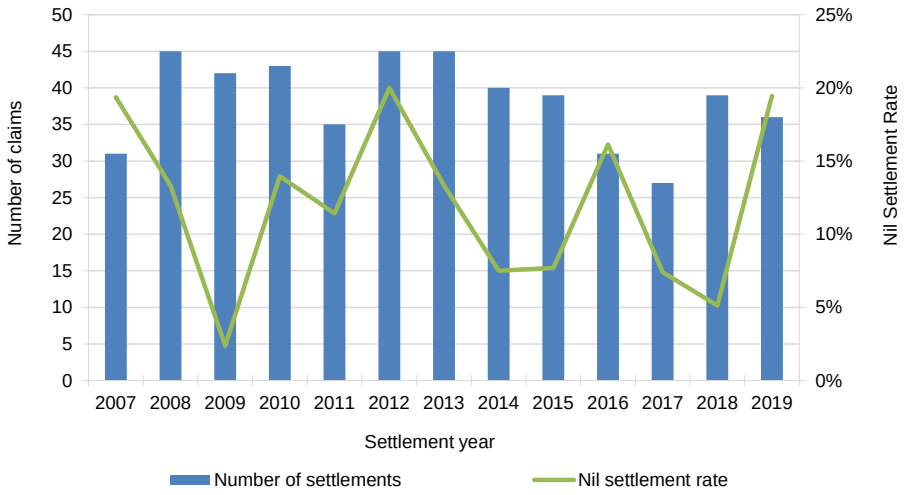
- The nil settlement rate for the past three years has averaged 31%, for the past four years has averaged 38% and for the past five years has averaged 36%.
- The nil settlement rate for 2019/20 was 32%.

Taking all of these factors into consideration, we have assumed a future nil settlement rate of 28%, an increase from our previous valuation assumption of 25%.

8.5 ARPD & Other claims

As with other disease types, there has been significant volatility in the historical nil settlement rate, given the low numbers of claims for this disease.

Figure 8.4: ARPD & Other nil claims experience



The nil settlement rate for the past three years has averaged 11%, for the past four years has averaged 12% and for the past five years has averaged 11%.

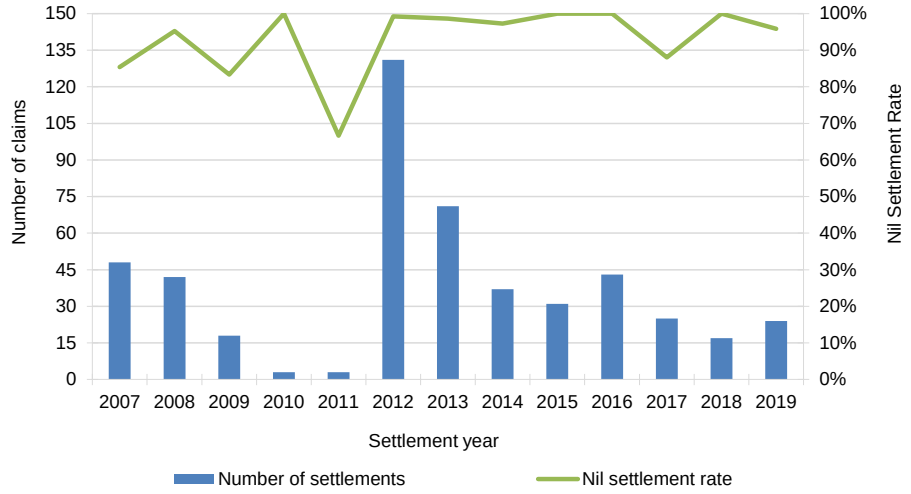
We have selected 10% as our nil settlement rate assumption, an increase from our previous assumption of 9%.

8.6 Workers Compensation claims

The nil settlement rates for Workers Compensation claims have been high and reflect the portion of claims whose costs are fully met by a Workers Compensation Scheme or Policy. The proportion of such claims which are fully met by insurance has been relatively stable since 1997/98, typically varying between 80% and 100%.

The nil settlement rate has been in excess of 90% for eight out of the past ten years, and it has been above 80% for nine out of the past ten years.

Figure 8.5: Workers Compensation nil claims experience



We have selected 96% as our nil settlement rate assumption, a decrease from our previous valuation assumption of 97%.

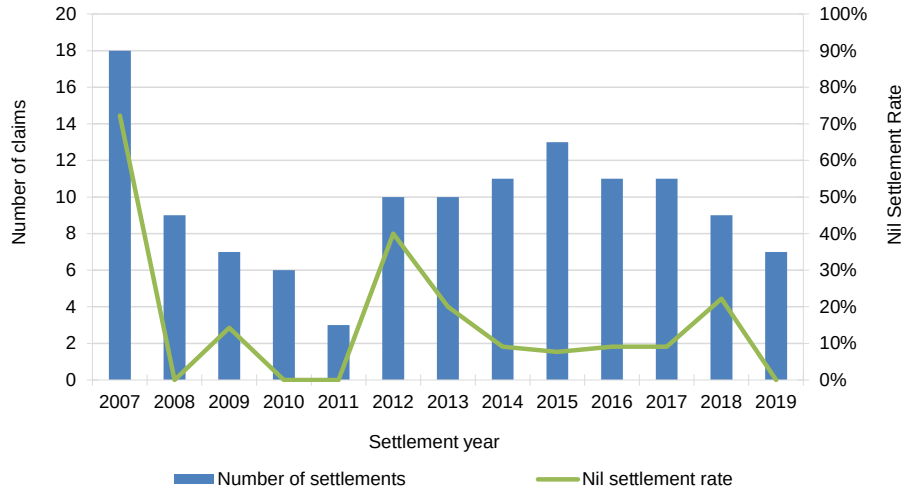
The overall financial impact of this assumption is not material.

8.7 Wharf claims

During the past ten years, the nil settlement rate has exhibited considerably volatility for wharf claims, varying between 0% and 40%.

The nil settlement rate for the past three years has averaged 11%, for the past four years it has averaged 11% and for the past five years it has averaged 10%.

Figure 8.6: Wharf nil claims experience



We have selected a nil settlement rate assumption of 10%, unchanged from our previous valuation assumption.

Given the low volume of claims activity for wharf claims, this assumption is highly subjective but is also not material to the overall liability assessment.

8.8 Summary assumptions

The following table provides a summary of our nil settlement rate assumptions at this valuation, and those assumed at the previous valuation.

Table 8.2: Summary nil settlement rate assumptions

	Current Valuation	Previous Valuation
Mesothelioma: Direct	4.0%	n/a
Mesothelioma: Cross	19.0%	n/a
Asbestosis	11.0%	12.0%
Lung Cancer	28.0%	25.0%
ARPD & Other	10.0%	9.0%
Wharf	10.0%	10.0%
Workers Compensation	96.0%	97.0%

Note: For mesothelioma, our previous valuation adopted an aggregate assumption of 7%.

9. Economic and Other Assumptions

9.1 Overview

The two main economic assumptions required for our valuation are:

- The underlying claims inflation assumptions adopted to project the future claims settlement amounts and related costs.
- The discount rate adopted for the present value determinations.

We also discuss the basis of derivation of other valuation assumptions, being:

- The cross-claim recovery rate; and
- The pattern of settlement of future reported claims and pending claims.

9.2 Claims inflation

We are required to make assumptions about the future rate of inflation of claims costs.

We have adopted a standard Australian actuarial claims inflation model for liabilities of the type considered in this report that is based on:

- An underlying, or base, rate of general economic inflation relevant to the liabilities, in this case based on wage/salary (earnings) inflation; and
- A rate of superimposed inflation, i.e. the rate at which claims costs inflation exceeds base inflation.

9.2.1 Base inflation

We have adopted a base (wage) inflation assumption for FY2021 onwards of 3.50% per annum. This is a slight reduction from our previous valuation assumption of 3.75% per annum.

We have made this reduction in light of continued low wage inflation and economic forecasts for future wage inflation in Australia, whilst also having regard to the lower ten-year government bond yields which are approximately 80 basis points lower than 12 months ago.

This assumption applies both to claims awards and legal costs.

9.2.2 Superimposed inflation

Superimposed inflation is a term commonly used by Australian actuaries to measure the rate at which average claims costs escalate in excess of a base (usually wage) inflation measure.

