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| **The StateGovernmentof Queensland acting through the Department of Agriculture and Fisheries**Investigating the feasibility of abolishinginsurance duty on agriculturalinsurance products |
| April 2019 |

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No warranty of completeness, accuracy or reliability is given in relation to the statements and representations made by, and the information and documentation provided by stakeholders consulted as part of the process.

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The findings in this report have been formed on the above basis.

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# Executive summary

The effect of weather events such as heatwaves, bushfires, droughts, floods and severe storms on agricultural production in Queensland can be devastating. Agricultural insurance is a key tool that farmers can use to prepare for, and respond to, business disruptions due to natural disaster and climate risks. There is a perception that agricultural insurance is underutilised in Queensland, and indeed Australia. Agricultural insurance offers primary producers a risk management tool that can be used to reduce the negative impacts of crop or livestock loss due to disease and/or a number of naturally occurring weather-related perils. Benefits of effective agricultural insurance include expedited recovery, improved access to credit and reduced call on government support after a disaster.

A key concern of the agricultural industry is that stamp duties, or insurance duties per terminology contained within the *Duties Act 2001* (Qld), on agricultural insurance products is hindering uptake. Additionally, industry bodies have been advocating for the removal of insurance duty on agricultural insurance, as they believe it would help accelerate the development of insurance products and markets that are tailored to the specific risks faced by Australian farmers.

The Queensland Government committed to work with industry to investigate the feasibility of abolishing insurance duty on agricultural insurance products, and reducing the reliance of primary producers on government assistance for managing climate risks such as drought and natural disasters.

For the purposes of this study agricultural insurance is defined to encompass products offered by traditional insurers that are aimed at managing production risk such as Multi-peril crop insurance (MPCI), fire, hail, flood, livestock insurance and other risk management products such as parametric insurance, weather index and yield index products.

**What is the current uptake of agricultural insurance and the impact of removing insurance duty?**

There is very little publicly available data relating the uptake of agricultural insurance in Australia and to claims made by farmers. Whilst insurers have provided some data, particularly on the value of premiums, there is less information available regarding claims given the commercial nature of this information and its direct use in pricing. Data that has been shared by insurers is broad in nature and is not specific to the Queensland market.

The Queensland Office of State Revenue confirms that it does not collect sufficient data to estimate how much insurance duty is collected on agricultural insurance products or how much revenue would be foregone because of an exemption. This finding mirrors the experience in other jurisdictions (except for New South Wales) where there is limited, if any, reliable data collected which would allow for a reasonable estimate of insurance duty collected and potentially foregone on agricultural insurance products.

The table below summarises the key observations relating to agricultural insurance uptake and potential impacts of removing insurance duties. These observations, are organised by class of insurance product, and are based upon information obtained through consultations with key stakeholders and desktop research.

 ***Table 1-1: Summary of insurance uptake and potential impacts of removing insurance duties***

| Product | Current Take-up | Estimated value of insurance duty collected  | Current Issues | Impact of removing insurance duty on uptake |
| --- | --- | --- | --- | --- |
| **Named peril crop insurance** | High | $3 - $5 million, depending on the season | Does not provide extensive coverage for perils such as drought which are impacting agriculture | Low – although farmers may extend coverage through lower excesses or increasing coverage to more crops |
| **Multi-peril crop insurance**  | Low | Anticipated to be insignificant in value due to the low take up | Relatively high cost as a percentage of sum insuredLow level of understandingModels have only been developed for broad acre and cotton crops | Low – Removal of insurance duty will have a limited impact on a product that is perceived as inherently expensive and not solve the issues across all crop types regarding the availability of models |
| **Parametric crop insurance** | Low | Not applicable  | Does not provide protection for all events and specific losses due to hail, for instance | Low – parametric insurance may not be classed as an insurance product and/or not attract a significant amount of insurance duty |
| **Livestock / bloodstock insurance** | Low | Uptake is minimal and, therefore, limited insurance duty collected | Risk of loss is perceived as low given expense | Low – as assumed to have minimal impact on take-up |

**What changes have occurred to insurance duty in other Australian States?**

From a State and Territory Government perspective, there have been ongoing changes to insurance duty rates and bases over the last 10 years. There is no single or unified approach being taken by the State and Territory Governments, however, there does appear to be trend towards abolishing insurance duty on agricultural insurance products as and when financial circumstances allow.

The table below summaries the general trends in respect of agricultural insurance duty since 1 July 2012 across all Australian jurisdictions:

***Table 1-2: Summary of general trends in agricultural insurance duty in Australia***

| Jurisdiction | Reform initiative | Commencement date |
| --- | --- | --- |
| NSW | Abolished crop and livestock insurance duty | * 1 January 2018
 |
| Victoria | Abolished insurance duty on insurance for multi-peril crop insurance (for all crops), as well as abolished livestock and agricultural machinery insurance  | * 1 July 2017
 |
| Queensland | Increased insurance duty for class 1 and 2 insurance products to 9% from 7.5% and 5% respectively | * 1 August 2013
 |
| Western Australia | No major initiatives |  |
| South Australia | Abolished insurance duty on multi-peril crop insurance | * 1 January 2018
 |
| Tasmania | Increased insurance duty rates from 8% to 10% | * 1 October 2012
 |
| Northern Territory | No major initiatives |  |
| Australian Capital Territory | Progressively abolished insurance duty on both general and life insurance | * 1 July 2012 (completed on 1 July 2016)
 |

Previous KPMG research, including that used by the Henry Tax Review, has found that insurance duties are one of the most inefficient taxes levied by government. This finding is consistent with the general consensus among economists that insurance dutyis inequitable and one of the least efficient ways for governments to raise revenues.

**Will abolishing insurance duty improve the uptake of agricultural insurance?**

The available evidence suggests that abolishing insurance duties on farm yield insurance products is unlikely to have a major impact on the rate of uptake. For named peril insurance, the uptake is already reasonably high and the sensitivity to price may not be particularly high. For MPCI, other impediments to uptake are likely to be more important. Overseas evidence indicates that without direct government support (e.g. by providing premium subsidies or re-insurance), MPCI is not commercially viable.

The analysis makes clear that the impact of abolishing insurance duties on farm yield insurance depends on supply and demand conditions in the market. This means, for example, that abolishing insurance duty, which is currently levied at a rate of nine per cent in Queensland, will most likely result in a reduction in the premium that is less than nine per cent. How much less depends on the relative elasticities of demand and supply in the market.

**What are the reasons to abolish insurance duty on agricultural insurance?**

The analysis suggests that abolishing insurance duties on agricultural risk insurance may be feasible on the basis that other States have already moved in this direction, potentially putting Queensland farmers at a competitive disadvantage. The consequences for government revenues are likely to be immaterial and such a policy provides some prospect for stimulating increases in uptake by reducing the cost of premiums.

The direct and indirect impact of insurance duties on farm yield insurance will be exacerbated if competitors of the impacted farmers are not subject to the same tax. For example, if a wheat farmer in Queensland pays insurance duty on yield insurance but a wheat farmer in NSW does not pay insurance duty on yield insurance then, other things equal, the wheat farmer in Queensland is at a competitive disadvantage to the wheat farmer in NSW. Similar arguments can be made in reference to overseas farmers.

**Is it feasible to abolish insurance duty on agricultural insurance?**

Having established there are justifications for the abolition of insurance duty on agricultural insurance, it is important to address whether this is then feasible to execute.

The Queensland Office of State Revenue has indicated that an exemption for agricultural insurance products will not be any more difficult to implement than other exemptions granted in recent times. In fact, noting the level of scrutiny to which they are subject to, insurers are seen as sophisticated and generally low-risk taxpayers who would be expected to comply with any exemption. Where possible, the Queensland Office of State Revenue ideally requests a lead-time of 12-18 months from initial consultation to the exemption being implemented so it can work with the Queensland Government and insurers to facilitate a smooth transition.

There are a number of definitional, system and enforcement issues that the Queensland Government will need to consider and resolve should it decide to proceed with abolishing insurance duty on agricultural insurance products.

Key issues include:

* The scope of any such exemption, particularly the fact that it would require new definitions and concepts not currently contained in the *Duties Act 2001* (Qld);
* Ensuring a clear policy rationale for the exemption is expressed as this will assist with interpretation; and
* Ensuring any change to the status quo is efficient to implement.

**What policy options are available to Queensland Government to improve uptake?**

Three categories of policy options have been considered:

1. *Maintaining the status quo (or business as usual).*

The status quo option for the Queensland Government is to maintain existing policy settings and allow the market to evolve over time with the development of new risk management products/techniques and reductions in cost of existing products/techniques facilitated by advances in technology and availability of information/data.

The status quo approach is underpinned by the assumption that the private market will be able to find a solution that is socially optimal without further government intervention.

1. *Insurance duty relief on farm yield insurance*

In the context of insurance of farm yields, insurance duty may result in farmers:

* Taking on less insurance than would be optimal in the absence of the tax; and
* Bearing risks that could be more effectively borne by others.

A consequence of the above is under-investment in the sector, which in turn means that farm production will be less than optimal and that the prices of agricultural commodities will be higher than optimal. In addition, insurance duties on farm yield insurance are a direct business cost that the farmer will seek to pass on to customers in the form of higher prices.

Abolishing insurance duties on agricultural insurance products is unlikely to have a significant impact on uptake. This is particularly the case for MPCI where other impediments are currently more pressing.

The main argument advanced for removing insurance duties on farm yield insurance in Queensland is that other states and territories have abolished or reduced insurance duties on agricultural insurance putting Queensland farmers a competitive disadvantage. Abolishing insurance duties on insurance products may improve the competitiveness of Queensland farmers and may result in a small increase in uptake. Both outcomes would be welcomed by the agriculture industry and the loss of government revenue is unlikely to be material.

1. *Options other than insurance duty relief that the government may consider to assist the farm sector deal with catastrophic weather events and natural disasters*

Previous Australian studies have not supported government subsidisation of MPCI program. The Queensland Government may want to conduct a fresh investigation into the costs and benefits of subsidising MPCI programs to consider any new evidence. Named peril insurance is widely adopted and, thus, subsidies would not greatly improve its uptake. Subsidies may be an option for redressing market failures in the market for MPCI and uptake and availability would potentially increase from a subsidy program. Such policies have proved effective in stimulating the uptake of MPCI in other countries but the economic cost, both in terms of the direct impact on government budgets and indirect impact in the form of market distortions, may be excessively large relative to the benefits. Previous studies have not found evidence of significant market failures in the agricultural insurance market. Further analysis using more recent information about the agricultural insurance market may be warranted.

Another suite of policy options that the Queensland Government may want to consider builds on the current commitment of resources to research, information gathering and dissemination through the Drought and Climate Adaptation Program. Investigation of the return to further investment by the government in this type of program may be warranted. Such an investigation may also examine whether some of the resources used in other state government programs, such as the Drought Relief Assistance Scheme could be more productively re-directed to targeted information generation. The availability of new digital technologies may provide opportunities to streamline and improve the scope for collecting and sharing information in a timely fashion.

Playing a role in the generation, collection and dissemination of information relating to farm risks related to climate may be an effective way for the government to help the farm sector to best prepare for such risks and to manage the outcomes once they occur.

# Introduction

The agricultural, forestry, fishing and food industries are central to the Queensland economy. From 34 per cent of Australia’s total farm area, Queensland grows 94 per cent of the nation’s sugar cane, has 47 per cent of the meat cattle herd, and produces 34 per cent of the nation’s cotton, 33 per cent of grains and 30 per cent of vegetables.[[1]](#footnote-2) The total value of Queensland’s primary industry output was forecast to be $20 billion in 2017–18, representing 3.6 per cent of the state economy.[[2]](#footnote-3)

Queensland has the largest area of agricultural land of any Australian state encompassing more than one point five million square kilometres of agricultural land.[[3]](#footnote-4) The figures below, obtained from the *Queensland agriculture snapshot 2018*,provide some context around the scale of the agricultural industry in Queensland.[[4]](#footnote-5)

 **Queensland agriculture snapshot 2018 fast figures2**

* Queensland covers a total area of over 1.7 million km2 and grazing occupies 85.9% of the state
* Queensland agriculture and food industries contributes A$19.87B in gross value product
* 57,000 people are employed in Queensland agriculture, forestry and fishing
* 46,700 people are employed in Queensland food and timber processing
* In 2018, Queensland horticulture products (fruit, nuts, vegetables) were valued at A$4.5b
* In 2018, Queensland livestock products were valued at A$9.3b
* In 2018, Queensland crops, cereals, grains, fibre and sugar cane were valued at A$4.7b

The sheer scale of the state and its agricultural land distribution sees Queensland encompass a variety of climates. These range from the temperate south to the tropical north and the arid west.[[5]](#footnote-6)

The sustained and widespread drought in Queensland, which has impacted the state since 2013[[6]](#footnote-7), has seen limited year-on-year growth in agricultural production. Forecasts into 2018-2019 are similarly bleak with the volume of agricultural production forecast to be nine per cent lower than in
2017-2018[[7]](#footnote-8).

The impact of natural disaster on agriculture is not limited to drought. Natural disasters encompass heatwaves, bushfires, droughts, floods, severe storms and tropical cyclones, earthquakes, tsunamis and landslides.[[8]](#footnote-9) A case in point, Cyclone Debbie in March 2017, was estimated to impact sugar and sorghum crop returns negative with losses of approximately $337 million. However, it should be noted that the additional rainfall was a benefit to other agricultural sectors – little relief for farmers directly impacted.

The natural disaster impact on agricultural production in Queensland can be devastating. This means farmers are wise to seek out and consider all risk management tools at their disposal.[[9]](#footnote-10) A key tool is agricultural insurance. This is perceived as being underutilised in Queensland, and indeed Australia.

## What is agricultural insurance?

Insurance is a well-established risk management tool which transfers the risk of loss from one entity to another in exchange for a premium. In business-to-business insurance, it can be seen as transferring risk from the balance sheet of the insured to the balance sheet of the insurer in return for a share of the long-term profit of the insured by way of premium. Agricultural insurance is no different, and enables producers to exchange risk with insurers in exchange for a premium.

Agricultural insurance offers producers the option to reduce the negative impacts of crop or livestock loss due to disease and a number of naturally occurring weather related perils such as fire, hail, frost, excessive or insufficient rainfall and excessive heat. Benefits of effective agricultural insurance include expedited recovery, improved access to credit, and reduced government liability in financing post-disaster reconstruction, which can often be more costly to government compared to well-functioning insurance programs.