As a result, superimposed inflation is a "catch-all" for a range of potential factors affecting claims costs, including (but not limited to):

- Courts making compensation payments in relation to new heads of damage;
- Courts changing the levels of compensation paid for existing heads of damage;
- Advancements in medical treatments – for example, this could lead to higher medical treatment costs (e.g. the cost of the use of new drug treatments);
- Allowance for medical costs to rise faster than wages because of the use of enhanced medical technologies;
- Changes in life expectancy;
- Changes in retirement age – this would increase future economic loss awards;
- Changes in the relative share of the liability to be borne by the Liable Entities' (which we refer to as "the contribution rate") and which might result from changes in the number of defendants joined in claims;
- Changes in the mix of claims costs by different heads of damage; and
- Changes in the mix of claimants by age of claimant.

Additionally, superimposed inflation also captures those characteristics of claims experience which might have different relative claim sizes but which are currently modelled in aggregate (rather than explicitly and separately modelled). This includes factors such as:

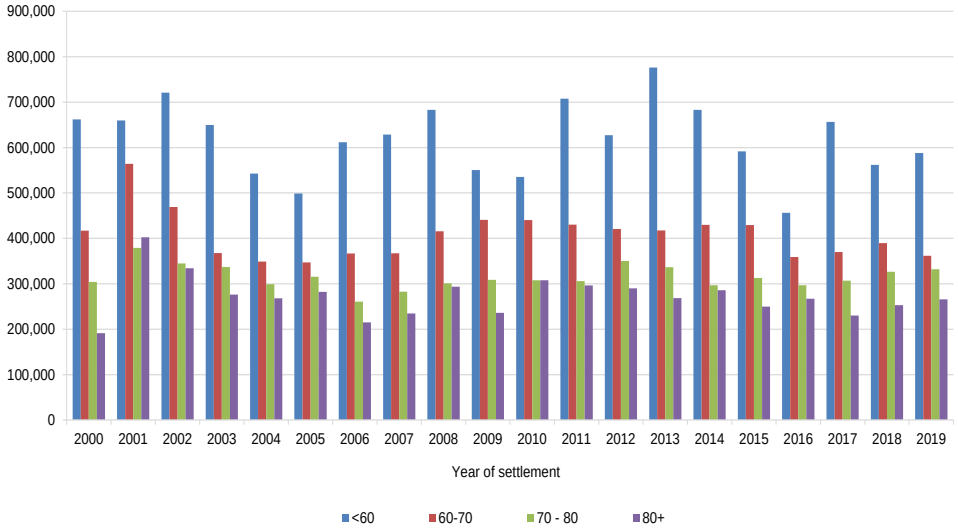
- Changes in the mix of claims between direct and cross claims;
- Changes in the mix of claims between renovator and non-renovator claims; and
- Changes in the mix of claims by the numbers of defendants to each claim.

Whilst the future rate of superimposed inflation is uncertain, and not predictable from one year to the next, it is of note that the average claim costs appear to have been relatively stable in recent years (after adjusting for wage inflation) and that, if anything, average claim sizes have trended downwards in recent years. As discussed elsewhere in this report, this reflects the changing mix of claimants by claimant age (shifting towards older claimants).

Furthermore, the emergence of new or expanding heads of damage does not tend to proceed smoothly but progresses in "steps", depending on the outcome of legislative and other developments.

We have reviewed the rate of inflation of claims costs by settlement year for the past 19 years for mesothelioma claims. We have assessed this by analysing inflated claim costs and therefore the following chart measures the trend in the rate of superimposed inflation.

Figure 9.1: Average mesothelioma awards of the Liable Entities (inflated to mid 2019/20 money terms) by age of claimant



For claimants under 60 years of age, the rate of superimposed inflation:

- Averaged (0.6)% per annum for 2000/01 to 2019/20;
- Averaged (1.2)% per annum for 2002/03 to 2019/20;
- Averaged 0.5% per annum for 2004/05 to 2019/20;
- Averaged (0.6)% per annum for 2007/08 to 2019/20.

For claimants 60-70 years of age, the rate of superimposed inflation:

- Averaged (0.7)% per annum for 2000/01 to 2019/20;
- Averaged (1.5)% per annum for 2002/03 to 2019/20;
- Averaged 0.2% per annum for 2004/05 to 2019/20;
- Averaged (0.1)% per annum for 2007/08 to 2019/20.

For claimants 70-80 years of age, the rate of superimposed inflation:

- Averaged 0.5% per annum for 2000/01 to 2019/20;
- Averaged (0.2)% per annum for 2002/03 to 2019/20;
- Averaged 0.7% per annum for 2004/05 to 2019/20;
- Averaged 1.4% per annum for 2007/08 to 2019/20.

For claimants 80+ years of age, the rate of superimposed inflation:

- Averaged 1.8% per annum for 2000/01 to 2019/20;

- Averaged (1.3)% per annum for 2002/03 to 2019/20;
- Averaged (0.1)% per annum for 2004/05 to 2019/20;
- Averaged 1.0% per annum for 2007/08 to 2019/20.

The actuarial approach for this report is to take an average view for superimposed inflation to be applied over the long-term, noting that there will necessarily be deviations from this average on an annual basis and that cashflows are projected for the next 50 or more years.

Weighing all of the evidence together, and in particular recognising that the period since 2000/01 has generally been benign, we have adopted an assumed long-term rate of future superimposed inflation of claims awards of 2.00% per annum.

This assumption is applied to the claim awards for all categories of claim and age cohorts.

There is no superimposed inflation applied to legal costs.

The assumption for superimposed inflation is unchanged from the previous valuation.

The outcome of this assumption is a "superimposed inflation allowance" of approximately $270m on a discounted central estimate basis and approximately $320m on an inflated and undiscounted central estimate basis.

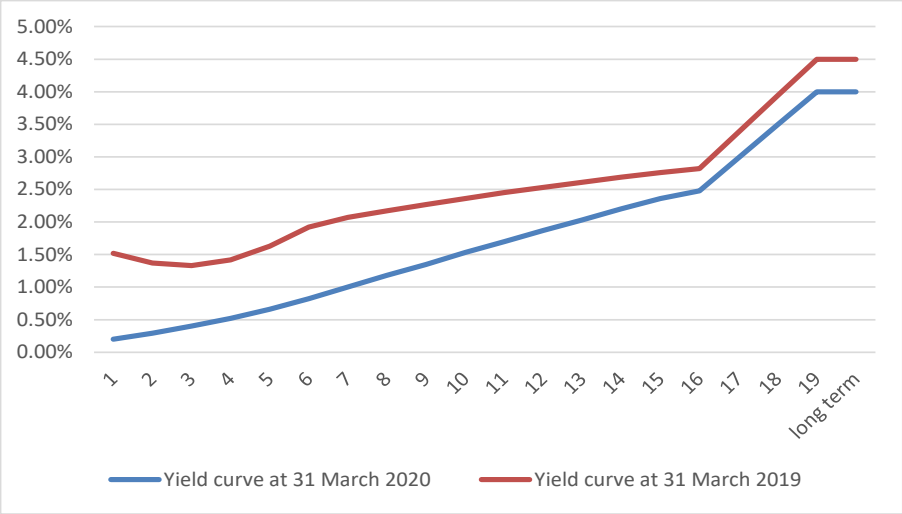
9.3 Discount rates: Commonwealth bond zero coupon yields

We have calculated the zero coupon yield curve at 31 March 2020 underlying the prices, coupons and durations of Commonwealth Government Bonds for the purpose of discounting the liabilities for this report.

The use of such discount rates is consistent with standard Australian actuarial practice for such liabilities, is in accordance with the Institute of Actuaries of Australia's Professional Standard PS302 and is also consistent with our understanding of the Australian accounting standards.

The chart below shows the assumptions for the current valuation and the previous valuation.

Figure 9.2: Zero coupon yield curve by duration



At this valuation, in light of the continued lower yields at long durations and particularly noting the approximate 40 basis point reduction in the year-16 yield between 31 March 2019 and 31 March 2020, we consider it appropriate to lower the long-term assumption from 4.50% per annum to 4.00% per annum.

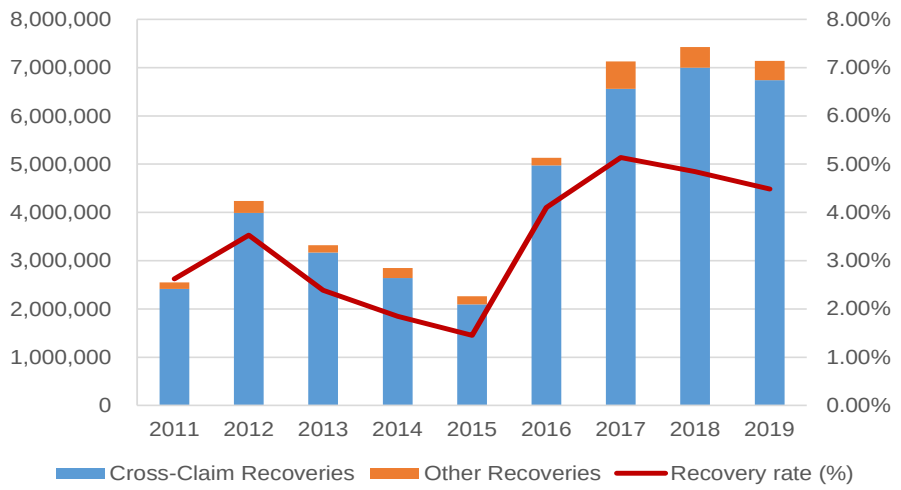
The reduction in the long-term discount rate has increased the Discounted Central Estimate by approximately $3m. This adjustment is relatively small because the vast majority of the future cashflows (more than 85%) are projected to be paid over the next 18 years.

By contrast, the reduction in the discount rates for durations 1 to 16 years has increased the Discounted Central Estimate by approximately $140m.

9.4 Cross-claim recovery rates

The following chart shows how the experience of cross-claim recoveries has varied over the last nine years, both in monetary terms and expressed as a percentage of gross payments.

Figure 9.3: Cross-claim recovery experience



Cross claim recoveries reduced year on year from 2012/13 to 2015/16, both in absolute terms and as a percentage of gross payments. The subsequent three years saw successive increases in the level of cross-claim recoveries, followed by a slight decrease in 2019/20, whilst still being at levels considerably above previous years.

Over the nine-year period, cross claim recoveries have been approximately 3.5% of gross payments.

In light of the additional year of experience and given the consistent level of recovery activity in each of the last four years, we have now increased our assumption for cross-claim recoveries to be 3.5% of claims awards (2019: 3.0% of claims awards).

9.5 Settlement Patterns

Triangulation methods are used to derive the past pattern of settlement of claims and are used in forming a view on future settlement patterns.

The following triangles provide an illustrative example of how we perform this:

Figure 9.4: Settlement pattern derivation for mesothelioma claims: paid as % of ultimate cost

Yr of Notification	0	1	2	3	4	5	6	7	8	9	10	11	12
2005	57.9%	92.3%	97.5%	97.5%	97.9%	99.4%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2006	61.7%	93.7%	97.6%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2007	53.3%	97.1%	99.5%	99.8%	99.8%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2008	67.3%	96.5%	97.7%	99.3%	99.9%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
2009	57.7%	88.4%	92.7%	99.2%	99.4%	99.8%	100.0%	100.0%	100.0%	100.0%	100.0%		
2010	71.7%	96.4%	99.7%	99.9%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			
2011	57.1%	96.9%	99.1%	99.7%	100.0%	100.0%	100.0%	100.0%	100.0%				
2012	55.7%	97.7%	99.7%	100.0%	100.0%	100.0%	100.0%	100.0%					
2013	65.3%	94.9%	99.6%	99.8%	100.0%	100.0%	100.0%						
2014	65.8%	96.6%	98.6%	99.5%	100.0%	100.0%							
2015	65.5%	96.3%	99.4%	99.8%	100.0%								
2016	57.3%	98.2%	99.2%	99.9%									
2017	55.4%	96.7%	98.4%										
2018	55.4%	96.4%											
2019	60.8%												

Figure 9.5: Settlement pattern derivation for non-mesothelioma claims: paid as % of ultimate cost

Yr of Notification	0	1	2	3	4	5	6	7	8	9	10	11	12
2005	19.6%	81.3%	94.6%	98.1%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2006	22.7%	72.0%	91.5%	94.7%	99.4%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2007	28.9%	83.1%	93.0%	99.6%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2008	26.1%	84.5%	95.6%	97.3%	99.7%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
2009	40.4%	77.7%	94.1%	95.9%	96.1%	97.5%	100.0%	100.0%	100.0%	100.0%	100.0%		
2010	26.1%	84.7%	95.7%	97.4%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			
2011	36.8%	90.1%	99.8%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%				
2012	38.7%	89.1%	98.4%	99.9%	99.9%	100.0%	100.0%	100.0%					
2013	28.4%	84.1%	95.7%	97.7%	98.9%	99.9%	99.9%						
2014	32.7%	90.6%	97.2%	99.8%	100.0%	100.0%							
2015	46.4%	88.9%	95.0%	98.5%	98.5%								
2016	23.6%	77.4%	95.0%	97.7%									
2017	36.5%	88.5%	93.5%										
2018	20.5%	81.6%											
2019	28.9%												

We have estimated the settlement pattern for future claim reporting as follows:

Table 9.1: Settlement pattern of claims awards by delay from claim reporting

Delay (years)	Mesothelioma	Non-Mesothelioma
0	60.0%	30.0%
1	36.0%	54.0%
2	2.5%	9.5%
3	1.0%	4.0%
4	0.5%	1.0%
5	0.0%	0.5%
6	0.0%	0.5%
7	0.0%	0.5%
8	0.0%	0.0%
9	0.0%	0.0%

These assumed settlements patterns have been modified slightly since our previous valuation, resulting in an assumption of a slight speeding-up for mesothelioma claim and non-mesothelioma claim settlements.

For mesothelioma, we have adopted one pattern because analysis of the average time to settlement for each of the four age groups was not materially different to the overall average time to settlement.

10. Valuation Results

10.1 Central estimate liability

At 31 March 2020, our projected central estimate of the liabilities of the Liable Entities (the Discounted Central Estimate) to be met by the AICF Trust is $2,025.2m (2019: $1,868.4m).

We have not allowed for the future Operating Expenses of the AICF Trust or the Liable Entities in the liability assessment.

The following table shows a summary of our central estimate liability assessment and compares the current assessment with our previous valuation.

Table 10.1: Comparison of central estimate of liabilities

	31 March 2020 $m			31 March 2019 $m
	Gross of insurance recoveries	**Insurance recoveries**	**Net of insurance recoveries**	**Net of insurance recoveries**
Total uninflated and undiscounted cash-flows	1,521.2	68.8	1,452.4	1,399.8
Inflation allowance	784.1	21.3	762.8	818.7
Total inflated and undiscounted cash-flows	**2,305.3**	**90.1**	**2,215.2**	**2,218.5**
Discounting allowance	(196.4)	(6.4)	(190.0)	(350.1)
Net present value liabilities	**2,108.9**	**83.7**	**2,025.2**	**1,868.4**

10.2 Comparison with previous valuation

In the absence of any change to the claim projection assumptions from our 31 March 2019 valuation, other than allowing for the changes in the discount rate, we would have projected a Discounted Central Estimate liability of $1,888.7m as at 31 March 2020.

The increase of $20.3m relative to the valuation result at 31 March 2019 is due to:

- A decrease of $122.2m, being the net impact of expected claims payments (which reduce the liability) and the "unwind of discount" (to reflect the fact that cashflows are now one year nearer).
- An increase of $142.5m resulting from reductions to the yield curve between 31 March 2019 and 31 March 2020, particularly relating to lower yields at durations below 15 years.

Our liability assessment at 31 March 2020 of $2,025.2m therefore represents an increase of $136.5m arising from changes to the actuarial assumptions. The change is principally a consequence of:

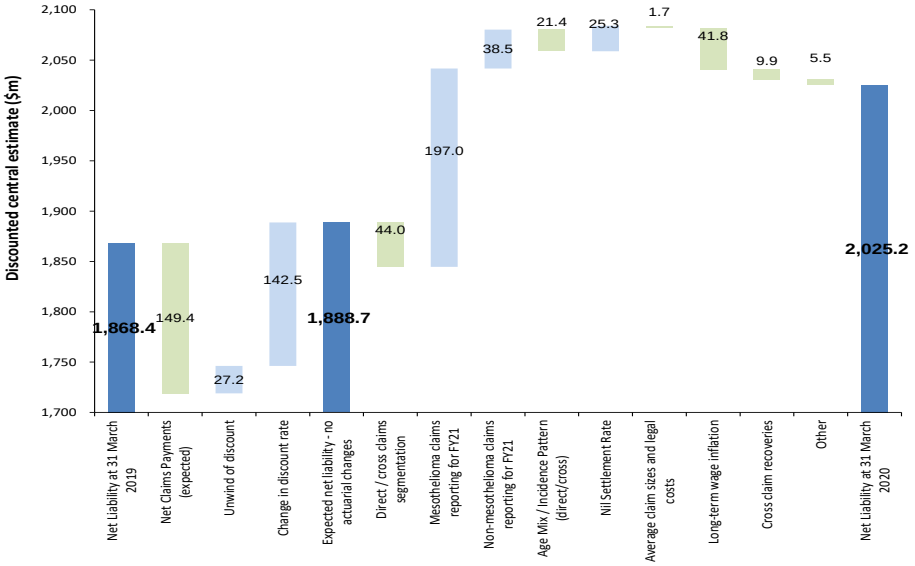
- An increase to the projected future number of mesothelioma claims given the higher numbers of claims reported in 2019/20;
- An increase to the projected future number of asbestosis claims given the higher numbers of claims reported in 2019/20; and
- A decrease to the assumed nil settlement rates for mesothelioma claims;

offset by

- Recognition of the change in mix of mesothelioma claims towards cross claims which are less costly than direct claims within the same age group;
- Recognition of the favourable mix of claims by claimant age, given the increased proportions of claims emerging from older age cohorts relative to previous assumptions;
- A decrease in the rate of future claims inflation by 25 basis points across all future years; and
- Higher assumed future cross-claims recovery rates.