A common concern of the agricultural industry is that the collection of insurance duties on agricultural insurance is hindering the uptake of insurance policies. For some time, industry bodies have been advocating for the removal of insurance duty on agricultural insurance, as they believe it would help progress the emerging insurance market for farmers in the state.

## Origin of the investigation and purpose of this report

The Queensland Government (or, interchangeably, the Government), in 2017, committed to working with industry to investigate the feasibility of abolishing insurance duty on agricultural insurance products, and reducing the reliance of primary producers on government assistance during natural disasters[[10]](#footnote-11).

To assist the Government in investigating the feasibility of this proposal, the Government commissioned KPMG to prepare a report addressing the benefits, risks and options that surround the abolition of insurance duty on agricultural insurance products (hereafter referred to as ‘this report’).

Both the Queensland Farmers Federation (QFF) and AgForce have made representations to the Government seeking an exemption from insurance duty for agricultural insurance products. The bodies are supportive of moves to remove insurance duty on agricultural insurance products. The abolition of insurance duty is argued to be a key factor to increase the availability and the sustainability of agricultural insurance in Queensland[[11]](#footnote-12), and this in turn improving the resilience of farmers across Queensland and reducing reliance on Government intervention.

The Insurance Council of Australia (ICA) was consulted by the Department of Agriculture and Fisheries (DAF) in February 2018 on this matter. The ICA’s position was that it is supportive of a removal of duty on all insurance products. Individual insurance companies offering crop insurance have also lobbied to have duty removed as an incentive to support the uptake of crop insurance.[[12]](#footnote-13)

## Scope of the project

The scope of this report was to consider:

* The current uptake, nature and value of agricultural risk management products in Queensland, including the number of claimants, the price of policies and an estimate of revenue to government in the form of insurance duty.
* What factors impede the greater uptake of agricultural risk management products such as agricultural insurance in Queensland, including to what extent the existence of insurance duty has on the uptake of agricultural risk management products such as insurance;
* What potential changes to Queensland Government policy could be considered, including changes to insurance duty, which could lead to an increase in the ability of primary producers to manage risk through products such as insurance;
* What impact, if any, have changes to insurance duty had in other Australian jurisdictions to the uptake of agricultural insurance, including an assessment as to the merits of different approaches to applying exemptions on agricultural insurance (i.e. costs of compliance with the new rules);
* An assessment of the risks associated with changing or removing insurance duty on agricultural risk management products (including the impact potential changes could have on insurers); and
* A comparison of the potential benefits of removing insurance duty on agricultural insurance including, for example, the potential impact on rural finance availability, and a comparison of the benefits of this action with other policy options the government could pursue to assist primary producers manage climate risk.

We note the use of the terms ‘farmers’ and ‘primary producers’ has been used interchangeably in this report.

The terms stamp duty (when discussing duties on insurance product) and insurance duty are taken to have the same meaning.

## Limitations

* There is limited data available publicly on agricultural insurance and claims information in particular. Whilst insurers have provided some data, particularly on the value of premiums, there is less information available regarding claims given the commercial nature of this information and its direct use in pricing.
* Data that has been shared by insurers with KPMG is broad in nature and is not specifically for the Queensland market. This is because the information has not been specifically captured and managed for the Queensland market in particular, reflecting the national scope of insurer’s operations.
* In the forming of the scope of work for this report, KPMG and DAF negotiated a variation that limited the number of scenarios considered within scope. As detailed in Section 6 of this report, we have developed analysis around the current status quo and a future state where insurance duty is abolished on agricultural insurance products. We have included high-level considerations and commentary regarding other scenarios that could be considered by Queensland Government.

## Exclusions

**Recommendations for abolishing insurance duty across all insurance products**

For the avoidance of doubt, KPMG is not expressing views on the abolition of insurance duty in general. While the report does acknowledge the general trends and policy positions towards insurance duty in Australia, this is necessary to understand the context within which the policy changes are being proposed and does not represent an endorsement of those trends.

**General and farm insurance products**

As explicitly highlighted in the terms of reference released by the Government, agricultural insurance products for this project are defined as products related to managing production risk such as MPCI, fire, hail, flood, livestock insurance and other risk management products such as but not limited to parametric insurance, weather index and yield index products. Agriculture is broadly defined including broad acre, livestock, forestry, horticulture primary production consistent with ANSIZ2006 definitions. Insurance obtained by primary producers that does not relate to managing risk such as insurance protecting property, infrastructure, home, contents and equipment was considered out of scope.

## Approach to the project

To execute the project, KPMG followed the approach set out below.

* Engaged with key stakeholders to collect relevant data designed to aid desktop research and analysis concerning the nature, value and context in which agricultural insurance is used in Queensland. This also informed the value of insurance duty collected by the Queensland Office of State Revenue (OSR).
* Engagement with key stakeholders included consultations with:
* DAF representatives;
* OSR representatives;
* Agricultural industry organisations AgForce, QFF and selected member organisations and individual members, to obtain insights as to the industries perspectives and views on the subject matter;
* Insurance industry representatives including, but not limited to, the ICA and representatives of insurers offering agricultural insurance products in Australia, for the purpose of obtaining insight and data.
* The consultations and desktop research and analysis was the basis upon which KPMG formed preliminary views about: (a) what factors impede the uptake of agri-risk insurance by primary producers; (b) what sectors of agriculture make the greatest use of insurance and other risk products; and (c) what impact insurance duties are likely to have on price and uptake. This included drawing out any insights from the available data regarding the sensitivity of demand for agricultural risk products to price changes.
* Discussions and analysis, involving the Victoria and NSW Government and Office of State Revenue representatives, to gain insights into the impact changes in insurance duty on agricultural insurance products have had in their jurisdictions.
* Completion of a risk analysis and an impact analysis to unpack the consequences, intended and unintentional, from changing or removing insurance duty on agricultural insurance products.

## Outline of the report structure and content

The remainder of this report is set out as follows:

* Section 3 provides an overview of the quantity, value and nature of agricultural risk products used in Queensland and the value of insurance duty revenues generated from these products. It also outlines the factors impeding greater uptake by primary producers, what sectors of agriculture make the greatest use of insurance and other risk products and the impact insurance duties have on price and uptake. This is based upon consultations with the Agricultural Industry Organisations representing the industry and directly from interviews with Primary Producers themselves. It also captures the essence of discussions with the Insurers offing agri-risk insurance products in the Queensland market.
* Section 4 analysis the trends across Australia with respect to the application of insurance duty on agricultural insurance products.
* Section 5 provides a conceptual overview of the economics of insurance duties and the potential impacts of abolishing insurance duty on agricultural insurance products.
* Section 6 considers policy options available to the Queensland Government for increasing the uptake of insurance and risk management products by the agriculture sector. It starts with a review of the rationale for Government assisting the farm sector before moving on to consider insurance duty relief on agricultural risk insurance products and other potential policy actions that can assist farmers manage risk.

# Overview of the agricultural insurance products in Queensland

The following sections provides a high-level summary of the available agricultural insurance products and their current position in the Queensland market. The information contained within this section was obtained through consultation with insurers offering agricultural insurance products, multiple Offices of State Revenue from across Australia, agricultural industry organisations and primary producers. The full list of consultations can be referred to in Appendix 1.

It should be noted limited agricultural insurance and claims information data is publicly available. Insurers provided some data on the premium side, there has been less information on the claims side given the commercial nature of this information and its direct use in pricing. In Australia, whilst external crop insurance data was collected until 2017, this was never collected for the Queensland market.

In the context of agricultural insurance products, the lack of publically available information and specific data relating to the Queensland market is not limited to crop insurance, but also applies to forestry, greenhouse (which are similar to crop), livestock and bloodstock insurance.

In terms of agricultural insurance offered in Australia, there are a number of types of insurance available, principally:

* Named peril crop insurance
* MPCI
* Parametric based crop insurance
* Livestock and bloodstock insurance

## Exploration of insurance by type

This sub-section captures insights obtained from consultations with the insurance industry. Relevant commentary has been added from discussions with agricultural industry organisations to elaborate upon certain points.

### Named peril insurance

#### Overview of Named peril insurance

Named peril insurance (NPI), also known as single peril insurance, is the most traditional and popular type of crop insurance globally, and typically provides protection against perils such as hail, frost and fire. The effects of these perils tend to be localised. The insurance protects the farmer against the risk of things which are outside of their control and, therefore, results in little moral hazard[[13]](#footnote-14) on the part of the farmer. There tends to be limited offering for the effects of drought, flood or cyclone type risks and therefore it does not provide the broad coverage of risks that a farmer might want to manage in a comprehensive risk management strategy.

NPI is concentrated in the broad-acre cropping sector although policies do exist for other agricultural activities. For example, brokers such as Agri-Risk offer named peril policies for horticulture and viticulture activities. We note that Queensland’s agricultural sector has a higher weighting to summer crops than elsewhere in Australia. The relative take up of NPI in Queensland will, therefore, be impacted by this.

Given that claims are driven purely by random external events, insurers are able to assess the risk to a reasonable degree and price for these risks appropriately. However, insurers will generally apply loadings for uncertainty when data is limited or out of date.

Based on our consultations, the market rates for named peril premiums tend to be around one to two per cent of the value insured, with the product being offered over a wide range of crop types. In the event that there is no claim, the final sum insured and therefore premium is based on the achieved yield in the season, which is adjusted following the season completion.

There are a number of different underwriters for this product however; it is not an overly large market. The expertise sits within specialist underwriting agencies rather than in the main stream underwriting functions of large insurers. Our understanding of the current competitive environment is that:

* QBE writes agriculture insurance through its Elders brand as it aligns with Elders’ rural focus, it is part of a strategy to maintain the sale of other insurances rather than a stand-alone business strategy.
* Allianz writes agriculture insurance through the Primacy underwriting agency.
* Swiss Re writes agricultural insurance through the Crop Risk Solutions underwriting agency.
* There are a small number of other underwriting agencies that write agricultural insurance, which are supported by syndicates in the Lloyds market.

#### Current uptake, and factors that impede the uptake of NPI

Based on our discussion with the various underwriters, we understand that farmers have a good understanding of the NPI products available. These are typically products used in the past. The insurers represented that typically in seasons where a good crop is expected, the take-up of these covers will be high at around 85 – 90 per cent of producers in broad-acre cropping situations across Australia. This take up was represented by insurers as consistent across all states. Information obtained from agricultural industry organisations indicate that uptake is around 50 per cent of all producers for which NPI is relevant and available.

The take-up is influenced significantly by the expectations a farmer has for the season. If the farmer believes that yields are likely to be low and therefore the volume of crop to be insured is lower, then the decision might be made not to insure the crop in that season. This is in part to minimise costs in seasons where revenue is more likely to be low. We are aware that for the 2017 and 2018 season, an insurer observed premium volumes drop by approximately 40 per cent in Queensland compared to the 2016 season primarily due to the variance in the expectation and final yield for the season. 2016 produced a high yielding season, whereas the two more recent seasons had drought expectations from the outset and a lower final yield.

Discussions with primary producers in the cotton industry supported the above insights. One producer detailed that in poorer seasons the business would only insure the planting costs of the crop (also referred to as input costs). This was to reduce the cost burden on the business when it was uncertain sufficient rainfall would occur. As the crop matured additional insurance may be purchased to lock-in the expected value of the crop.

Given this relatively high uptake, we would assess that there are no impediments to the purchase of NPI at this stage. Insurers have a good understanding of the risks involved in writing these perils due to a number of years of underwriting, i.e. internal claims data, as well as historical data that was collected by crop insurance Services. However, this data ceased being collected in 2017 and was never collected for the Queensland market. The lack of any external data would therefore now act as a barrier for entrants into this market.

#### Revenue generated by insurance duty charged on NPI

Based on information provided by insurers, we understand that for a normal non-drought effected crop season total gross written premium would be of the order of $30 - $50 million in Queensland. This is consistent with insurance duty of the order of $3 - $5 million, depending on the season.

The changing market size by year will be a barrier to insurer’s investing in and maintaining crop insurance. It is a partial explanation for the low number of insurers competing in this sector. All else being equal, in order to sustain a business across this cycle and uncertainty, we would expect profit margins to be higher than in insurance markets with reliable annual premiums. It is ultimately a natural aspect of the market and ultimately the impact of removing insurance duty is unlikely to have a material bearing on insurers’ views relative to this aspect.

### Multi-peril crop insurance

#### Overview of MPCI

MPCI protects against a much broader and in some cases comprehensive set of perils than NPI and will typically include coverage for drought, flood and cyclone in addition to pest and disease issues.

The benefit of a MPCI policy is that claims can be payable based on two main metrics, as follows:

* **Yield based** – This is where the yield per hectare (e.g. tonnes per hectare) is guaranteed to a certain level. The level being selected by the insured at a certain price. Whilst this provides protection in the case where the yield is low, it does not provide protection in the case of a significant drop in the price of the crop. For yield based covers, in those cases where the crop yield is low but the price of the crop is higher than expected a claim is still triggered. It is quite common for the price to rise in such circumstance due to market supply shortages. In such cases the farmer might make more overall profit from the crop than expected but still receive a claim payment. This goes against the principle of insurance, which is to restore the policyholder back to their original state. From the farmer’s perspective, in the long term, premiums will be higher than is necessary.
* **Revenue based** – This looks more broadly at the revenue base of the farmer as the basis for insurance and therefore factors in both the yield and the price as part of the insurance package. This basis aligns better with the principle of restoration. This is seen as a much stronger coverage from the farmer’s point of view as it provides certainty on the outcomes for the farm from a revenue point of view and provide support for financing. It also means that observed volatility in crop/commodity prices will have a strong influence on the potential benefit of this insurance, for instance if crop prices are at a historical high then the farmer might believe there is a lower risk to their income and not seek to protect their crop for this risk.

#### Current uptake, and factors that impede the uptake of MPCI

Currently, the market for MPCI is significantly less mature than the NPI market. There have been multiple entrants into the insurance market over time, however, none has achieved a significant market presence, there has been limited uptake and a number of companies have left the market.

The reasons for the more limited uptake of MPCI include:

* A lack of detailed understanding by brokers and farmers of the product and how it works. This is different to the understanding of NPI.
* The need to undertake a historical income assessment for the farm, which needs to be paid by the farmer prior to the insurance quote. Our understanding is that this is an up-front cost ($5,000 based on information on the Latevo website[[14]](#footnote-15)) and acts a disincentive for farmers to consider this form of insurance, even with the current rebate available through the federal government Managing Farm Risk Programme[[15]](#footnote-16). This provides half of the costs incurred by eligible farm businesses, up to a maximum of $2,500 (GST exclusive), in the production of information to gain an insurance quote. The rebates are not for insurance policy premiums.
* A relatively high cost of the insurance in comparison to NPI. Discussions with industry participants suggest that the premium to cover input costs, e.g. seed, fertiliser and fuel, would be of the order of 10 per cent of sum insured, whereas in order to incorporate a profit component would be of the order of 20 per cent of the sum insured.