The following chart shows an analysis of the change in our liability assessments from 31 March 2019 to 31 March 2020 on a discounted basis.

Figure 10.1: Analysis of change in central estimate liability (discounted basis)



Note: Green bars signal that this factor has given rise to a decrease in the liability whilst light blue bars signal that this factor has given rise to an increase in the liability.

10.3 Comparison of valuation results since 30 September 2006

We have analysed how our valuation results have changed since the Initial Report (as defined in the Amended Final Funding Agreement) at 30 September 2006.

The table below shows the results over time.

We have used the inflated and undiscounted results as the comparison. We consider this to be the most appropriate assessment as it removes the impacts of changes in discount rates and the "unwind of the discount".

Table 10.2: Comparison of net undiscounted valuation results since 30 September 2006

	FY2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY2017	FY2018	FY2019	FY2019
Valuation result at end of previous financial year	3,169	2,811	3,027	3,124	2,906	2,661	2,525	2,513	2,805	2,743	2,427	2,200	2,381	2,219
Net payments made (actual)	-32	-55	-93	-86	-76	-76	-86	-113	-121	-129	2	-124	-143	-142
Expected valuation result (no actuarial changes)	3,137	2,756	2,934	3,038	2,830	2,585	2,439	2,400	2,684	2,614	2,429	2,076	2,238	2,077
Actual valuation at end of financial year	2,811	3,027	3,124	2,906	2,661	2,525	2,513	2,805	2,743	2,427	2,200	2,381	2,219	2,215
Impact of actuarial valuation changes	-326	271	190	-132	-169	-60	74	405	59	-187	-229	305	-19	138
Cumulative changes since 30 September 2006	**-326**	**-55**	**135**	**3**	**-166**	**-226**	**-152**	**253**	**312**	**125**	**-104**	**201**	**182**	**320**

Note: For FY2007, the starting valuation ($3,169m) is the valuation at 30 September 2006, not the valuation at 31 March 2006.

The table shows that whilst there have been seven years where there have been increases and seven years where there have been decreases arising from changes to actuarial valuation assumptions, over the period from 30 September 2006 to 31 March 2020 the valuation has increased by approximately $320m (10% of the valuation contained in the Initial Report).

In terms of net cashflows, actual net payments of $1,274m have been made since 30 September 2006. This compares with an estimate of $1,467m projected for the same period (1 October 2006 to 31 March 2020) in the valuation at 30 September 2006.

After allowing for removal of the beneficial impact of HIH, Equitas and other commutations ($187m), actual net cashflows have been $6m (0.4%) lower than those projected in the valuation at 30 September 2006 for the period 1 October 2006 to 31 March 2020.

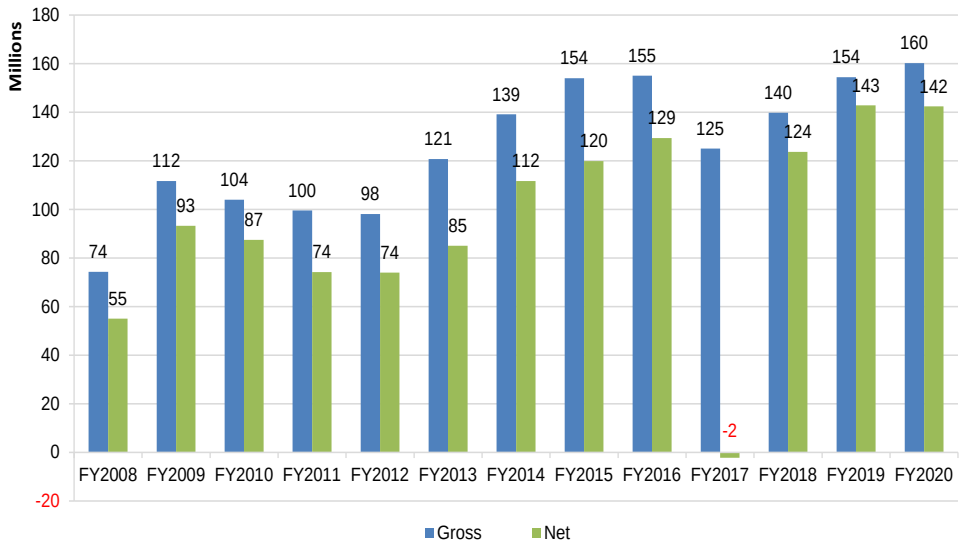
Gross cashflows over the same period have been $25m (1.5%) below those projected in the valuation at 30 September 2006 ($1,678m vs $1,703m).

10.4 Cashflow projections

10.4.1 Historical cashflow expenditure

The following chart shows the historical expenditure by the Liable Entities relating to asbestos-related claim settlements since the formation of AICFL.

Figure 10.2: Historical claim-related expenditure of the Liable Entities ($m)



Gross cashflow payments in the 12 months to 31 March 2020 were $160.2m. This was $1.2m (1%) higher than the gross cashflow projected for 2019/20 in our 31 March 2019 valuation ($159.0m).

Net cashflow payments in the 12 months to 31 March 2020 were $142.4m. This was $7.1m (5%) lower than the net cashflow projected for 2019/20 in our 31 March 2019 valuation report ($149.5m).

10.4.2 Key changes in cashflow projections by period of cashflow

The following table summarises how the projected cashflows compare between the current and previous valuation.

Table 10.3: Comparison of projected cashflows by period

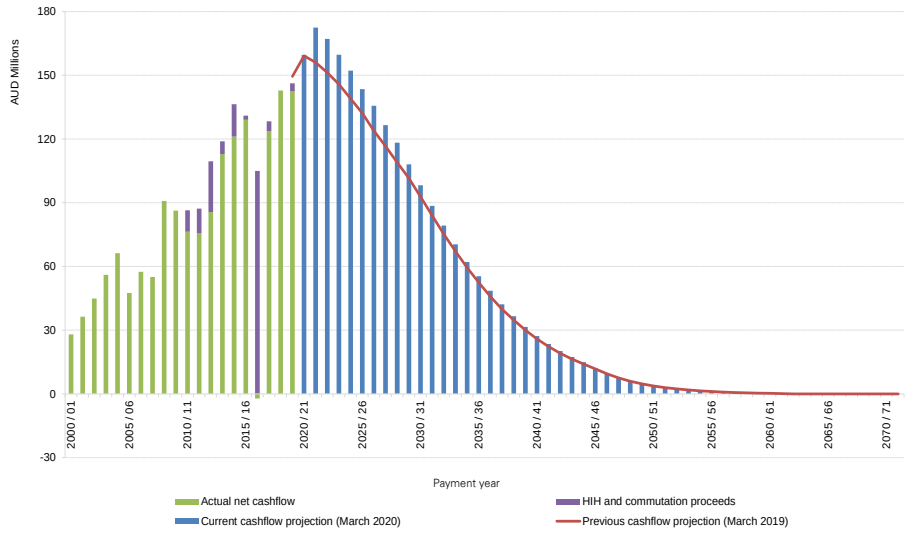
Cashflow Projections ($m)	Previous Valuation	Current Valuation	Valuation change	Valuation change (%)
FY2020	149	142	-7	-4.7%
FY21 - FY25	751	811	60	8.0%
FY26 - FY30	583	632	49	8.4%
FY31 - FY40	581	613	31	5.4%
FY41 - FY45	98	103	6	5.7%
1 April 2045 onwards	56	56	1	1.5%
Total	**2,219**	**2,358**	**139**	**6.3%**
FY2020 to FY2025	**901**	**953**	**53**	**5.9%**
FY2026 onwards	**1,318**	**1,404**	**86**	**6.5%**

Note: Figures may not add "on sight" due to rounding.

10.4.3 Future cashflow projections

The following chart shows the projected net cashflows underlying our current valuation and the projected net cashflow projection underlying our previous valuation at 31 March 2019.

Figure 10.3: Annual cashflow projections – inflated and undiscounted ($m)



Given the extremely long-tailed nature of asbestos-related liabilities, a small change in an individual assumption can have a significant impact upon the cashflow profile of the liabilities.

10.5 Amended Final Funding Agreement calculations

The Amended Final Funding Agreement sets out the basis on which payments will be made to the AICF Trust.

Additionally, there are a number of other figures specified within the Amended Final Funding Agreement that we are required to calculate. These are:

- Discounted Central Estimate;
- Term Central Estimate; and
- Period Actuarial Estimate.

Table 10.4: Amended Final Funding Agreement calculations

	$m
Discounted Central Estimate (net of cross-claim recoveries, Insurance and Other Recoveries)	2,025.2
Period Actuarial Estimate (net of cross-claim recoveries, gross of Insurance and Other Recoveries) comprising:	518.9
Discounted value of cashflow in 2020/21	*166.0*
Discounted value of cashflow in 2021/22	*179.3*
Discounted value of cashflow in 2022/23	*173.6*
Term Central Estimate (net of cross-claim recoveries, Insurance and Other Recoveries)	1,996.7

The actual funding amount due at a particular date will depend upon a number of factors, including:

- the net asset position of the AICF Trust at that time;
- the free cash flow amount of the James Hardie Group in the preceding financial year; and
- the Period Actuarial Estimate in the latest Annual Actuarial Report.

10.6 Insurance Recoveries

Our liability valuation has made allowance for a discounted central estimate of Insurance Recoveries of $83.7m.

This estimate is comprised as follows:

Table 10.5: Insurance recoveries at 31 March 2020

$m	Undiscounted central estimate	Discounted central estimate
Gross liability (net of cross claim recoveries)	**2,305.3**	**2,108.9**
Product liability recoveries	81.2	75.7
Bad and doubtful debt allowance (product)	(1.0)	(0.9)
Public liability recoveries	10.1	9.0
Bad and doubtful debt allowance (public)	(0.1)	(0.1)
Insurance recovery asset	**90.1**	**83.7**
Net liability	**2,215.2**	**2,025.2**
Insurance recovery rate	4.0%	4.0%
Bad and doubtful debt rate	1.3%	1.2%
Value of Insurance Policies per Facility Agreement		**74.7**

The combined bad and doubtful debt rate is 1.2% on a discounted basis (2019: 1.3%).

The AICF Facility Agreement requires the Approved Actuary to calculate the discounted central estimate value of certain Insurance Policies, being those specified in Schedule 5 of the AICF Facility Agreement.

At 31 March 2020 the discounted central estimate of the Insurance Policies, as specified in Schedule 5 of the AICF Facility Agreement, is $74.7m (2019: $72.8m).

11. Uncertainty

11.1 Overview

There is uncertainty involved in any valuation of the liabilities of an insurance company or a self-insurer. The sources of such uncertainty include, but are not limited to:

- Parameter error – this is the risk that the parameters and assumptions chosen ultimately prove not to be reflective of future experience.
- Model error – this is the risk that the model selected for the valuation of the liabilities ultimately proves not to be adequate for the projection of the liabilities.
- Legal and social developments – this is the risk that the legal environment in which claims are settled changes relative to its current and historical position thereby causing significantly different awards.
- Future actual rates of inflation being different from that assumed.
- The general economic environment being different from that assumed.
- Potential sources of exposure – this is the risk that there exist sources of exposure which are as yet unknown or unquantifiable, or for which no liabilities have yet been observed, but which may trigger future claims.

In the case of asbestos liabilities, these uncertainties are exacerbated by the extremely long latency period from exposure to onset of disease and notification of a claim. Asbestos-related claims often take in excess of 40 years from original exposure to become notified and then settled, compared with an average delay from exposure to settlement of 4-5 years for many other compensation-type liabilities such as Comprehensive Third-Party injury liabilities or other Workers Compensation liabilities.

Specific forms of uncertainty relating to asbestos-related disease liabilities include:

- The difficulty in quantifying the extent and pattern of past asbestos exposures and the number and incidence of the ultimate number of lives that may be affected by asbestos related diseases arising from such past asbestos exposures;
- The timing of the peak level and future pattern of incidence of claims reporting for mesothelioma;
- The propensity of individuals affected by diseases arising from such exposure to file common law claims against defendants;
- The extent to which the Liable Entities will be joined in such future common law claims;
- The mix of claimants by age, in particular noting the shift towards older claimants and which has had a downwards effect on average claim sizes in recent years;

- The mix of mesothelioma claims between direct claims and cross claims;
- The fact that the ultimate severity of the impact of the disease and the quantum of the claims that will be awarded will be subject to the outcome of events that have not yet occurred, including:
  - medical and epidemiological developments, including those relating to life expectancy in general;
  - court interpretations;
  - legislative changes;
  - changes to the form and range of benefits for which compensation may be awarded ("heads of damage");
  - public attitudes to claiming;
  - the potential for future procedural reforms in NSW and other States affecting the legal costs incurred in managing and settling claims;
  - potential third-wave exposures; and
  - social and economic conditions such as inflation.

11.2 Sensitivity testing

As we have noted above, there are many sources of uncertainty. Actuaries often perform "sensitivity testing" to identify the impact of different assumptions on future experience, thereby providing an indication of the degree of parameter error risk to which the valuation assessment is exposed.

Sensitivity testing may be considered as being a mechanism for testing "what will the liabilities be if instead of choosing [x] for assumption [a] we choose [y]?" It is also a mechanism for identifying how the result will change if experience turns out different in a particular way relative to that which underlies the central estimate expectations. As such, it provides an indication of the level of variability inherent in the valuation.

We have performed some sensitivity tests of the results of our central estimate valuation. We have sensitivity tested the following factors:

- **number of claims notified**: 10% above and below our central estimate assumption.
- **average claim cost of a non-nil claim**: 5% above and below our central estimate assumption.
- **nil settlement rate**: 2 percentage points above and below our central estimate assumption.
- **superimposed inflation**: being 0% per annum or 4% per annum over all future years.
- **mesothelioma incidence pattern**: we have tested the impact of shifting out the pattern of incidence by two further years.

There are other factors which influence the liability assessment and which could be sensitivity tested, including:

- The cross-claim recovery rate;
- The variation in timing of claim notifications (but with no change in the overall number of notifications); and
- The pattern and delay of claim settlements from claim notification.

We have not sensitivity tested these factors, viewing them as being of less financial significance individually.

We have not sensitivity tested the value of Insurance Recoveries as uncertainties typically relate to legal risk and disputation risk, and it is not possible to parameterise a sensitivity test in an informed manner.

We have not included a sensitivity test for the impact of changes in discount rates although, as noted in this Report, changes in discount rates can introduce significant volatility to the Discounted Central Estimate result reported at each year-end.

11.3 Results of sensitivity testing

The chart below shows the impact of various individual sensitivity tests on the Discounted Central Estimate of the liabilities, and of a combined sensitivity test of a number of factors.

Although we have tested multiple scenarios of each assumption, one cannot gauge an overall potential range by simply adding these tests together. Accordingly, we have prepared a range based on a combination of factors.

Figure 11.1: Sensitivity testing results – Impact around the Discounted Central Estimate (in $m)