For the 2018/19 season, we understand that there has been a lower appetite for insurers to offer MPCI given the upfront knowledge that drought conditions were likely to be prevalent across Australia. Insurers that did provide this coverage were aware that there was an increase in the uptake, which could be due to the expected drought conditions indicating anti-selection[[16]](#footnote-17) against these insurers, which was closely monitored. However, insurers noted that they tend to take a longer-term view of risk and once a market is established would seek to provide long term pricing to avoid the volatility of the climate cycle for the farmer. Long term and multi-year deals do not appear to be a feature of the current market.

We also note that MPCI requires development by crop type to ensure that the overall risk can be appropriately assessed and priced by the insurer. Because of this, MPCI is at present only available for broad-acre, of which there is less grown in Queensland compared to other states.

Consultations with primary producers and agricultural industry organisations highlighted that the price of the product was as the primary limiting factor for farmers. Additionally, discussions revealed a need for education of the industry about the MPCI product with farmers having limited experience broadly with the product. While there is a great deal of attention upon the product, especially by organisations such as GrainGrowers, MPCI was represented as being complex and largely still developing as an option for many producers.

Discussions indicated that MPCI was largely limited to broad-acre cropping and cotton, with little uptake by other forms of intensive horticulture. The other limitation of MPCI is the narrow band of agricultural industries that seek to use the MPCI-style product. This appears to be the result of the naming and marketing of the product itself, which has been suggested could be broadened to include livestock and horticulture.

Through discussion with underwriters, the volume of data and effort required to develop models to provide insurance for the majority of crops written in Queensland would be uneconomical in the short term. Investment in the improvement in data that would facilitate the development of MPCI solutions for Queensland Summer crops may be of benefit.

#### Revenue generated by insurance duty charged on MPCI

It is anticipated, based upon consultations with insurers, that there are limited premiums written in Queensland on a multi-peril crop basis and therefore limited insurance duty collected

We also note that insurance duty is not the primary factor influencing in the availability or uptake of MPCI in Queensland at this time and has, if any, a limited impact on what take-up there is of this insurance in the State. Primary producer knowledge of the product and experience in its application as well as the offering of suitable products by insurers affect availability and uptake to a much greater extent than the impact of insurance duties. If the uptake were higher, insurance duty would likely become a barrier at a certain level of uptake by industry.

### Parametric based insurance

#### Overview of parametric based insurance

Parametric based insurance, also known as index-based cover, generally uses an index to structure payments to the farmer. The product responds in the event that the pre-defined metric is not met at a time or across a period. Noting the reliance on defined metrics, rather than quantifiable losses, the reliability, availability and objectivity of the metrics are key. Metrics are therefore typically based on external data, for example data publicly available from the Bureau of Meteorology.

An example of a trigger might be that the number of days which fall above or below a specified amount of rainfall, other examples are based upon temperature and hours of sunlight.

Parametric insurance products offer producers different approaches to mitigating risks farmers face. An example outlined by Marsh & McLennan Insights[[17]](#footnote-18) outlines that financial institutions could create a program that offers access to credit backstopped by a parametric such as drought insurance to enable the financial institution to provide farmers with loans for agricultural products such as seeds and fertilizers. Such a use of insurance could aid in replanting and recovery of farm businesses after prolonged drought or when confidence in weather conditions is low. As discussions with AgForce revealed, the financial strain during droughts limits the capacity of producers to recover when seasons eventually improve. This results in a delay to the accumulation of farm revenues, which may be used to fund farm management deposits and prepare for the next poor season.

Parametric insurance is a complementary product to traditional forms of insurance and may assist when there are significant business interruptions, which are greater than the direct costs of the loss. The other advantage to parametric insurance is the broad range of industries that could utilise the product. The product can be tailored to the needs of various stakeholders spanning the agricultural value chain, from input suppliers to commodity processors.

Variations to the weather derivatives style product are yield index insurance or area yield index insurance.

#### Current uptake, and factors that impede the uptake of parametric based insurance

Based on insurance industry consultations we understand that whilst there has been some interest in these products, and reasonably active promotion by some insurers and reinsurers, there has not been significant uptake as:

* The product only protects against the peril considered and does not provide a comprehensive solution. For instance, rain being above the required threshold does not guarantee that yield will be as expected and it does not protect against the more traditional perils.
* The product is complex, it requires some explanation and might not be understood. It is critical to identify where a parametric solution is appropriate and relevant to a business. This is because purchasing a parametric solution requires a different approach to traditional insurance purchasing[[18]](#footnote-19). Extension and education of the agricultural sector will be important to the development of demand for the product.
* Markets are not well established.
* Parametric solutions typically cover very large exposures and are tailored to each circumstance which may inhibit the ability to develop standard products
* The size of Queensland will increase the basis-risk given metrics collected at specified sites may not be reflected of events within farm boundaries. Products could be developed using dedicated sensors but this may be cost prohibitive and/or raise fraud risk and therefore appears as a major barrier for most risks.
* Discussions with agricultural industry organisations agreed with the representations of the insurance companies. While there was promise in the parametric solutions, the take up was very low amongst their members.

#### Revenue generated by insurance duty charged on parametric based crop insurance

In general, this could be considered a standard derivative product and therefore might not be considered an insurance product and not attract insurance duty[[19]](#footnote-20).

Regardless, we expect the revenue generated to be very small in quantum given the low uptake across the agricultural industry in Queensland.

### Livestock/bloodstock insurance

#### Overview of Livestock/bloodstock insurance

Farms and other businesses that raise or house livestock may be prone to severe financial loss if the animals are injured or die due to accidents or disease. They can protect themselves against the loss of valuable animals by purchasing livestock insurance. Livestock insurance provides protection in the event of a loss from the death of either livestock or bloodstock.

#### Current uptake, and factors that impede the uptake of livestock/bloodstock insurance

Based on discussions with the market and our industry knowledge, we are not aware of any Australian based insurers, which provide this type of insurance. Any insurance written is more likely to be placed through brokers and with syndicates in the Lloyds market.

This is consistent with recent press reports of the devastating flooding in Queensland’s northwest. As part of the reporting of this the ICA confirmed, “relatively few primary producers chose to insure stock”, consistent with the lack of coverage being provided in the market.

It was noted by one insurer that in some cases, livestock insurance might be included as an extension within farm pack policies, where the coverage is incidental. For instance, where there is a small number of cattle and this is not the principal risk being insured. Therefore, there is the potential that any change for livestock could impact a number of policies for which the information might not be easily available.

#### Revenue generated by insurance duty charged on livestock/bloodstock insurance

Given the above, we would estimate the premium for Livestock/Bloodstock insurance written in Queensland to be minimal and therefore limited insurance duty collected.

### Summary of key observations by class of insurance

The following table summarises the key observations by class of insurance:

Table 3‑1: Summary of key observations by class of insurance

|  |  |  |  |
| --- | --- | --- | --- |
| Product | Current Take-up | Current Issues | Impact of removing insurance duty |
| **Named peril crop insurance** | High | Does not provide extensive coverage for perils such as drought. | Low – although farmers may extend coverage through lower excesses or increasing coverage to more crops |
| **Multi-peril crop insurance** | Low | Relatively high cost as a percentage of sum insuredLow level of understandingModels have only been developed for Broad acre and Cotton crops | Low – Removal of insurance duty will have a limited impact on a product that is perceived as inherently expensive and not solve the issues across all crop types regarding the availability of models |
| **Parametric crop insurance** | Low | Does not provide protection for all events and specific losses due to hail, for instance. | Low – parametric insurance may not be classed as an insurance product and/or not attract a significant amount of insurance duty[[20]](#footnote-21) |
| **Livestock / bloodstock insurance** | Low | Risk of loss is perceived as low given expense. | Low – as assumed to have minimal impact on take-up |

## Impact of insurance duty changes on insurers

Having spoken to a number of insurers, we are aware that there were a number of broader issues in the implementation of the removal of insurance duty in other states that warrant consideration beyond matters of increasing take-up as follows:

* **Definitional** – Any change needs to be based on a clear definition of product, adequately defined to cover confidently the products under consideration, so that it can be clearly understood by insurers, rather than being a subjective decision. Based on our understanding of the proposed change to be made by the Government, this appears to be consistent with this sentiment.
* **System Implementation** - Depending on how a system is implemented the cost reduction for farmers may be outweighed by the cost of adapting to the change which might be passed on. For example, in South Australia a crop insurance stamp duty exception has been implemented for products which include a drought protection. It is our understanding that prior to the change most insurers could not easily monitor indicators for this type of protection on their systems leading to system change requirements. Even if this type of restriction only impacts a relatively small number of contracts provided it reduces any positive impact of change.
* **Transition timeframe** – A period of transition needs to be provided to insurers in order to allow for the transformation of systems to be made. Based our discussions with insurers, this period could be as low as three months for simple and clear changes. If multiple indicators are required to be used in order to understand the eligibility of the exception, the timeframe might need to be up to one year. Insurers noted that the small business exception that was implemented in NSW recently was difficult to implement as the business revenue was not necessarily collected in all cases across all lines of business, particularly for those where it was not a risk metric.
* **Incidence insurance** – It is normal practice to provide incidental coverage for additional immaterial risks and therefore provide a complete solution for the insured. An example where this is relevant for agricultural insurance products is the inclusion of a small number of animals within a farm pack policy. In order to avoid a significant increase in data required to be held on insurers systems, care needs to be taken in how these types of incidental coverage are considered for the exception as they typically have very low dollar value and it would have no impact on any take-up of coverage.

Having noted the potential challenges to implementation, insurers were appreciative of the engagement to understand their perspective.

## Views of the agricultural industry organisations and primary producers

This sub-section summarises the key points of the agricultural industry with respect to the application of insurance duty on insurance and more broadly what can be done to reduce the reliance upon Government by the industry. The commentary is organised into key points raised by the agricultural industry organisations and their members.

### Insurance duty drives cost of insurance up decreasing uptake

The overarching view of all agricultural industry organisations and primary producers consulted is that insurance duty is an unnecessary burden upon farmers. Consultations with farmers revealed a definite change in purchasing behaviours when seasons are expected to be poor. Farmers cited this as demonstrating the impact that the cost of policies has on the uptake. When cash was expected to be tight, insurance was represented as being more at risk of being cut back. However, all agricultural industry organisations consulted noted that the benefits of insurance are widely recognised, where a suitable product is available, however the value insured will be minimised due to the cost.

Paying insurance duty on insurance was repeatedly quoted as a factor influencing the decision to minimise the value insured. It was not seen as a cost adding any benefit to the farmer and was felt to be a disincentive to taking out higher levels of insurance.

### Self-reliance is the goal

While there was universal agreement that the industry was greatly appreciated of the State Government’s support throughout the drought and recent natural disasters across the State, the agricultural industry organisations emphasised a desire to reduce reliance on Government assistance in the future. Self-reliance of the industry was seen as key for the ongoing viability of the industry.

However, it was acknowledge that this was the desired outcome which might not be achieved without Government support both at a State and Commonwealth level.

### MPCI is a desirable insurance product to broad-acre cropping

MPCI was quoted consistently as a type of insurance, which holds the significant promise in the view of most of the agricultural industry organisations industry bodies – namely those producing crops, especially of a broad-acre nature.

While it was acknowledged that NPI is a core product in farmers risk management toolkit, MPCI was represented as a tool that allowed farmer to make better decisions and be less risk adverse. This enabled more progressive management approaches by farmers to realise high value opportunities, be these better yield or price situations.

GrainGrowers provided an example where a grower, using MPCI could afford to plant earlier in a season, an approach which can result in increased productivity and reduces the likelihood or decision making on low probability risk events (described as events occurring at least one in ten years). This means that instead of fearing a one-in-ten crop failure, the farmer can plant confidently knowing they can achieve a minimum outcome. This was noted as being able to encourage significant growth in agriculture as accurate and meaningful data on the actual risks can be measured and made transparent. The highly risk adverse nature of some operations was thought to perhaps be limiting industry growth.

### More variety of insurance products are needed to be developed

While MPCI was recognised as a highly useful product for some, the agricultural industry organisations representing the livestock, horticulture and non-cropping industries pointed out the attention was needed to develop the livestock insurance market.

Consistent with the representations of the insurers, very limited uptake of livestock insurance was noted by the livestock industries outside of the insurance of critical breeding animals (such as high value bulls). In the livestock industries, such as the beef cattle sector, virtually no insurance was available to be able to cover the value of the herds.

Yield or parametric insurance was also quoted as holding promise but needed better data sets at regional, district and individual farm level to be able to be effective. Additionally a larger number of insurers offering the product was needed. To support the development of parametric insurance the agricultural industry organisations saw Government investment in the enabling infrastructure, such as more regional weather radars, as critical.

Weather analytics and data was represented as also being key to develop to improve any products being offered.

### Education and extension remains a challenge

Consultations with the agricultural industry organisations identified that the information gaps and lack of historic use of insurance products contributed to a large number of producers. These producers were felt to hold perceptions of going through the process of preparing submissions to insurers as ‘all too hard’ in the face of increasing volatility and climate change and were seeking alternative risk mitigation measures such as off farm income or self-insurance.

A 2017 GrainGrowers survey on MPCI[[21]](#footnote-22) showed 13 per cent of growers were considering taking out MPCI but 49 per cent were not. Most commonly, this was because they considered the premiums were too high. However the survey also confirms that a lack of information and understanding of available insurance policies and companies were also key contributing factors in the low uptake of MPCI.

AgForce, QFF, Cotton Australia and Growcom consistently raised the point that education of the industry as to the available risk management tools and appropriate insurance products that were available is an enduring challenge. A poignant comment being “How are farmers with little to no experience with at times complex insurance products such as parametric insurance and MPCI going to use it effectively”.

All agricultural industry organisations consulted had some form of education and extension program in effect to improve farmer knowledge and uptake of insurance as a tool. One approach nominated to aid in the education of farmers was to use industry Best Management Practices (BMP) accreditation as a way to link insurers with progressive and higher performing producers to aid in driving uptake and expand the market.