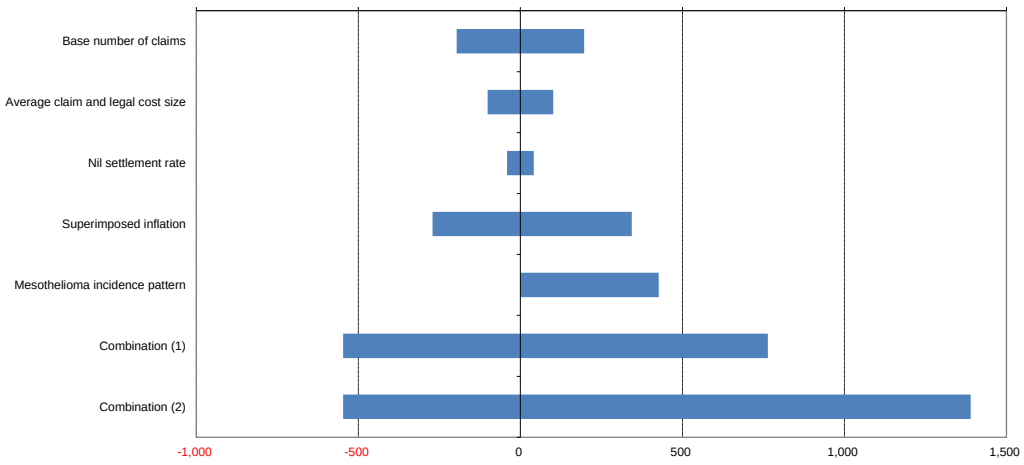
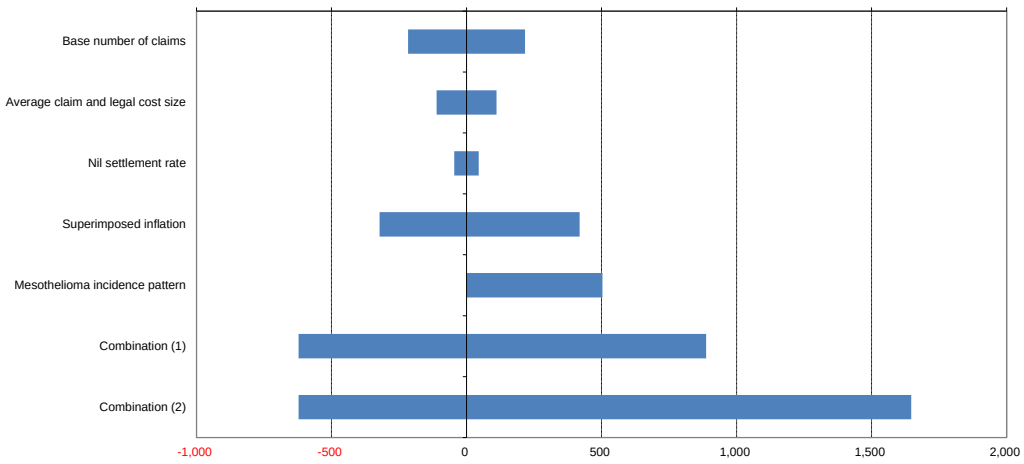


Figure 11.2: Sensitivity testing results – Impact around the undiscounted central estimate (in $m)



The single most sensitive assumption shown in the chart is the incidence pattern of mesothelioma claims reporting against the Liable Entities. Shifting the pattern of incidence by 2 years could add approximately $427m (21%) on a discounted basis to our valuation (as shown in Figure 11.1 by the scenario labelled "mesothelioma incidence pattern").

Table 11.1: Summary results of sensitivity analysis ($m)

	Undiscounted	Discounted
Central estimate	2,215.2	2,025.2
Low Scenario	1,593.6	1,478.2
High Scenario	3,861.7	3,414.9

Whilst the table above indicates a range around the discounted central estimate of liabilities of -$547m to +$1,390m, the actual cost of liabilities could fall outside that range depending on the actual experience.

We further note that these sensitivity test ranges are not intended to correspond to a specified probability of sufficiency nor are they intended to indicate an upper bound or a lower bound of all possible outcomes.

A Projected inflated and undiscounted cashflows ($m)

Payment Year	Mesothelioma Claims	Asbestosis Claims	Lung Cancer Claims	ARPD & Other Claims	Legal and Other Costs	Workers Compensation Claims	Workers Compensation Legal and Other Costs	Wharf Claims	Wharf Legal and Other Costs	Baryulgil	Cross Claim Recoveries	Gross	Insurance	Net
2020 / 2021	138.0	12.0	2.0	2.6	15.9	0.1	0.0	0.5	0.1	0.3	5.4	166.2	6.6	159.6
2021 / 2022	147.8	11.8	2.1	3.6	18.7	0.1	0.0	1.0	0.2	0.3	5.8	179.9	7.4	172.5
2022 / 2023	143.7	11.6	2.1	3.7	17.7	0.1	0.0	1.1	0.2	0.2	5.7	174.8	7.7	167.2
2023 / 2024	138.4	10.7	2.0	3.5	16.9	0.1	0.0	1.1	0.2	0.2	5.5	167.6	7.9	159.7
2024 / 2025	132.8	10.1	1.9	3.3	15.7	0.1	0.0	1.0	0.2	0.2	5.2	160.0	7.8	152.2
2025 / 2026	125.6	9.5	1.8	3.0	14.7	0.1	0.0	0.9	0.1	0.2	4.9	151.1	7.6	143.4
2026 / 2027	118.5	8.7	1.7	2.8	13.7	0.1	0.0	0.9	0.1	0.1	4.6	142.0	6.3	135.7
2027 / 2028	110.3	7.9	1.6	2.5	12.7	0.1	0.0	0.8	0.1	0.1	4.3	131.9	5.4	126.5
2028 / 2029	102.5	7.2	1.5	2.3	11.7	0.1	0.0	0.7	0.1	0.1	4.0	122.1	3.9	118.2
2029 / 2030	94.3	6.5	1.3	2.0	10.3	0.1	0.0	0.7	0.1	0.1	3.7	111.7	3.7	108.0
2030 / 2031	86.2	5.8	1.2	1.8	9.2	0.1	0.0	0.6	0.1	0.1	3.3	101.7	3.5	98.2
2031 / 2032	78.1	5.1	1.1	1.6	8.2	0.1	0.0	0.5	0.1	0.1	3.0	91.8	3.3	88.5
2032 / 2033	70.2	4.5	1.0	1.4	7.3	0.1	0.0	0.5	0.1	0.1	2.7	82.3	3.1	79.2
2033 / 2034	62.7	3.9	0.9	1.2	6.4	0.0	0.0	0.4	0.1	0.0	2.4	73.2	2.8	70.4
2034 / 2035	55.7	3.4	0.8	1.0	5.6	0.0	0.0	0.3	0.0	0.0	2.1	64.7	2.7	62.0
2035 / 2036	49.1	2.9	0.7	0.9	4.8	0.0	0.0	0.3	0.0	0.0	1.9	56.9	1.5	55.4
2036 / 2037	43.1	2.4	0.6	0.7	4.2	0.0	0.0	0.2	0.0	0.0	1.6	49.7	1.2	48.5
2037 / 2038	37.7	2.0	0.5	0.6	3.6	0.0	0.0	0.2	0.0	0.0	1.4	43.2	1.1	42.2
2038 / 2039	32.9	1.7	0.4	0.5	3.0	0.0	0.0	0.2	0.0	0.0	1.2	37.5	0.9	36.5
2039 / 2040	28.6	1.4	0.3	0.4	2.6	0.0	0.0	0.1	0.0	0.0	1.1	32.4	0.8	31.6
2040 / 2041	24.8	1.1	0.3	0.3	2.2	0.0	0.0	0.1	0.0	0.0	0.9	28.0	0.7	27.2
2041 / 2042	21.6	0.9	0.2	0.3	1.9	0.0	0.0	0.1	0.0	0.0	0.8	24.1	0.7	23.5
2042 / 2043	18.7	0.7	0.2	0.2	1.6	0.0	0.0	0.1	0.0	0.0	0.7	20.8	0.6	20.2
2043 / 2044	16.2	0.6	0.2	0.2	1.3	0.0	0.0	0.1	0.0	0.0	0.6	17.9	0.5	17.4
2044 / 2045	14.0	0.5	0.1	0.1	1.1	0.0	0.0	0.0	0.0	0.0	0.5	15.4	0.5	14.9
2045 / 2046	11.5	0.4	0.1	0.1	0.9	0.0	0.0	0.0	0.0	0.0	0.4	12.6	0.4	12.2
2046 / 2047	9.2	0.3	0.1	0.1	0.7	0.0	0.0	0.0	0.0	0.0	0.3	10.0	0.3	9.7
2047 / 2048	7.3	0.2	0.1	0.1	0.6	0.0	0.0	0.0	0.0	0.0	0.3	7.9	0.3	7.7
2048 / 2049	5.8	0.2	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.2	6.3	0.2	6.1
2049 / 2050	4.6	0.1	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.2	4.9	0.2	4.8
2050 / 2051	3.6	0.1	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.1	3.9	0.1	3.8
2051 / 2052	2.9	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.1	3.1	0.1	3.0
2052 / 2053	2.3	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.1	2.4	0.1	2.3
2053 / 2054	1.8	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	1.9	0.1	1.8
2054 / 2055	1.4	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	1.5	0.1	1.4
2055 / 2056	1.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	1.1
2056 / 2057	0.8	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.8
2057 / 2058	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.6
2058 / 2059	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.4
2059 / 2060	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3
2060 / 2061	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.2
2061 / 2062	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
2062 / 2063	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2063 / 2064	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2064 / 2065	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2065 / 2066	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2066 / 2067	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2067 / 2068	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2068 / 2069	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2069 / 2070	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2070 / 2071	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2071 / 2072	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	**1,945.4**	**134.4**	**26.7**	**40.9**	**214.9**	**1.6**	**0.4**	**12.6**	**1.9**	**2.2**	**75.7**	**2,305.3**	**90.1**	**2,215.2**

B Projected inflated and discounted cashflows ($m)

Payment Year	Mesothelioma Claims	Asbestosis Claims	Lung Cancer Claims	ARPD & Other Claims	Legal and Other Costs	Workers Compensation Claims	Workers Compensation Legal and Other Costs	Wharf Claims	Wharf Legal and Other Costs	Baryulgil	Cross Claim Recoveries	Gross	Insurance	Net
2020 / 2021	137.9	12.0	2.0	2.6	15.9	0.1	0.0	0.5	0.1	0.3	5.4	166.0	6.6	159.4
2021 / 2022	147.3	11.8	2.1	3.6	18.7	0.1	0.0	1.0	0.2	0.3	5.8	179.3	7.4	171.9
2022 / 2023	142.8	11.6	2.1	3.6	17.6	0.1	0.0	1.1	0.2	0.2	5.6	173.6	7.6	166.0
2023 / 2024	136.8	10.6	2.0	3.4	16.7	0.1	0.0	1.0	0.2	0.2	5.4	165.7	7.8	157.9
2024 / 2025	130.5	9.9	1.9	3.2	15.4	0.1	0.0	1.0	0.2	0.2	5.1	157.2	7.7	149.6
2025 / 2026	122.5	9.2	1.8	3.0	14.4	0.1	0.0	0.9	0.1	0.2	4.8	147.4	7.5	139.9
2026 / 2027	114.6	8.4	1.6	2.7	13.2	0.1	0.0	0.8	0.1	0.1	4.5	137.3	6.1	131.2
2027 / 2028	105.5	7.6	1.5	2.4	12.1	0.1	0.0	0.8	0.1	0.1	4.1	126.2	5.2	121.0
2028 / 2029	96.8	6.8	1.4	2.2	11.0	0.1	0.0	0.7	0.1	0.1	3.8	115.3	3.7	111.7
2029 / 2030	87.8	6.0	1.2	1.9	9.5	0.1	0.0	0.6	0.1	0.1	3.4	104.0	3.4	100.6
2030 / 2031	78.9	5.3	1.1	1.7	8.5	0.1	0.0	0.5	0.1	0.1	3.1	93.2	3.2	90.0
2031 / 2032	70.3	4.6	1.0	1.4	7.4	0.1	0.0	0.5	0.1	0.1	2.7	82.6	3.0	79.7
2032 / 2033	62.0	4.0	0.9	1.2	6.4	0.0	0.0	0.4	0.1	0.0	2.4	72.6	2.7	69.9
2033 / 2034	54.2	3.4	0.7	1.0	5.5	0.0	0.0	0.3	0.0	0.0	2.1	63.3	2.4	60.9
2034 / 2035	47.1	2.8	0.6	0.9	4.7	0.0	0.0	0.3	0.0	0.0	1.8	54.7	2.3	52.4
2035 / 2036	40.5	2.4	0.5	0.7	4.0	0.0	0.0	0.2	0.0	0.0	1.6	46.9	1.2	45.7
2036 / 2037	34.7	2.0	0.5	0.6	3.4	0.0	0.0	0.2	0.0	0.0	1.3	39.9	0.9	39.0
2037 / 2038	29.3	1.6	0.4	0.5	2.8	0.0	0.0	0.2	0.0	0.0	1.1	33.6	0.8	32.8
2038 / 2039	24.6	1.3	0.3	0.4	2.3	0.0	0.0	0.1	0.0	0.0	0.9	28.1	0.7	27.4
2039 / 2040	20.6	1.0	0.2	0.3	1.9	0.0	0.0	0.1	0.0	0.0	0.8	23.4	0.6	22.8
2040 / 2041	17.2	0.8	0.2	0.2	1.5	0.0	0.0	0.1	0.0	0.0	0.6	19.4	0.5	18.9
2041 / 2042	14.4	0.6	0.2	0.2	1.2	0.0	0.0	0.1	0.0	0.0	0.5	16.1	0.4	15.7
2042 / 2043	12.0	0.5	0.1	0.1	1.0	0.0	0.0	0.0	0.0	0.0	0.4	13.3	0.4	13.0
2043 / 2044	10.0	0.4	0.1	0.1	0.8	0.0	0.0	0.0	0.0	0.0	0.4	11.0	0.3	10.7
2044 / 2045	8.3	0.3	0.1	0.1	0.7	0.0	0.0	0.0	0.0	0.0	0.3	9.1	0.3	8.8
2045 / 2046	6.6	0.2	0.1	0.1	0.5	0.0	0.0	0.0	0.0	0.0	0.2	7.2	0.2	7.0
2046 / 2047	5.0	0.2	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.2	5.5	0.2	5.3
2047 / 2048	3.8	0.1	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.1	4.2	0.1	4.0
2048 / 2049	2.9	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.1	3.2	0.1	3.1
2049 / 2050	2.2	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.1	2.4	0.1	2.3
2050 / 2051	1.7	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	1.8	0.1	1.8
2051 / 2052	1.3	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.1	1.3
2052 / 2053	1.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	1.0
2053 / 2054	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.8
2054 / 2055	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.6
2055 / 2056	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.4
2056 / 2057	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3
2057 / 2058	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2
2058 / 2059	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2
2059 / 2060	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
2060 / 2061	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
2061 / 2062	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2062 / 2063	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2063 / 2064	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2064 / 2065	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2065 / 2066	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2066 / 2067	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2067 / 2068	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2068 / 2069	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2069 / 2070	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2070 / 2071	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2071 / 2072	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	**1,773.8**	**125.4**	**24.7**	**38.2**	**198.6**	**1.5**	**0.4**	**11.7**	**1.8**	**2.1**	**69.1**	**2,108.9**	**83.7**	**2,025.2**

C Glossary of terms used in the Amended Final Funding Agreement

The following provides a glossary of terms which are referenced in the Amended Final Funding Agreement and upon which we have relied in preparing our report.

The operation of these definitions cannot be considered in isolation but instead need to be considered in the context of the totality of the Amended Final Funding Agreement.

AICF means the trustee of the Asbestos Injuries Compensation Fund from time to time, in its capacity as trustee, initially being Asbestos Injuries Compensation Fund Limited.

These terms also need to be read in conjunction with the Deed of Amendment dated 19 December 2017 which added a new clause (13.4A) and which is effective from 1 January 2018.

AICF Funded Liability means:

(a) any Proven Claim;

(b) Operating Expenses;

(c) Claims Legal Costs;

(d) any claim that was made or brought in legal proceedings against a Former James Hardie Company commenced before 1 December 2005;

(e) Statutory Recoveries within the meaning and subject to the limits set out in the Amended Final Funding Agreement;

(f) a claim or category of claim which James Hardie and the NSW Government agree in writing is a "AICF Funded Liability" or a category of "AICF Funded Liability".

but in the cases of paragraphs (a), (c) and (d) excludes any such liabilities or claims to the extent that they have been recovered or are recoverable under a Worker's Compensation Scheme or Policy.

Claims Legal Costs means all costs, charges, expenses and outgoings incurred or expected to be borne by AICF or the Former James Hardie Companies, in respect of legal advisors, other advisors, experts, court proceedings and other dispute resolution methods in connection with Personal Asbestos Claims and Marlew Claims but in all cases excluding any costs included as a component of calculating a Proven Claim.

Concurrent Wrongdoer in relation to a personal injury or death claim for damages under common law or other law (excluding any law introduced or imposed in breach of the restrictions on adverse regulatory or legislative action against the James Hardie Group under the Amended Final Funding Agreement, and which breach has been notified to the NSW Government in accordance with Amended Final Funding Agreement), means a person whose acts or omissions, together with the acts or omissions of one or more Former James Hardie Companies or Marlew or any member of the James Hardie Group (whether or not together with any other persons) caused, independently of each other or jointly, the damage or loss to another person that is the subject of that claim.

Contribution Claim means a cross-claim or other claim under common law or other law (excluding any law introduced or imposed in breach of the restrictions on adverse regulatory or legislative action against the James Hardie Group under the Amended Final Funding Agreement, and which breach has been notified to the NSW Government in accordance with Amended Final Funding Agreement):

(a) for contribution by a Concurrent Wrongdoer against a Former James Hardie Company or a member of the James Hardie Group in relation to facts or circumstances which give rise to a right of a person to make a Personal Asbestos Claim or a Marlew Claim; or

(b) by another person who is entitled under common law (including by way of contract) to be subrogated to such a first mentioned cross-claim or other claim;

Discounted Central Estimate means the central estimate of the present value (determined using the discount rate used within the relevant actuarial report) of the liabilities of the Former James Hardie Companies and Marlew in respect of expected Proven Claims and Claims Legal Costs, calculated in accordance with the Amended Final Funding Agreement.