## Potential areas where Government could assist arising from consultations

In our consultations insurers identified several areas where they thought Government could assist with increasing the uptake of agricultural insurance products. Insurers suggested that changes envisaged by the government should focus on making the process of risk management more efficient, which in turn would make farming more sustainable in the long term. Areas of potential government assistance identified by the insurers include:

* **Data** – A facility to collect data with respect to insurable events would help insurers understand the risk and potentially provide products at a more economic rate. Insurers reported that currently it is uneconomic to develop models for many Queensland crops. These models are essential for pricing insurance products. Insurers indicated that grants could be used to assist with the development of models and databases, to assist in pricing the risks more accurately and therefore increasing their ability to offer the market more affordable products.

We understand from one insurer that as a result of the lack of data, that whilst they offer a product in Queensland, this is done at an unattractive price, but at a level which reflects their risk appetite.

* **Education** – As noted above, for all insurance products, a key will be to increase the trust in the product and government could help by providing education in conjunction with brokers, insurers and primary producers on the benefits of the products.

## Industry views on the use of subsidies to increase uptake

As part of stakeholder discussions, it was generally the view of insurers that the use of a long-term system of subsidies for crop insurance was not supported, such as in the USA. However, there was some acknowledgement by industry representatives of possible benefits of a short-term limited subsidy system to act a stimulus for kick-starting increased up-take and availability.

The GrainGrowers 2017 MPCI survey of 451 members, which followed up a 2015 survey of the same question set revealed that 72.9 per cent of farmers saw a role for Government in assisting in the development of the MPCI market in Australia. Tax incentives were quoted as the primary mechanism for this in a follow up question to clarify what actions Government should take.

While the agricultural industry organisations expressed a strong desire for self-reliance, it was recognised that some form of Government action to develop an effective market of informed buyers and sellers of insurance products was needed. Simply adopting a US or Canadian style subsidy approach was not considered a permanent option but one that should be used only for a short-term stimulus to the uptake as a transitionary measure. The removal of insurance duty was represented as being only ‘one lever which could be pulled’ to stimulate the uptake of insurance products as a risk management tool.

In particular, QFF noted that the Drought and Climate Adaptation Program, implemented by the Queensland Government, was an effective approach as it supported the collection and aggregation of production data sets for particular regions to aid in the development and uptake of insurance products.

Schemes such as the Farm Management Risk Rebate, which will cease on 31 May 2019, were considered by the agricultural industry organisations, because of their limited utilisation by farmers, to be ineffective. This was based on feedback from agricultural industry organisations who cited the low uptake of the rebate as an example of the ineffectiveness.

# Trends in the application and continuation of insurance duty in Australia on agricultural insurance products

## Overview

This section aims to analyse the trends across Australia with respect to the application of insurance duty on agricultural insurance products. Information was obtained through a combination of:

* Detailed desktop research, both in terms of previous research on the general efficacy of insurance duty on agricultural risk products and in relation to specific measures other Australian jurisdictions have undertaken to reform their insurance duty base (and rates);
* Specific discussions with senior officers from the Victorian and NSW Governments and relevant OSR representatives, to gain insights into the impact recent changes in insurance duty on agricultural insurance products have had in their jurisdictions; and
* Specific discussions with senior officers from the Queensland OSR to discuss any policy or practical matters that will need to be further considered should the Queensland Government proceed with abolishing Queensland insurance duty on agricultural insurance products.

We specifically note that our comments in this section 4 are observations only based on research and discussions and are not intended to reflect a view from KPMG either for or against the abolition of insurance duty on agricultural risk products or in respect of insurance duties more generally.

Over the last ten years, there have been repeated calls from interested and affected stakeholders for State and Territory Governments to specifically exempt insurance duty on agricultural insurance products:

* In its submission to the Review of the Intergovernmental Agreement on National Drought Program Reform dated 6 October 2017[[22]](#footnote-23), the National Farmers’ Federation observes that, in terms of drought assistance programs, the role of the State and Territory Governments is “transactional” in nature (e.g. periodic subsidies for freight and fodder). However, State and Territory Governments could make an immediate improvement to the affordability of single peril, multi-peril and broader farm income protection insurances by abolishing insurance duty on these products. This mirrors the QFF’s repeated calls for insurance duty to be abolished[[23]](#footnote-24);
* As part of its five-point plan to help drought-affected farmers, the ICA[[24]](#footnote-25) called on all State and Territory Governments to abolish insurance duties on agricultural insurance products as insurers believed that such a measure would help primary producers in times of drought and protect an important sector of the economy; and
* In its final October 2016 report to the NSW Government entitled “Government on Review of Multi-peril Crop Insurance Incentive Measures”[[25]](#footnote-26), the Independent Pricing and Regulatory Tribunal (IPART) assessed the efficacy of an insurance duty waiver for all multi-peril crop insurance policies. While not endorsing the abolition or waiver of insurance duty (due, in part, to the 2.5% concessional insurance duty rate that existed in NSW at the time), IPART did note observations from stakeholder that it made little sense for the NSW Government to be both seeking to alleviate an affordability issue relating to multi-peril crop insurance (via subsidies and other programs) while, at the same time, directly contributing to the problem via the imposition of insurance duty.

## General trends in respect of insurance duty

From a State and Territory Government perspective, there have been ongoing changes to insurance duty rates and bases over the last 10 years. Set out in the table below are all major tax reforms which have related to insurance duty generally since 1 July 2012 across all Australian jurisdictions.

As is observed from the table, there is no single or unified approach being taken by the State and Territory Governments, however, there does appear to be trend towards abolishing insurance duty on agricultural insurance products as and when financial circumstances allow:

Table 4‑1: General trends in respect of insurance duty

| Jurisdiction | Reform initiative | Commencement date |
| --- | --- | --- |
| NSW | 1. Abolished crop and livestock insurance duty
2. Abolished lenders mortgage insurance duty
3. Exempted business vehicle, aviation, occupational indemnity and product and public liability insurance for small businesses
4. Introduced, but deferred, amendments to the emergency services levy on insurance
 | * 1 January 2018 for items (1) – (3)
 |
| Victoria | 1. Abolished life insurance duty
2. Abolished insurance duty on insurance for multi-peril crop insurance (for all crops), as well as abolished livestock and agricultural machinery insurance
 | * 1 July 2014 for (1)
* 1 July 2017 for (2)
 |
| Queensland | 1. Increased insurance duty for class 1 and 2 insurance products to 9% from 7.5% and 5% respectively
 | * 1 August 2013
 |
| Western Australia | No major initiatives |  |
| South Australia | 1. Abolished insurance duty on multi-peril crop insurance
 | * 1 January 2018
 |
| Tasmania | 1. Increased insurance duty rates from 8% to 10%
 | * 1 October 2012
 |
| Northern Territory | No major initiatives |  |
| Australian Capital Territory | 1. Progressively abolished insurance duty on both general and life insurance
 | * 1 July 2012 (completed on 1 July 2016)
 |

In the following sections, we consider the various approaches taken by the NSW, Victorian and South Australian (SA) Governments to abolishing insurance duty on agricultural insurance products. We have also considered these approaches from a conceptual perspective in the context of how the Queensland Government may wish to consider abolishing insurance duty on agricultural insurance policies.

As at the date of this report, crop and livestock insurance policies remain subject to insurance duty at rates of up to 10 per cent in Western Australia, Tasmania and Northern Territory and we are not aware of any announced proposals for their abolition in any of these jurisdictions.

## New South Wales

The *Duties Act 1997* (NSW) provides for three categories of dutiable general insurance:

* Type A, at a rate of 9% of the premium;
* Type B, at a rate of 5% of the premium; and
* Type C, at a rate 0% of the premium since 1 January 2018 (2.5% prior to that date).

Crop insurance and livestock insurance fall within “type C” and are the only two types of insurances that fall within this type. The specific definitions of “crop insurance” and “livestock insurance” are set out below:

* ***crop insurance*** *means insurance covering:*
1. *loss due to the destruction of, or physical damage to, any pasturage or any crop of grain, fruit, vegetables or other plants, where the destruction or damage occurs while the pasturage or crop is being grown, or*
2. *loss due to the destruction of, or physical damage to, the product of any such pasturage or crop, where the destruction or damage occurs while the product of the pasturage or crop is being stored or transported, but only if the contract by which the insurance is effected also effects insurance covering the loss referred to in paragraph (a).*
* ***livestock insurance*** *means insurance covering:*
1. *loss due to the death of, or physical damage to, any animal, whether domesticated or wild, or*
2. *loss due to the death of, or physical damage to, any genetic material of any such animal, or*
3. *loss due to the theft of any such animal or genetic material.*

As we understand from discussions with NSW Treasury, the previous 2.5% rate for these insurances reflected an intent of not imposing too great an insurance duty cost on these products due to, amongst other reasons, price sensitivities and the potential for under or non-insurance by farmers.

As announced in the 2017-18 NSW Budget, and as part of a wider $330 million tax reform package, the NSW Government exempted all crop and livestock insurance policies taken out on or after 1 January 2018 from insurance duty. Crop and livestock insurance policies taken out on or before 31 December 2017 remained subject to insurance duty of 2.5%.

Based on discussions with NSW Treasury, we understand that the NSW Government has a broad policy objective of limiting its reliance on inefficient and narrowly based taxes, such as insurance duty, in favour of more economically sensible and broader based taxes such as the proposed, but currently deferred, fire and emergency services levy. In terms of insurance duty on crop and livestock insurances, we understand that there was no specific rationale for its abolition other than the fact that its abolition was consistent with the broad policy intent of removing inefficient and “nuisance” taxes and that it would assist farmers struggling with drought, without imposing a material cost to the NSW Government.

We observe that the abolition of insurance duty on crop and livestock insurances followed the release of the IPART report mentioned earlier which recommended measures to improve the affordability of multi-peril crop insurance, though there is nothing formal to suggest that the timing of the duty abolition was in response to the IPART report.

Unlike most other jurisdictions, insurance policies in NSW generally attract three layers of indirect tax in the form of GST, insurance duty and emergency services levy[[26]](#footnote-27) and this was a relevant consideration in removing insurance duty from crop and livestock insurances.

We understand that NSW Treasury did not undertake any detailed or specific modelling relating to the cost to the revenue of abolishing insurance duty on crop and livestock insurances or what the likely commercial or flow-on outcomes would be post-abolition (e.g. changes to number of policies taken-up or pricing by insurers). We also understand that NSW Treasury did not undertake any formal consultation with farmers or other key stakeholders or interest groups in seeking to abolish insurance duty on crop and livestock insurance given the expectation that they would have been in favour of any such change.

NSW Treasury noted that the expected cost to the revenue was estimated to be $12 million over the four-year forward estimates or $3 million a year[[27]](#footnote-28), based on the historic gross written premiums reported by insurers on their insurance duty returns for Type C insurance. Revenue NSW no longer collects crop and livestock insurance premium data from insurers and is, therefore, unable to confirm whether the estimated foregone revenue is consistent with actual data since 1 January 2018 or whether there has been an uptake in crop and livestock insurances or a corresponding reduction in premium pricing. Essentially, these would be matters that insurers would be best placed to confirm.

Notwithstanding the above, we understand that the $3 million per year estimate was felt to be reliable in the context of stable year-on-year reported amounts on insurance duty returns for Type C insurances and did not warrant further refinement, particularly in light of the immateriality of the quantum involved.

The legislative mechanism for introducing the exemption in NSW was a straightforward exercise from a procedural and drafting perspective – essentially, it was a matter of changing the rate applicable to Type C insurance from 2.5% to 0%. This also meant that, administratively, very few changes were required to Revenue NSW’s systems and processes. To this end, Revenue NSW has advised that its changes have been limited to providing guidance and assistance on its website and that, longer term, Revenue NSW may seek to undertake compliance audits of general insurers to ensure that the exemption is being applied correctly. From an insurer’s perspective, given that the terms “crop insurance” and “livestock insurance” are already defined, well understood and, generally, quite discrete from other forms of insurance, the expectation is that implementing the change has been simple from a system and compliance point of view. This expectation accords with anecdotal evidence provided by insurers.

As an observation, the fact that crop insurance and livestock insurance remain in the *Duties Act 1997* (NSW) as dutiable at a 0% rate rather than being removed from the Act completely raises the theoretical risk that a future government may increase the Type C rate back to 2.5% (or higher). However, based on discussions with NSW Treasury, the risk of this occurring is very low given:

* The immaterial amounts involved;
* Any increase in insurance duty runs counter to the broad policy objective of gradually phasing out insurance duty as a revenue source; and
* Revenue (and significantly more than what would be raised from insurance duty on Type C insurance) could be raised more efficiently by other means (e.g. changes to payroll tax).

## Victoria

Victoria imposes insurance duty at a rate of 10% on general insurance policies, subject to a number of specific exemptions. Prior to 1 July 2017, there was a specific exemption for crop insurance, but only in respect of insurance against damage by hail to cereal or fruit cops. That is, multi-peril crop insurance policies or policies which also covered grains, vegetables or other plants were not wholly exempted.

From 1 July 2017, the crop insurance exemption was expanded to cover:

* Multi-peril crop insurance where the damage or destruction to the crop occurs while the crop is being grown, harvested or stored;
* Agricultural machinery insurance, which was not previously exempted; and
* Livestock insurance, which was not previously exempted.

More specifically, the exemptions were re-drafted to cover the following:

* ***Crop insurance****, being insurance covering loss due to the destruction of, or physical damage to, any crop of grain, fruit, vegetable or other plant, where the destruction or damage occurs while the crop is being grown, harvested or stored*
* ***Agricultural machinery insurance****, being insurance covering the breakdown of, or physical damage to, a harvester, binder, tractor, plough or other agricultural implement or any equipment associated with any such agricultural machinery;*
* ***Livestock insurance****, being insurance covering loss due to any of the following—*
1. *the death of, or physical damage to, any animal, bee or bird, whether domesticated or wild, or any egg intended for hatching, including where the death or damage occurs while the animal, bee, bird or egg is being stored;*
2. *the death of, or physical damage to, any genetic material of any livestock referred to in paragraph (i), including where the death or damage occurs while the genetic material is being stored;*
3. *the theft of any livestock referred to in paragraph (i) or any genetic material referred to in paragraph (ii);*

These exemptions were announced in the 2017-18 Victorian Budget for the purposes of supporting farmers and primary producers who insured their agricultural products against damage from flood, fire and other accidents[[28]](#footnote-29). Based on our discussions with the Victorian State Revenue Office, another relevant factor for the broadening of the exemption was the definitional and apportionment issues associated with determining how much of each insurance policy related to exempt peril cover, such as hail, and for exempt crop types (i.e. fruits but not cereals). We understand from discussions with the Victorian State Revenue Office that the narrowness of the earlier exemption led to feedback from farmers and farming groups (rather than insurers) that neighbouring farms attracted different and perceived unfair insurance duty treatments.