Excluded Claims are any of the following liabilities of the Former James Hardie Companies:

(i) personal injury or death claims arising from exposure to Asbestos outside Australia;

(ii) personal injury or death claims arising from exposure to Asbestos made outside Australia;

(iii) claims for economic loss (other than any economic loss forming part of the calculation of an award of damages for personal injury or death) or loss of property, including those relating to land remediation and/or Asbestos or Asbestos products removal, arising out of or in connection with Asbestos or Asbestos products manufactured, sold, distributed or used by or on behalf of the Liable Entities;

(iv) any Excluded Marlew Claim;

(v) any liabilities of the Liable Entities other than AICF Funded Liabilities.

Excluded Marlew Claim means a Marlew Claim:

(a) covered by the indemnities granted by the Minister of Mineral Resources under the deed between the Minister, Fuller Earthmoving Pty Limited and James Hardie Industries Limited dated 11 March 1996; or

(b) by a current or former employee of Marlew in relation to an exposure to Asbestos in the course of such employment to the extent:

(i) the loss is recoverable under a Worker's Compensation Scheme or Policy; or

(ii) the Claimant is not unable to recover damages from a Marlew Joint Tortfeasor in accordance with the Marlew Legislation;

(c) by an individual who was or is an employee of a person other than Marlew arising from exposure to Asbestos in the course of such employment by that other person where such loss is recoverable from that person or under a Worker's Compensation Scheme or Policy; or

(d) in which another defendant (or its insurer) is a Marlew Joint Tortfeasor from whom the plaintiff is entitled to recover compensation in proceedings in the Dust Diseases Tribunal, and the Claimant is not unable to recover damages from that Marlew Joint Tortfeasor in accordance with the Marlew Legislation.

Former James Hardie Companies means Amaca, Amaba and ABN 60.

Insurance and Other Recoveries means any proceeds which may reasonably be expected to be recovered or recoverable for the account of a Former James Hardie Company or to result in the satisfaction (in whole or part) of a liability of a Former James Hardie Company (of any nature) to a third party, under any product liability insurance policy or public liability insurance policy or commutation of such policy or under any other contract, including any contract of indemnity, but excluding any such amount recovered or recoverable under a Worker's Compensation Scheme or Policy.

Liable Entities see Former James Hardie Companies.

Marlew means Marlew Mining Pty Ltd (in liquidation), ACN 000 049 650, previously known as Asbestos Mines Pty Ltd.

Marlew Claim means, subject to the limitation on Statutory Recoveries, a claim which satisfies one of the following paragraphs and which is not an Excluded Marlew Claim:

(a) any present or future personal injury or death claim by an individual or the legal personal representative of an individual, for damages under common law or other law (excluding any law introduced or imposed in breach of the restrictions on adverse regulatory or legislative action against the James Hardie Group under the Amended Final Funding Agreement, and which breach has been notified to the NSW Government in accordance with the Amended Final Funding Agreement) which:

(i) arose or arises from exposure to Asbestos in the Baryulgil region from Asbestos Mining Activities at Baryulgil conducted by Marlew, provided that:

A. the individual's exposure to Asbestos occurred wholly within Australia; or

B. where the individual has been exposed to Asbestos both within and outside Australia, the amount of damages included in the Marlew Claim shall be limited to the amount attributable to the proportion of the exposure which caused or contributed to the loss or damage giving rise to the Marlew Claim which occurred in Australia;

(ii) is commenced in New South Wales in the Dust Diseases Tribunal; and

(iii) is or could have been made against Marlew had Marlew not been in external administration or wound up, or could be made against Marlew on the assumption (other than as contemplated under the Marlew legislation) that Marlew will not be in the future in external administration;

(b) any claim made under compensation to relatives legislation by a relative of a deceased individual (or personal representative of such a relative) or (where permitted by law) the legal personal representative of a deceased individual in each case where the individual, but for such individual's death, would have been entitled to bring a claim of the kind described in paragraph (a); or

(c) a Contribution Claim relating to a claim described in paragraphs (a) or (b).

Marlew Joint Tortfeasor means any person who is or would be jointly and severally liable with Marlew in respect of a Marlew Claim, had Marlew not been in external administration or wound up, or on the assumption that Marlew will not in the future be, in external administration or wound up other than as contemplated under the Marlew Legislation.

Payable Liability means any of the following:

(a) any Proven Claim (whether arising before or after the date of this deed);

(b) Operating Expenses;

(c) Claims Legal Costs;

(d) any liability of a Former James Hardie Company to the AICFL, however arising, in respect of any amounts paid by the AICFL in respect of any liability or otherwise on behalf of the Former James Hardie Company;

(e) any claim that was made or brought in legal proceedings against a Former James Hardie Company commenced before 1 December 2005;

(f) if regulations are made pursuant to section 30 of the Transaction Legislation and if and to the extent the AICFL and James Hardie have notified the NSW Government that any such liability is to be included in the scope of Payable Liability, any liability of a Former James Hardie Company to pay amounts received by it from an insurer in respect of a liability to a third party incurred by it for which it is or was insured under a contract of insurance entered into before 2 December 2005; and

(g) Statutory Recoveries within the meaning and subject to the limits set out in the Amended Final Funding Agreement,

but in the cases of paragraphs (a), (c) and (e) excludes any such liabilities or claims to the extent that they have been recovered or are recoverable under a Worker's Compensation Scheme or Policy.

Period Actuarial Estimate means, in respect of a period, the central estimate of the present value (determined using the discount rate used in the relevant actuarial report) of the liabilities of the Former James Hardie Companies and Marlew in respect of expected Proven Claims and Claims Legal Costs (in each case which are reasonably expected to become payable in that period), before allowing for Insurance and Other Recoveries, calculated in accordance with the Amended Final Funding Agreement.

Personal Asbestos Claim means any present or future personal injury or death claim by an individual or the legal personal representative of an individual, for damages under common law or under other law (excluding any law introduced or imposed in breach of the restrictions on adverse regulatory or legislative action against the James Hardie Group under the Amended Final Funding Agreement, and which breach has been notified to the NSW Government under the Amended Final Funding Agreement) which:

(a) arises from exposure to Asbestos occurring in Australia, provided that:

(i) the individual's exposure to Asbestos occurred wholly within Australia; or

(ii) where the individual has been exposed to Asbestos both within and outside Australia, damages included in the Marlew Claim shall be limited to the amount attributable to the proportion of the exposure which caused or contributed to the loss or damage giving rise to the Personal Asbestos Claim which occurred in Australia;

(b) is made in proceedings in an Australian court or tribunal; and

(c) is made against:

(i) all or any of the Liable Entities; or

(ii) any member of the James Hardie Group from time to time;

(d) any claim made under compensation to relatives legislation by a relative of a deceased individual (or personal representative of such a relative) or (where permitted by law) the legal personal representative of a deceased individual in each case where the individual, but for such individual's death, would have been entitled to bring a claim of the kind described in paragraph (a); or

(e) a Contribution Claim made in relation to a claim described in paragraph (a) or (b)

but excludes all claims covered by a Worker's Compensation Scheme or Policy.

Proven Claim means a proven Personal Asbestos Claim in respect of which final judgment has been given against, or a binding settlement has been entered into by, a Former James Hardie Company, to the extent to which that entity incurs liability under that judgment or settlement, or a Proven Marlew Claim.

Statutory Recoveries means any statutory entitlement of the NSW Government or any Other Government or any governmental agency or authority of any such government ("Relevant Body") to impose liability on or to recover an amount or amounts from any person in respect of any payments made or to be made or benefits provided by a Relevant Body in respect of claims (other than as a defendant or in settlement of any claim, including a cross-claim or claim for contribution).

Term means the period

(i) from the date on which the principal obligations under the Amended Final Funding Agreement will commence to 31 March 2045,

(ii) as may be extended in accordance with the terms of the Amended Final Funding Agreement.

Term Central Estimate means the central estimate of the present value (determined using the discount rate used in the relevant Annual Actuarial Report) of the liabilities of the Former James Hardie Companies and Marlew in respect of expected Proven Claims and Claims Legal Costs (in each case reasonably expected to become payable in the relevant period) after allowing for Insurance and Other Recoveries during that period, from and including the day following the end of the Financial Year preceding that Payment Date up to and including the last day of the Term (excluding any automatic or potential extension of the Term, unless or until the Term has been extended).

Workers Compensation Scheme or Policy means any of the following:

(a) any worker's compensation scheme established by any law of the Commonwealth or of any State or Territory;

(b) any fund established to cover liabilities under insurance policies upon the actual or prospective insolvency of the insurer (including without limitation the Insurer Guarantee Fund established under the Worker's Compensation Act 1987 (NSW)); and

(c) any policy of insurance issued under or pursuant to such a scheme.

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