For similar reasons to NSW, there were very limited administrative changes necessary for the Victorian State Revenue Office as the compliance burden rests with the general insurers and the Victorian State Revenue Office does not collect any premium data as part of the monthly insurance duty return process. Instead, the Victorian State Revenue Office has advised that the transition process will likely only involve undertaking compliance audits, particularly relating to apportionment, as considered necessary on a risk assessed basis.

One specific issue that has arisen in Victoria since the broadening of the exemption is in relation to whether horses used for racing purposes and animals such as horses and dogs used for farming purposes (e.g. cattle dogs) are “livestock” and, therefore, treated as exempt. We understand that the Victorian State Revenue Office’s position is that animals used for racing and farming purposes are not livestock and, therefore, insurance in respect these items are treated as dutiable. We are advised that both farming and racing groups are lobbying to have this interpretation broadened, noting our understanding that the position in NSW is that such animals are treated as livestock and, therefore, exempt.

Outside of the above observations, the experience in Victoria mirrors the experience in NSW.

## South Australia

SA imposes insurance duty on general insurance policies at a rate of 11%, subject to a number of exemptions, but these exemptions did not previously include any agricultural insurance products.

With effect from 1 January 2018, the SA Government exempted insurance duty from premiums received or charged in respect of multi-peril crop insurance. Unlike NSW and Victoria, SA defined the exemption by specific reference to “multi-peril crop insurance”, provided that the insurance policy covered loss caused by drought. More specifically, “multi-peril crop insurance” which is exempt from insurance duty is defined as:

Insurance covering the total or partial loss of crops resulting from drought (whether or not the policy under which the insurance is provided also covers loss resulting from other perils).

Similar to other jurisdictions, the compliance burden of insurance duty falls on the insurers themselves and, as such, the changes have had limited impact on RevenueSA.

We understand that the SA Government’s purpose in exempting insurance duty on these policies was to assist South Australian farmers who took out multi-peril crop insurance manage their risks and give them greater confidence to plant more crops and target higher yields, with the reassurance that they can be financially protected for their input costs in the event of a peril. It is estimated that this exemption will provide a benefit to around 100 insurance policies each year[[29]](#footnote-30). Despite our efforts, we have not been able to obtain a reliable estimate of the foregone revenue though, given the relative size of their agricultural industries and the number of policies expected to be involved, the revenue foregone would be less than the $3 million per year estimated for each of NSW and Victoria.

The exemption was implemented by an amending Act[[30]](#footnote-31), which was only assented to on 22 November 2018, such that the exemption had backdated effect. This, in turn, has required the SA Government to provide farmers with a refund of overpaid insurance duty where the farmer had taken out an affected policy after 1 January 2018 and prior to the date of assent. Given this refund process remains ongoing and the exemption remains very new, RevenueSA has extremely limited data in terms of the impact the exemption has had on insurers, insurance policies and the market more generally.

## Issues to consider for the Queensland Government

As set out above, there is no consistent approach to exemption across the jurisdictions that have now exempted agricultural insurance products from duty. In light of this inconsistency, there are a number of definitional and system / enforcement issues which the Queensland Government will need to consider and resolve should it decide to proceed with abolishing insurance duty on agricultural insurance products.

To better understand how some of these of these issues may be dealt in the context of the current Queensland insurance duty framework, we undertook discussions with representatives of the Queensland OSR and, where relevant, their feedback is noted below:

* There will need to be further thought given to the scope of any such exemption, particularly the fact that it would require new definitions and concepts not currently contained in the *Duties Act 2001* (Qld). For instance, the Queensland Government would need to consider whether the exemption would extend to:
* Agricultural machinery insurance (as is the case in Victoria but nowhere else);
* Any multi-peril crop insurance policy that does not include the total or partial loss caused by drought (which is specifically excluded in SA but nowhere else);
* Theft of crops (not covered anywhere); or
* Racing and farm animals (covered in NSW but nowhere else).
* The Queensland OSR’s view is that, ultimately, the scope and breadth of any extension are matters of policy and for the government to resolve. To this end, the Queensland OSR has not devoted any resources at this stage to considering what format an exemption could take and, if one were to be implemented, what revenue would be a foregone as a result.
* The Queensland OSR confirms that it was not consulted by the NSW, Victorian or SA governments in terms of their exemptions and, accordingly, expresses no opinion as to which jurisdiction has the preferred exemption model both from an implementation and ongoing compliance point of view.
* Based on our discussions with both the Queensland OSR and insurers, there is an attraction from a systems and compliance perspective for Queensland to make any exemption simple in both its form and application (i.e. it should be easy for insurers to identify qualifying policies without needing assistance from the OSR or external advisors). While, ideally, any Queensland exemption should be consistent with an exemption that exists in at least one other jurisdiction, this should not come at the expense of Queensland taking advantage of the learned experiences of the other jurisdictions. Our research indicates that the exemption was very simple to apply in NSW due mainly to their pre-existing and market-understood definitions of “crop insurance” and “livestock insurance” but, on a similar note, feedback suggests that was not difficult to implement the changes in Victoria and SA either from a revenue authority or insurer perspective even with new or expanded definitions.
* The Queensland OSR indicates that an exemption for agricultural insurance products will not be any more difficult to implement than other exemptions granted in recent times. In fact, noting the level of scrutiny to which they are subject to, insurers are seen as sophisticated and generally low-risk taxpayers who would be expected to comply with any exemption. Where possible, the Queensland OSR ideally requests a lead-time of 12-18 months from initial consultation to the exemption being implemented so it can work with the Queensland Government and insurers to facilitate a smooth transition.
* Though the practical outcome may be the same, a decision would need to be made as to whether the Queensland Government exempts agricultural insurance policies completely, such as the approach in Victoria and SA, or whether it takes an approach similar to that of NSW of making the policies dutiable at a rate of 0%. Based on our discussions, the Queensland OSR would prefer to not adjust the classes or introduce a new class and suggests a simpler approach would be to have a new exemption for “agricultural insurance” (however defined).
* While our research and modelling suggests that the estimated foregone revenue of an insurance duty exemption would be in the range of $3-6 million per year, this is based on limited data. Further, the experience in other jurisdictions is that, due to a lack of data collected, there is unlikely to be any simple mechanism by which any actual revenue foregone can be estimated and reported to government post-abolition. The Queensland OSR confirms that it does not collect sufficient data to estimate how much insurance duty is collected on agricultural insurance products or how much revenue would be foregone as a result of an exemption.
* Unlike in Queensland, NSW had a third layer of indirect taxation on general insurance policies (being the emergency services levy) and the abolition of insurance duty on crop and livestock insurances went someway to alleviating what was perceived as being the triple-taxation of a very narrow and easily avoidable dutiable product. That being said, our discussions with NSW Treasury indicate that there were very limited calls for insurance duty on crop and livestock insurances to be abolished due to its existing low rate and, instead, there were more calls for the emergency services levy to be abolished or reduced (due it being a greater impost than insurance duty).
* As with any exemption, there is always a risk that the abolition of duty on one type of product could “open the floodgates” to calls for other products to be exempted on equity and neutrality grounds. However, other than the issue relating to racing and farming animals in Victoria, our research indicates that this has not occurred in other jurisdictions and nor, it seems, is it expected to occur in any of the jurisdictions which have exempted insurance duty on agricultural insurances. The Queensland OSR suggests that the Queensland Government expresses a very clear policy rationale for the exemption as this will assist in any interpretational issues which may arise and in managing the “floodgates” argument.
* It is argued that any insurance duty exemption for agricultural insurance products would be consistent with broader Queensland Government policy intent of removing some of the regulatory burdens and costs imposed on farmers. For instance, in 2016, Queensland broadened the transfer duty concession for intergenerational transfers of farming businesses at a cost of $35 million per year[[31]](#footnote-32) (i.e. potentially more than ten times the cost to revenue of any insurance duty exemption for agricultural insurance). Similar transfer duty exemptions also exist in other jurisdictions such as NSW and SA. In addition, the Queensland Government also operates:
* Farm Management Grants (due to cease 30 June 2019), providing rebates of up to 50% to a maximum of $2,500 per year, to assist eligible Queensland primary producers or their relatives offset the costs of professional advice associated with succession planning[[32]](#footnote-33); and
* The Drought and Climate Adaptation Program, which aims to help producers better manage drought and climate impacts, including through research on risk management products such as the use of insurance or index products.
* NSW Treasury advised that, while the general preference is to provide tax relief in the form of subsidies rather than exemptions, given the immaterial amounts involved, it was considered that an exemption for all farmers was an appropriate and a cost-effective method of achieving the same aim of supporting farmers as a subsidy would achieve. The Queensland OSR did not express a view as to whether subsidies are to be generally preferred to tax relief but did note that a rebate system – whereby farmers would be reimbursed a cash amount for the embedded insurance duty on their policies – would likely be an inefficient means of providing relief from insurance duty.
* The compliance burden for implementing any abolition of insurance duty generally rests with general insurers. The Queensland OSR would be responsible for enforcement and audit activities to verify that the exemption is being correctly applied and issues such as apportionment for policies that cover risks outside of the exemption (potentially, farm pack insurance policies) are being dealt with correctly. Based on our discussions with the Queensland OSR, the level of compliance action and system updates that would be warranted are dependent on the scope of any exemption (see our comments above) and cannot be determined with any certainty at this early stage. That being said, there is unlikely to be any major updates requires to the Queensland OSR’s forms and website and the experience in other jurisdictions is that any necessary system or process changes within the revenue authority have been fairly minimal.

# Economics of insurance duty

Taxes are designed to raise revenues to fund government spending (e.g., on infrastructure, public services, welfare etc.) and/or to specifically influence behaviour (e.g., discourage cigarette smoking). In a modern economy stamp duties have no special role other than to raise revenue. Like all taxes stamp duties will influence behaviour and distort the allocation of resources. However, unlike taxes that specifically target behaviour, such as tobacco taxes, the distortionary impact of stamp duties on resource allocation is negative for the economy.

An efficient tax system will raise a given amount of revenue in a manner that minimises unintended distortions in behaviour and, consequently, on the allocation of resources. Some taxes are more distortionary than others, meaning that they are relatively inefficient vehicles for raising revenue. Economist quantify the efficiency of a particular tax by measuring the loss of economic welfare that it induces per dollar of revenue that it raises. Specifically, the *marginal excess burden* (MEB) of a tax is the loss of economic welfare due to a small increase in that tax, expressed in cents per dollar of additional revenue raised. Similarly, the *average excess burden* (AEB) of a tax is the loss of economic welfare due to the introduction of the entire tax, again expressed as cents per dollar of additional revenue raised. The MEB is typically used to consider the implications of a small increase/decrease in a tax while the AEB metric is useful for considering the implications of abolishing a tax.

In considering a change to the tax system, such as abolishing stamp duties, it is appropriate to assume that the revenues required remain unchanged. This means that one tax must be replaced with another. To justify the administrative and implementation costs associated with a change in the tax mix the new tax should be significantly more efficient than the one it is replacing.[[33]](#footnote-34) That is, justifying the replacement of a tax with another that is marginally more efficient is likely to be difficult on a cost-benefit basis when all the transition costs are taken into account.

Stamp duties are one of the most inefficient taxes levied by government. KPMG (2011a, 2011b) estimate the MEB and AEB of insurance duties on insurance to be 31 and 29 cents per dollar of revenue raised respectively. KPMG (2011b) estimates that there are significant economic benefits from replacing insurance duties with payroll taxes raised by lowering the payroll tax threshold (as opposed to the rate of payroll tax). From the examination of the MEBs reported for other state taxes in these studies it is evident that replacing insurance duties with land taxes also has the potential to yield significant economic benefits.

The estimates of the economic costs of insurance duties in the KPMG studies do not distinguish between different types of insurance products. To our knowledge estimates of the economic costs of taxes on insurance products specifically aimed at managing agricultural production risk are not available. It is reasonable to assume that the MEB and AEB of insurance duties on agricultural insurance products is similar in magnitude to that estimated by KPMG for insurance generally.

Figure 5.1 provides a stylised example of how a tax, such as insurance duty, can distort a market. In the absence of a tax the equilibration of demand and supply in that market occurs at price $P\_{0}$ and quantity $X\_{0}$. The imposition of a tax at the rate $t\_{1}$ results in a contraction of the quantity transacted to $X\_{1}$, an increase in the price paid by consumers to $P\_{t}$ and a decrease in the price received by suppliers to $P\_{s}$. The tax revenue collected by the government can be deduced as the difference between the price that consumers pay for the product and the price received by suppliers multiplied by the rate of tax. In figure 5.1 this is represented by the rectangle *DGIB*. The welfare loss for the economy is represented by the triangles shaded blue and red. The blue triangle, *GHM*, represents the welfare loss attributed to the consumer and the red triangle, *MHI*, represents the welfare loss attributed to producers.

Figure 5.1: Stylised Model of a Tax Distortion



The burden or incidence of the tax measure how much of the tax revenue collected is paid by the consumer and how much is paid by the producer. The incidence of the tax on consumers is measured as the difference between the pre-tax and post-tax price paid by consumers multiplied by the rate of tax. This is represented by the rectangle *DGMC* and the remainder of the tax revenue collected (given by rectangle *CMIB*) represents the incidence of the tax on the producer. In the hypothetical market depicted in figure 5.1 the burden of the tax is fairly evenly distributed across consumers and producers. This is not always the case and depends on the relative steepness of the demand and supply curves which reflect the sensitivities of consumers and producers to price (i.e., the price elasticity of demand and supply). We will return to this issue later when discussing the potential impact that removing insurance duties might have on the uptake of agricultural insurance products.

As discussed above the AEB of a tax is the loss of economic welfare due to the introduction of the entire tax expressed as a proportion of total revenue raised by that tax. In figure 5.1 we can estimate the AEB of the hypothetical tax by dividing the welfare loss for consumers and producers (represented by the blue and red triangles) by the tax revenue raised (represented by the rectangle-shaded grey). That is:

$$Average Excess Burden=\frac{GHI}{DGIB}$$

To illustrate the MEB of a tax we need to augment the model in figure 5.1 to show the impact of increase the rate of tax by a small amount from $t\_{1}$ to $t\_{2}$. This is done in figure 5.2. The MEB of a tax is the incremental welfare loss emanating from a small (marginal) increase in that tax divided by the consequent change in government revenue. In figure 5.2 the incremental welfare losses emanating from an increase in the tax rate from $t\_{1}$ to $t\_{2}$ are identified by the areas shaded dark blue and dark red (i.e., the area *FGIJ*). The incremental impact of the tax increase on government revenues is given by the difference between the areas *EFJA* and *DGIB*. The MEB can be calculated as follows:

$$Marginal Excess Burden=\frac{FGIJ}{EFJA-DGIB}$$

Figure 5.2: Stylised Model of a Tax Distortion – Impact of a Rate Increase



The model represented in figures 5.1 and 5.2 is highly stylised. For example, it abstracts from potentially important impacts arising from the interaction of the market depicted with the rest of the economy. Formally, it is a partial equilibrium model rather than a more complex general equilibrium model, which is designed to capture the impacts of a change in a tax rate across the whole economy, not just the market(s) directly impacted. A general equilibrium model would aim to capture the supply-chain impacts of a tax increase. For example, a tax on insurance products reduces demand and increases the price of insurance. Businesses that use insurance now face higher costs and their competitiveness may be eroded leading to a loss of sales.

The stylised model is comparative static and lacks dynamics. Insofar as demand and supply conditions can vary over time a single snapshot of a market/economy may provide an incomplete picture of the potential impacts of a tax change. Permanent changes in tax policy should be assessed in a long run context, abstracting from transitory cyclical factors. Analysis of the cost of adjusting to a new tax policy must inevitably consider short-term cyclical factors. This may help policy-makers develop an implementation plan that includes mechanisms to ameliorate adjustment costs such as phasing in policy changes, including grandfathering provisions and considering compensation arrangements.

The final limitation of the stylised model that we consider is that it based on the assumption of many buyers and sellers operating in a well-functioning competitive market. This limitation is relevant with regards to insurance products generally, where adverse selection and moral hazard must be considered, and with regards to insurance products targeting production risk in the agricultural sector particularly, where the market is under-developed or dependent on government support for existence. MPCI falls in that category. As explained in section 3 the MPCI market is almost non-existent in Australia and where it does exist in other countries it is heavily dependent on government support.

Despite its limitations the stylised model provides us with a good framework for considering the removal of insurance duties on agricultural insurance products. In the following sub-sections we analyse the implications of abolishing insurance duties at a conceptual level. As will be explained, the impact of abolishing insurance duties depends very much on the supply and demand conditions in the market (loosely speaking the slope and positions of the demand and supply curves). We summarise some of the factors that may determine the demand and supply conditions in the farm insurance market and then focus on two specific issues of particular relevance: (i) the potential impact of government assistance to the farm sector on their demand for yield insurance; and (ii) the potential impact of taxing farm yield insurance but not other yield risk management products/services.

### What is the impact of removing insurance duties on farm yield insurance products?

A well-functioning market for insurance products will be characterised by many price-taking buyers and sellers and by an absence of adverse selection and moral hazard issues. Under these conditions we can use the stylised model to analyse the impact of abolishing a tax such as insurance duty. We consider two scenarios that differ only with regard to the sensitivity of demand for insurance to price.

Figure 5.3 depicts the case where demand is relatively inelastic (demand curve is relatively steep). With insurance duty levied at the rate $t$ the supply curve is represented by the red line and the equilibrium price and quantity of insurance is given by $P\_{t}$ and $X\_{t}$. We note that if the full amount of the insurance duty had been passed on to the buyer then the buyer would have paid $P\_{N}×\left[1+t\right]$. Under the supply and demand conditions in figure 5.3 the incidence of the tax falls only partially on the buyer. Other things constant, the abolition of insurance duty results in vertical shift down of the supply curve. In proportional terms the vertical distance between the supply curves is equal to the rate of insurance duty. In the new no-tax equilibrium the price and quantity of insurance is given by $P\_{N}$ and $X\_{N}$. Thus, the quantity of insurance transacted goes up from $X\_{t}$ to $X\_{N}$, the price paid by buyers falls from $P\_{t}$ to $P\_{N}$ and the price received by sellers goes up from $P\_{s}$ to $P\_{N}$. Because the burden of the tax did not fall fully on the buyer the fall in the price paid is less in proportional terms than the rate of the insurance duty. In this scenario the government loses insurance duty revenue equivalent to $X\_{t}×\left[P\_{t}-P\_{s}\right]$.

In the case depicted in figure 5.3 the tax burden on the buyer was greater than that on the seller. This meant that, in proportional terms, the benefit to the buyer of abolishing the tax is greater than the benefit to the seller. Figure 5.4 depicts a scenario where the demand for insurance is more sensitive to price than in the scenario depicted in figure 5.3. This is reflected by the fact that the demand curve in figure 5.4 is flatter than that in figure 5.3. Other things equal, the burden of the insurance duty falls more heavily on the seller the more elastic is the demand curve. Insurance duty levied at the rate $t$ results in a smaller proportional increase in the price paid by the buyer in the elastic demand scenario compared to the inelastic demand scenario depicted in figure 5.4. Conversely, the fall in the price received by the seller is larger in the elastic demand scenario. In the elastic demand scenario the quantity of insurance transacted with insurance duty in place is less than in the analogous inelastic demand scenario. This implies that the revenues collected by the government will be less in the elastic demand scenario. Abolishing insurance duties in the elastic demand scenario results in a proportionately large increase in the quantity of insurance transacted.

Figure 5.3: Abolishing Insurance duty in the Stylised Model – Inelastic Demand



Figure 5.4: Abolishing Insurance duty in the Stylised Model – Elastic Demand



Above we have focussed on highlighting how abolishing insurance duties can have different price and quantity responses depending on demand conditions. A key message is that abolishing insurance duty levied at the rate $t$ per cent should not, except in a special case, be expected to translate into a $t$ per cent reduction in the price of insurance. In the special case where this is expected to occur demand is completely inelastic and there will be no quantity response.

Similar analysis to that presented above can be done for the supply side of the market to understand how differences in the elasticity of supply can impact the price and quantity response when insurance duties are abolished.

With this background it is possible to make some general observations regarding the market for farm yield insurance in Queensland.

* The market depicted in figures 5.3 and 5.4 may be a reasonable characterisation of the market for named peril insurance but not for multi-peril insurance.
* For named peril insurance a reasonable hypothesis is that the inelastic demand scenario is more representative than the elastic demand scenario. Although we do not have sufficient data to test this hypothesis formally, we can at least observe that the uptake rate is generally high and that in good seasons the uptake rate is very high (see section 3.1.1).
* For multi-peril insurance the market characteristics captured in figures 5.3 and 5.4 are not representative of the Queensland market (or the Australian market more generally). Firstly, we know that there are not many buyers and sellers and that the quantity of insurance transacted is very low. We also understand that adverse selection and moral hazard are likely to be important characteristics of this market. Insurance markets where adverse selection is an issue are likely to be characterised by downward sloping supply curves and there may be no quantity where demand and supply intersect.[[34]](#footnote-35) Moral hazard represents an additional cost of supplying insurance and this would need to be reflected in the positioning of the supply curve.

As explained earlier the stylised model that we have used for this conceptual analysis is partial equilibrium in nature where “other factors” are assumed to remain constant. A selection of these is discussed below.

### What are the “other factors” that are assumed to be constant in the stylised model?

There are many “other factor” assumed constant in the stylised model. Here we focus on a few key factors particularly relevant to farm yield insurance.

The following factors can influence the position and slope of the demand curve:

* ***Tastes and preferences*** – farmers may prefer a particular risk management product or activity, which may reflect the fact that they are familiar with a particular approach.
* ***Farmer’s disposable income*** – a tax will reduce the farmer’s disposable income resulting in a decrease in demand for all goods and services, including insurance. Importantly, a farmer’s income may vary significantly over time depending on farm yields, which may be impacted by risks such as weather conditions. For example, a farmer that has confronted a long period of drought may have less disposable income resulting in decrease in demand for goods and services, including farm inputs and insurance.
* ***Availability and price of substitute products*** – the demand for a particular farm yield insurance product, such as multi-peril insurance, will depend on the availability and cost of substitute products and services.
* ***Price of complementary goods and services*** – the demand for an insurance product may depend on the cost of goods and services that are complementary. For example, farm insurance is a complement to other farm inputs, such as seed and fertiliser. If the price of these inputs is high then demand for them will be low and this may flow through to lower demand for farm insurance.
* ***Expectations regarding climate conditions*** – if farmers believe climate conditions will be favourable for production demand for insurance may be higher to protect their investment in inputs and the anticipated production. If conditions are expected to be less favourable farmers may have little need for insurance because their investment in inputs may be small (or zero) and the expected production outcome may be small.

The position and slope of the supply curve can be influenced by:

* **Production costs** – this includes cost of reinsurance, cost of loss adjustment and administration of the service as well as costs associated with regulation and taxes/subsidies.
* **Technology** – in the context of insurance this may include the method of collecting and processing relevant data, the method of monitoring and assessing claims and financial engineering to structure products.
* **Number of sellers** – the number of insurers operating in the relevant market segments will impact the supply of insurance products.

### What is the impact of drought/flood relief/assistance on the demand for insurance?

Government assistance provided to farmers adversely impacted by an event such as drought or flood may distort the market for farm yield insurance.

On the demand side of the market, if historical experience leads farmers to expect some form of assistance from the government following particularly events such as drought and flood they may consider this assistance as a part of their overall risk management strategy. Insofar as this assistance is viewed as an imperfect but low-cost substitute for insurance (or other types of risk management products or practices) then the demand for insurance by farmers will be lower. In the context of the stylised model the demand curve for farm yield insurance will be lower and more price responsive (i.e., flatter). The extent to which the demand curve is lower and flatter will depend on how certain the farmer is that the assistance will be forthcoming and the degree to which the assistance is seen as a substitute (e.g., size and nature of assistance).

On the supply side, insurers may be inhibited from investing specialised resources to develop products for Queensland farmers because the size of the market may be constrained by the presence of a low-cost substitute provided by the government. In addition, it may be the case that the possibility of government assistance changes the behaviour of farmers so that they engage in more risky activities, making it difficult to design and underwrite cost-effective insurance products.

### What is the impact of taxing some agricultural insurance products and not others?

Other things equal, applying different rates of tax on different products results in under-consumption of the product that is more heavily taxed and over-consumption of products that are less heavily taxed. The degree to which differential tax rates bias the consumption decision depends on the degree of substitutability between the products. In the context of farm risk management, having insurance duty on insurance products but not on other components of a risk management strategy
(e.g., index-based risk management products, on-farm practices etc.) may result a sub-optimal risk management strategies if farmers bias the mix of products and activities in their overall risk management strategy in favour of the lower-taxed elements.

# Policy options

In this section we consider three categories of policy options. Maintaining the status quo (or business as usual) is the first option. We then consider options relating to insurance duty on farm yield insurance products. The third category includes options other than insurance duty relief that the government may consider to assist the farm sector deal with catastrophic weather events and natural disasters.

Before considering the three categories of policy options, it is necessary to review the rationale for government assistance to the farm sector. Market failure that results in a misallocation of resources and loss of welfare for society can constitute a prima facie case for government intervention. All businesses must deal with risk and in well-functioning markets business owners will earn returns that are sufficient to maintain a quantity of resources (e.g., land, labour and capital) in the sector that is optimal from a societal perspective. This “normal” rate of return ensures that businesses are adequately rewarded for the risk that they are taking. However, the market will not reward businesses for all risks, including risks that can be efficiently reduced by:

* Adopting better technology and/or management practices;
* Diversification strategies; or
* Transferring them to other businesses or individuals that can better manage particular risks
(e.g., insurance).

All businesses, including farms, must develop efficient risk management strategies to survive. For the farm sector, catastrophic weather events and natural disasters are particular risks that are very difficult to manage efficiently. Moreover, it appears that the market is not prepared to reward farmers adequately for bearing this particular risk. As explained above federal and state governments have acknowledged the special nature of weather and natural disaster risks faced by farmers and have developed assistance packages for farmers that have been adversely impacted by such risks. The general public has also acknowledged the special circumstances faced by the farm sector, which is seen as crucial to securing an affordable food supply for the nation. This is evidenced by the regular establishment of charities and other vehicles to collect and distribute donations to farmers stricken by droughts and floods.

An inability to manage risks efficiently will result in sub-optimal investment in the farm sector and higher prices for agricultural commodities and those goods and services that are dependent on inputs of agricultural commodities. Under-investment in the farm sector may unnecessarily reduce the security of the nation’s food supply and increase the reliance on foreign food supply chains.

In considering the role of government in agricultural risk management the OECD (2011) identifies three layers of risk in agriculture. The potential role of government is different for each layer of risk.

#### Normal risk

Normal risks are those that can be managed directly by farmers as part of their normal business strategy. These types of risks relate to variations in weather conditions, prices and yield that occur regularly and can be managed efficiently by farmers using a combination of: market products, such as insurance and futures; on-farm actions, such as adopting best practice techniques and diversifying crops; and off-farm actions such as diversifying income sources.

The role of government for this category of risks includes encouraging farmers to develop their own risk management strategies. Training programs can assist farmers in understanding the availability of risk management tools and how they can be used to implement a comprehensive risk management strategy tailored to their specific circumstances. Government can provide such training programs directly or support farmers through tax policy or grants to seek such training.

The OECD also sees a role for government in shaping tax policy to recognise the normal variation in farm income. This includes allowing farmers to average their income over time for the purpose of assessing their tax liability and providing tax incentives for farmers to save so they can smooth their income and better manage periods of loss or not income.

#### Marketable risk

The OECD classifies marketable risks as those that can be managed through market instruments such as insurance and futures markets or through cooperative arrangements with other farmers. The risks in this category have a medium probability of occurring and when they do occur the damage is in the medium range (significant but not catastrophic). The role of government for this category of risks includes providing a legal structure that supports the development and adoption of these instruments and, similar to the normal risk category, facilitating training so that farmers and their representatives are better equipped to utilise these instruments in their risk management strategy.

#### Catastrophic risk

The OECD (2011) defines catastrophic risks as “large but rare events that cause very significant damage over a wide area and to many producers, to the extent that neither individual producers nor available market instruments are able to cope”. A severe and widespread drought is an example of such a risk. In such circumstances governments may have an important role to play in helping manage risk. The OECD warns that governments need to be careful in balancing a rigid approach based on rules determined in advance of an event and a flexible approach where decisions are made after an event. Government also need to avoid creating moral hazard. This might occur, for example, if farmers form an expectation that in all circumstance the government will step in and this encourages the development/expansion of farms in high-risk areas or the implementation of sub-optimal risk management strategies.

The OECD recognises that the boundaries between the three risk categories described above are not clear-cut and may vary across countries depending on risk profiles and prevailing institutional and policy settings. The OECD’s studies of Australia, Canada, the Netherlands, New Zealand and Spain found that government policies regarding farm risk management rarely made clear distinctions between risk types and often related to risks in the normal and marketable categories.

The OECD (2011) provides a useful framework for considering government policy aimed at helping manage risks in the farm sector, which they summarise as follows:

“In general, policy reforms on risk management should focus on making the available systems more efficient rather than creating new institutions. They should build on existing information and institutional arrangements, and enforcing access to information. The risk management system has to be understood as a long term investment in a clear arrangement that defines the responsibilities of farmers, government and markets, and allows the evolution and development of appropriate solutions in different risk layers”.

The essence of the framework is that the government’s role should be guided by the identification and redressing of market failures, which differ in nature and consequence across the risk layers.

ABARES (2012) considered potential roles for government in the context of analysing how insurance and related products could be used for managing farm risk in Australia. ABARES saw agricultural insurance as a component of a multi-faceted farm risk management strategy that was best suited to dealing with risks associated with rare and extreme events. Other risk management devices were likely to be more cost-effective at dealing with more frequent and less damaging events.

Table 6.1, which is replicated from the ABARES study, summarises the potential role that government can play in assisting the market for insurance and related products to better serve the needs of the farm sector and the likely effectiveness of various actions.

Table 6-1: Potential roles that Government could play in assisting the insurance market

|  |  |  |
| --- | --- | --- |
| Product | Potential role for government | Effectiveness |
| **Named peril insurance** | * Not required—already commercially available
 | * Not applicable
 |
| **Multi-peril crop insurance** | * Subsidise premiums
* Make compulsory
* Provide farm level data
* Provide reinsurance
 | * Expensive to government, distorts market incentives
* Distorts market incentives (benefits riskier farmers)
* Expensive, demand may still be insufficient
* Does not solve the market failure
 |
| **Mutual fund** | * Same as MPCI
 | * Same as MPCI
 |
| **Weather derivative** | * Increase number of weather stations
 | * May reduce basis risk and improve farmer demand
 |
| **Yield index** | * Increase number of weather stations
* Invest in model development
* Re-continue shire-level data
 | * May reduce basis risk and improve farmer demand
* Will overcome a major cost, but demand remains uncertain
* May improve viability, but will not overcome basis risk
 |
| **Area yield** | * Re-continue shire-level data
 | * Farmer demand may still be low because of basis risk
 |

*Source: ABARES (2012)*

The ABARES study did not specifically consider the issue of abolishing insurance duty on farm insurance products. This may reflect the study’s focus, which was on national policy options, and the fact that state governments are responsible for insurance duty policy. Our analysis below is specifically focused on policy options for the Queensland government. In the context of discussing the status quo option for the Queensland government we do summarise relevant federal policies. This is important background information because Queensland government policy should be considered in a broader context, in particular how it co-exists with policy implemented by other state governments and by the federal government.

## Status quo

Table 6-2 below sets out the federal and state government policy initiatives relating to farm risk that applies to Queensland farmers. The status quo option for the Queensland state government is to maintain existing policy settings and allow the market to evolve over time with the development of new risk management products/techniques and reductions in cost of existing products/techniques facilitated by advances in technology and availability of information/data.

The status quo approach is underpinned by the assumption that the private market will be able to find a solution that is socially optimal without further government intervention. This includes insurance and non-insurance risk management products/practices. Moreover, there is an underlying assumption that existing policy is close to optimal in the sense that the overall costs and benefits of changing the policy are balanced. This means, for example, that for a given budget commitment the programs targeting farm risk are achieving their intended purpose and it is not possible to re-allocate the budget to achieve a better outcome.

At a practical level, maintaining the status quo has the advantage of not disturbing the economic environment in which stakeholders are operating. For example, a change in government policy in relation to the farm sector, such as abolishing insurance duty on farm yield insurance, may incentivise other industries to pressure the government for similar concessions. Similarly, providing additional assistance to the farm sector may put pressure on the budget, which can impact taxpayers on the revenue side and other stakeholders on the expenditure side. We emphasise that this is not a reason for maintaining the status quo per se. Any policy change needs to be considered in an economy-wide context and carefully justified with the expected benefits of the change clearly exceeding the costs.

Although it is beyond the scope of this study to conduct a comprehensive review of existing farm risk policy and to conduct a detailed analysis of all alternative policy options (federal, state and local) we can make some general observations.

* Maintaining the status quo is unlikely to have major implications for the Queensland market for named peril insurance. Queensland farmers may be competitively disadvantaged relative to their counterparts in other states, where insurance duties on farm yield insurance are lower, but this has been the case for some time and its impact on farm viability is likely to remain modest. Insurers may focus their efforts in developing and promoting farm insurance products in other states where insurance duties are lower.
* The MPCI market is unlikely to develop significantly because of important market failures associated with adverse selection and moral hazard. MPCI has not developed independently of government assistance in other countries (see, for example, Hertzler (2005) and the World Bank report by Mahul and Stutley (2010)). This may mean that management of key yield risks such as drought and floods will remain difficult for the farm sector and the pressure for government assistance will continue, especially if climate risks increase as expected. Analogous to the market for named peril insurance, Queensland farmers may be competitively disadvantaged and insurers discouraged from servicing the Queensland market because of the higher insurance duty.
* The private market for managing catastrophic events may continue to evolve, but this is likely to be a slow process and may not significantly reduce the farm sector’s reliance on government assistance.
* Federal and state government assistance policies that are not targeting market failures in the farm yield insurance market may reduce the incentive for farmers and insurers to develop that market.

Table 6.2 summarises the main forms of assistance provided by the Queensland and federal government to farmers in relation to adverse weather events and other natural disasters. The possibility that these policies impede the development of private farm yield insurance markets has been canvassed in the literature (e.g., Productivity Commission (2009), IPART (2016)). In a submission to the Productivity Commission enquiry into government drought support the Queensland government noted that:

“As long as there is a broad ranging drought assistance program it will offset to some extent the development of commercial risk management products such as insurance. While certainly not the only reason, the fact that the government is prepared to take on an element of the climate risk by providing drought assistance measures may crowd out this potential market”.[[35]](#footnote-36)

Table 6-2 Summary of the main forms of assistance provided by the Queensland and Federal Government

|  | Program | Administration | Type of measure | Function |
| --- | --- | --- | --- | --- |
| **Queensland Government Risk Management measures** | Farm Management Grants | Queensland Rural and Industry Development Authority (QLD) | Rebate for professional advice associated with succession planning | Grants are available to eligible Queensland primary producers (or their relatives) to offset the costs of professional advice associated with succession planning. Rebates of up to 50% of the amount paid for professional advice, to a maximum of $2,500 for each financial year of the scheme, are available. The Farm Management Grants has a sub-component program involving crop insurance Research grants. These grants provide funding for projects that improve data collection for the development of insurance products.  |
| **Queensland Government Risk Management measures** | Drought and Climate Adaptation Program QLD | Department of Agriculture and Fisheries, Department of Environment and University of Southern Queensland | Information  | An initiative to improve drought preparedness and resilience for Queensland producers. The research provided in this Program will help farmers manage financial risks associated with decision-making around droughts and climate variability through improved forecast products, tools and extension activities.  |
| **Queensland Government Disaster Relief measures** | Drought Relief Assistance Scheme (DRAS) QLD | Department of Agriculture and Fisheries (QLD) | 3 assistance measures while an area or property is drought declared, and 2 assistance measures after the drought declaration is revoked | Up to $20,000 per property per financial year is available. Higher amounts of up to $50,000 are potentially available if the producer undertakes a Drought Management Plan.For drought affected properties, the assistance includes: freight subsidies to transport fodder, freight subsidies to transport water, and the Emergency Water Infrastructure Rebate (EWIR).The Queensland Government provides increased funding of up to $20 million in 2018-19 for the continuation of the Drought Relief Assistance Scheme.  |
| **Queensland Government Disaster Relief measures** | Other drought relief arrangements  | Department of Natural Resources, Mines and Energy | Land rent rebates and water licence waivers | Holders of rural leases are eligible for a rebate of 15% of their annual rent where that annual rent is more than $261 (excl. GST). The rebate is available for producers who hold leases in drought-declared areas and those who have an individually droughted property (IDP). Annual water licence fees are waived for Queensland producers who properties are in drought-declared areas or have an IDP. The Queensland Government provides up to $4.2 million in 2018-19 for water licence fee and land rental rebates as part of the extension of drought relief arrangements.  |
| **Queensland Government Disaster Relief measures** |  |  | Electricity Charges Scheme | The Scheme provides relief from supply charges on electricity accounts used to pump water for farm or irrigation purposes. Financial assistance in the form of a waiver or reimbursement of supply charges is available in drought-declared areas or if the property has been drought-declared.The Queensland Government provides up to $10.4 million in 2018-19 for this Scheme as part of the extension of drought relief arrangements.  |
| **Commonwealth Government Risk Management measures** | Managing Farm Risk Program | Department of Agriculture and Water Resources  | Rebate | This Program provides rebates for advice and assessments to help farmers prepare and apply for a new insurance policy that assists with the management of drought and other production and market risks. A one-off rebate will be for half of the costs incurred by eligible farm businesses, up to a maximum of $2,500.  |
| **Commonwealth Government Risk Management measures** | Farm Management Deposits Scheme | Australian Tax Office | Risk management tool to assist farmers in dealing with uneven income | This Scheme allows eligible primary producers to set aside pre-tax income from primary production in years of high income, which they can draw on in future years to manage their financial risk and meet business costs in low-income years by building up cash reserves.  |
| **Commonwealth Government Risk Management measures** | Farm Business Concessional Loans Scheme | Regional Investment Corporation | Drought loans to prepare for drought, manage and recover from the effects of drought, refinance existing debt and access new debt for operating expenses and capital  | * Up to $2 million
* Maximum loan terms of 10 years
* 3.58% variable interest rate
* Repayment structure: first 5 years interest only, then principal and interest for remainder of the 10-year term. After 10 years, the farm business can refinance any remaining balance with a commercial lender.
 |
| **Commonwealth Government Risk Management measures** | Farm Business Concessional Loans Scheme | Regional Investment Corporation | Farm investment loans to refinance existing debt, enhance productivity, pay for operating expenses or capital and fund drought-related activities | * Up to $2 million
* Maximum loan terms of 10 years
* 3.58% variable interest rate
* Repayment structure: first 5 years interest only, then principal and interest for remainder of the 10-year term. After 10 years, the farm business can refinance any remaining balance with a commercial lender.
 |
| **Commonwealth Disaster Relief measures** | Rural Financial Counselling Service | Department of Agriculture and Water Resources (Cth) | Financial counselling service | Free rural financial counselling to farmers, fishingenterprises, forestry growers and harvesters, andsmall, related businesses |
|  | Farm Household Allowance | Department of Human Services | Payments for farming families in financial hardship | Paid fortnightly at a rate equivalent to Newstart (or Youth Allowance if under 22 years). Access up to 3 years of payment, plus a health card and a dedicated caseworker. |
|  | Farm Business Concessional Loans Scheme | Regional Investment Corporation | Drought loans to prepare for drought, manage and recover from the effects of drought, refinance existing debt and access new debt for operating expenses and capital  | * Up to $2 million
* Maximum loan terms of 10 years
* 3.58% variable interest rate
* Repayment structure: first 5 years interest only, then principal and interest for remainder of the 10-year term. After 10 years, the farm business can refinance any remaining balance with a commercial lender.
 |
|  |  |  | Farm investment loans to refinance existing debt, enhance productivity, pay for operating expenses or capital and fund drought-related activities | * Up to $2 million
* Maximum loan terms of 10 years
* 3.58% variable interest rate
* Repayment structure: first 5 years interest only, then principal and interest for remainder of the 10-year term. After 10 years, the farm business can refinance any remaining balance with a commercial lender.
 |
| **Joint Commonwealth-Queensland Disaster Relief measures for farmers** | Disaster Recovery Funding Arrangements (DRFA) | Department of Agriculture and Fisheries  | Freight Subsidies for Primary Producers | Freight subsidies of up to $5,000 per disaster event for eligible primary producers. Freight subsidies may be made available for moving materials such as emergency fodder for livestock to the primary producer’s home property, building, fencing materials, machinery and equipment, and animals purchased for restocking as a result of the disaster.  |
|  |  | Queensland Rural and Industry Development Authority | Disaster Assistance (Primary Producers) Loans | Concessional loans to assist primary producers whose assets have been significantly damaged as a direct result of an eligible disaster. The loan will assist in re-establishing normal operations and covering costs.* Low interest loans up to $250,000.
* Maximum 10-year term.
* Interest rate dependent on eligible disaster (ranging 1.16% to 1.37% annually).
 |
|  |  | Queensland Rural and Industry Development Authority | Disaster Assistance (Essential Working Capital) Loans Scheme | Concessional loans are provided to assist primary producers with essential working capital expenses.* Low interest loans up to $100,000.
* Maximum 10-year team.
* Interest rate dependent on eligible disaster (ranging 1.16% to 1.37% annually).
 |
|  |  | Queensland Rural and Industry Development Authority | Special Disaster Assistance Recovery Grants | Recovery grants up to assist eligible primary producers with clean up and reinstatement costs.Normally the grants are either $10,000 or $25,000 for an exceptional circumstances grant. The grant amount increased to $75,000 for the 2019 Northern Queensland floods and then only for primary producers, small business had the grant increased to $50,000.  |

##

## Insurance duty relief on farm yield insurance

There is a general consensus among economists that stamp duties are inequitable and one of the least efficient ways for governments to raise revenues. Numerous studies have recommended eliminating stamp duties on all transactions, including insurance, and replacing the foregone revenue with alternative taxes that are more equitable and less distortionary. In recent history state governments, including Queensland’s, have made significant changes to the structure of stamp duties. This has included removing duties on particular categories of transactions.

The removal of insurance duties on farm yield insurance is justified within the context of a broader reform package aimed at eliminating stamp duties on all transactions and replacing the revenues with alternative taxes. This would constitute a major reform requiring significant design and implementation challenges to be addressed.

In this section we focus on the specific policy of abolishing insurance duty on farm yield insurance. This policy is consistent with the broader idea that abolishing stamp duties is good for the economy. However, as emphasised by the Henry Tax Review (2009) [[36]](#footnote-37) piecemeal tax reform is not ideal and may in fact be counterproductive. Below we address the issue of whether abolishing insurance duty on farm yield insurance, in isolation of other tax reforms, can be justified.

In a review of measures aimed at increasing the uptake of MPCI in New South Wales IPART (2016) considered waiving insurance duty. IPART did not recommend waiving insurance duty on MPCI, which was already levied at a concessional rate of 2.5 per cent, arguing that the impact would be immaterial to the uptake rate.[[37]](#footnote-38) This conclusion may be less applicable to Queensland in the current environment where the insurance duty rate is 9 per cent and other state have moved to reduce or waive insurance duties on farm yield insurance.

Insurance duties on farm yield insurance generate a small amount of revenue for the government. On its own, this is not a strong argument for eliminating insurance duties on these transactions. From a policy-makers perspective it is important to make a case for why the tax treatment of farm yield insurance should be different to other types of insurance and, for that matter, to other transactions that currently attract duty.

Insurance duty on farm yield insurance products drive a wedge between the price paid by farmers and the price received by providers. The economic cost of such insurance duties depends very much on the extent to which the uptake of insurance falls in response to the tax. In the context of insurance of farm yields, insurance duty may result in:

* Under-insurance with farmers taking on less insurance than would have been optimal in the absence of the tax; and
* Farmers bearing risks that could be more effectively borne by others.

A reasonable generalisation is that low-income farmers are less able to bear yield risk than high-income farmers, yet their incidence of under-insurance is likely to be greatest. This means that as a revenue raising device insurance duty on farm yield insurance products scores poorly on both economic efficiency and equity grounds.

Insurance duties on farm yield insurance will impact the prices of agricultural products in two ways. Firstly, these taxes are a direct business cost that the farmer will seek to pass on to customers in the form of higher prices. Secondly, the distortionary impact of insurance duties will be reflected in the adoption of second-best risk management strategies by farmers, which will hinder their ability to reduce the volatility of their cash flows. Other things equal required rates of return in the farm sector will be relatively high to compensate farmers for the risk they are bearing. This will result in under-investment in the sector, which in turn means that farm production will be less than optimal and that the prices of agricultural commodities will be higher than optimal.

Below we set out two key arguments for removing insurance duties on farm yield insurance: the first relates to the sector’s competitiveness and the second to a gap in the market for yield insurance that covers key climate risks, such as drought, that are critical for the Queensland farm sector.

#### Competitiveness

The direct and indirect impact of insurance duties on farm yield insurance will be exacerbated if competitors of the impacted farmers are not subject to the same tax. For example, if a wheat farmer in Queensland pays insurance duty on yield insurance but a wheat farmer in NSW does not pay insurance duty on yield insurance then, other things equal, the wheat farmer in Queensland is at a competitive disadvantage to the wheat farmer in NSW. Similar arguments can be made in reference to overseas farmers.

#### Market gap

The uptake of named peril insurance in Queensland (and Australia, more generally) appears to be relatively high (see section 3.1.1). This is likely to reflect a number of factors, including:

* Insurance providers are able to structure cost-effective products because moral hazard and adverse selection issues are not important and the risks covered are amenable to quantification and can be hedged;
* Farmers may have greater access to credit if they have insurance coverage; and
* The products are relatively easy to understand and to purchase.

Other things equal, the uptake of named peril insurance will be less than optimal if it is taxed. The degree of distortion that a tax introduces to the market for named peril insurance depends on supply and demand conditions in that market. A reasonable expectation is that abolishing insurance duty on named peril insurance will increase demand for the product.[[38]](#footnote-39) It is important to recognise that the market distortion introduced by insurance duty on named peril insurance may be comparable to the distortions introduced by insurance duty on other types of insurance. This means that making a special case for abolishing insurance duties on named peril insurance on those grounds is less compelling than on the basis of the competitiveness argument.

In recent years Queensland farmers have dealt with serious climate risks, including long periods of drought and catastrophic floods. Multi-peril insurance has the potential to be a very important risk management tool for Queensland farmers because it can help manage farm yield risk due to climate events. Despite its potential usefulness, the uptake of multi-peril insurance in Queensland is very low. The explanation for this situation is that insurers find it difficult to structure cost-effective products. In contrast to named peril insurance the administrative and reinsurance costs associated with multi-peril insurance are high. The market for multi-peril insurance is susceptible to moral hazard and adverse selection issues and loss adjustment costs are likely to be high. These factors, together with the expectation that risks such as drought tend to be high and systemic in Queensland and Australia, mean that reinsurance costs are commensurately high.

A market prone to adverse selection and moral hazard issues cannot operate efficiently to reallocate farm risk in a socially optimal manner. Market failure of this type usually requires government intervention to assist the market function more efficiently and unlock economic benefits that accrue more broadly than to the market participants.

In the case of climate risks, such as drought and floods, a specific impact of market failure resulting in under-insurance of farm yield risk is a greater call on government to support the farm sector directly and indirectly in the aftermath of a catastrophic event. The availability of government support in such circumstances raises two key issues:

* To what extent does government support to farmers inhibit the development of the farm insurance market?
* Can the government generate a higher return on its investment if a portion of the support it provides the farm sector is re-directed to help develop the farm insurance market?

Insurance duty on multi-peril insurance products can be regarded as negative support for the market by the government. A legitimate question for the Queensland government to consider is the extent to which insurance duty of 9 per cent constrains the uptake of multi-peril insurance. A lack of data relating to the price of multi-peril insurance and the uptake of such insurance means that it is difficult to estimate the sensitivity of demand for multi-peril insurance to the price. Such data is not available even in those Australian states where insurance duties on farm insurance have been recently abolished.

We can be reasonably confident that the incidence of the insurance duty does not fall entirely on the farmer so that abolishing the tax will reduce the price of multi-peril insurance by something less than 9 per cent.[[39]](#footnote-40) Our working assumption is that, on its own, abolishing insurance duties on multi-peril insurance is unlikely to result in a significant increase in the uptake rate in the near term. However, any increase in the uptake of multi-peril insurance is to be welcomed and the abolition of insurance duties on multi-peril insurance can be justified on the basis that:

* Government support for the market is warranted to help redress a market failure;
* Queensland farmers are at a potential competitive disadvantage relative to their counterparts in other states that have abolished insurance duty on farm insurance; and
* The low uptake of multi-peril insurance in Queensland means that government revenue from this source is currently insignificant.

As discussed earlier the uptake of MPCI is hindered by a range of factors. The available evidence suggests that abolishing insurance duty on MPCI is unlikely to result in a large uptake without further government intervention. This will mean that key risks facing Queensland farmers, like drought and flood, will remain difficult to manage and that the reliance by farmers on government assistance to deal with catastrophic events is unlikely to be reduced.[[40]](#footnote-41)

We do not have sufficient data from other Australian states that have abolished insurance duties on farm yield insurance to draw any inferences for Queensland. We can report that in South Australia, where insurance duties have been abolished just on MPCI, the government expects an uptake of about 100 policies. In their analysis of NSW insurance duty on MPCI CIE (2016) provide implicit and explicit estimates of the elasticity of demand for MPCI ranging from 0.4% to 1% in absolute value. According to these estimates a 1% decrease in the price of MPCI is expected to increase demand by something in the order of 0.4% to 1%. This is a very modest response, especially considering that (a) the base number of MPCI policies is very low and (b) the expected price reduction for Queensland policies is less than the 9 per cent rate of insurance duty.

US evidence suggests that 1% increase in the premium per acre for corn yield insurance results in a 0.95% decrease in demand for that insurance (a similar result was found for subsidies – a 1% increase in the subsidy per acre resulted in a 1% increase in demand).[[41]](#footnote-42) Another US study found that depending on the measure of demand used the elasticities of demand for corn ranged from about 0.1% to 0.9% and for soybeans from 0.8% to 1.6%.[[42]](#footnote-43)

The available empirical evidence suggests that the elasticity of demand for MPCI is relatively low. However, it is important to acknowledge that borrowing elasticity estimates based on US data may be problematic because the US market is a relatively mature with relatively high uptake rates while the Queensland market is almost non-existent.

## Other policy options

In this section we consider policy options other than abolishing insurance duty on farm yield insurance that the state government might consider to assist the farm sector better manage risk.

#### Insurance-specific

Hertzler (2005) reports that MPCI has never managed to become a commercially viable product around the world and that “*in general, countries that continue to subsidise agriculture also continue to subsidise their crop insurance programs*”. Australia is an exception to this trend. Mahul and Stutley (2010) report that 63 percent of countries surveyed provide premium subsidies on crop insurance, including the US, Canada, Japan, Italy and Spain, but that “*Australia and New Zealand are conspicuous for the absence of government financial intervention in agricultural crop and livestock insurance*”.

Previous Australian studies have not supported government subsidisation of MPCI programs. The Queensland Government may want to conduct a fresh investigation into the costs and benefits of subsidising MPCI programs to consider any new evidence. While subsidies have stimulated the uptake of MPCI in other countries the economic cost, both in terms of the direct impact on government budgets and indirect impact in the form of market distortions, may be excessively large relative to the benefits. Just as taxes distort markets and lead to losses in economic welfare so too do subsidies, which can be thought of as negative taxes. Governments finance subsidies by raising revenues via taxes or by reducing other government expenditures, which introduces distortions in other parts of the economy. If the subsidy is used to deal effectively with a market failure in the market for MPCI, which implies that reliance on the subsidy will diminish over time, then it may result in a net economic benefit to society. However, if the subsidy does not address the market failure effectively then it may introduce additional distortions into the economy and reduce societal economic welfare. The prime example in this context is that the government intervention may actually impeded the development of the private market for insurance.

A theme in the literature is that subsidising premiums on farm yield insurance is unlikely to be warranted. ABARES (2012) concluded that the evidence suggests, “*there is no economic case for government subsidisation of agricultural insurance premiums*”. The World Bank study authored by Mahul and Stutley (2010) concludes that their “*survey does not support the argument that premium subsidies are necessary if farmers and livestock breeders are to purchase voluntary crop and livestock insurance*”. The findings of the Productivity Commission (2009) inquiry into government drought support also did not support subsidized insurance schemes, concluding that such schemes “*will impede the development of more efficient private sector arrangements for sharing production risk in agriculture*”.[[43]](#footnote-44)

As part of its review of MPCI incentive measures IPART (2016) was required by the New South Wales government to design a premium subsidy and to assess this against the New South Wales Drought Program Evaluation Framework. IPART made it clear that they did not recommend ongoing subsidies for MPCI because they did not find “*evidence of conditions that would lead to be an under-provision of multi-peril crop insurance as a result of a market failure*”.[[44]](#footnote-45) In fulfilment of the government’s requirements IPART settled on a temporary subsidy that:

* Applied for a specified 5-year period;
* Provided a 50 per cent subsidy in years 1 and 2, capped at $30,000 per farm business per year; and
* Provided a 25 per cent subsidy in years 3 to 5, capped at $15,000 per farm business per year.

IPART assessed that the temporary subsidy complied with the Drought Program Evaluation Framework and that it could increase the uptake of MPCI from less than 1 percent to around 16%. However, the proposed subsidy was not expected to provide saving to the government because “*Government expenditure would increase, as the expenditure on the subsidy would more than offset any savings in drought assistance*”.

KPMG’s assessment is that if the Queensland government wanted to consider providing a temporary subsidy to help kick-start the MPCI market further analysis will be required.

#### Other policies

Studies of farm risk management in Australia have not found evidence of obvious market failures that significantly hinder farm risk management in Australia (e.g., Productivity Commission (2009) and IPART (2016)). A fresh examination may be warranted to determine whether the information required by stakeholders, including farmers, insurers and governments, to manage farm risk efficiently and effectively is gathered, distributed and used efficiently. The availability of new digital technologies may provide opportunities to streamline and improve the scope for collecting and sharing information in a timely fashion.

In the context of farm insurance, ABARES (2012) suggest that government intervention in the compilation and provision of information may be justified if the government can do this at a lower cost to society than the private sector. They argue that further investigation is warranted about government playing a role “*in the research and production of missing information or through facilitating arrangements for sharing information that would otherwise be asymmetrically distributed between farmers and insurers*” (p. 28).

Page 48  The Queensland Government is already committing resources to research, information gathering and dissementiation through he Drought and Climate Adaptation Program and the Crop Insurance Research Grants component of the Farm Management Grants Program. In the spirit of the ABARES recommendation, investigation of the return to further investment by the government in this type of program may be warranted. Such an investigation may also examine whether some of the resources used in other state government programs, such as the Drought Relief Assistance Scheme could be more productively re-directed to targeted information generation. Here, the hurdle for government involvement may be less about identifying and addressing some obvious market failure and more about maximising the benefit to society of a given amount of state government expenditure on assisting the farm sector. In this context we can think of the state government’s expenditure on helping the farm sector deal with weather events and natural disasters as being broadly consistent with community expectations and focusing on whether this expenditure can be re-allocated to deliver a better outcome.

Climate change is expected to increase and change the risks confronting the Queensland farm sector. If the farm sector does not continue to adapt and better manage production risk related to weather events then there is likely to be increasing pressure on governments to provide financial assistance. Facilitating adaptation by the farm sector to climate change must remain a priority for governments in structuring assistance to the farm sector. Playing a role in the generation, collection and dissemination of information relating to farm risks related to climate may be an effective way for the government to help the farm sector to best prepare for such risks and to manage the outcomes once they occur.

Appendices

|  |  |  |
| --- | --- | --- |
| Organisation |  | Date |
| **Insurance groups** | Allianz | 5 December 2018 |
|  | Primacy Underwriting Agency | 13 December 2018 |
|  | insurance Council of Australia | 13 December 2018 |
|  | CelsiusPro | 17 December 2018 |
|  | Latevo | 17 December 2018 |
|  | Swiss Re | 17 December 2018 |
|  | QBE | 17 January 2019 |
| **OSR/Treasury** | NSW Treasury | 23 January 2019 |
|  | Revenue NSW | 31 January 2019 |
|  | Queensland Rural and Industry Development Authority | 21 February 2019 |
|  | State Revenue Office (Victoria) | 28 February 2019 |
|  | Queensland Office of State Revenue | 3 April 2019 |
| **Agri-industry groups** | Queensland Farmers' Federation | 5 December 2018 |
|  | AgForce Queensland | 10 January 2019 |
|  | Grain Growers Limited | 30 January 2019 |
|  | Cotton Australia | 20 February 2018 |
|  | Growcom | 28 February 2018 |

 Appendix 1 – Consultations

\*Note consultations were also held directly with primary producers who utilised agricultural insurance to understand their viewpoints on the subject.

Appendix 2 – Technology and digital solutions improving insurance uptake

Australian agriculture must adapt to remain competitive in a changing global landscape. Environmental, social and governance expectations on business are increasing as regulators, insurers, investors, customers and communities require greater transparency over non-financial risks. The farmers operating in this world of increased expectations and pressures do so all the while battling with the impacts of climatic conditions and the need to ensure their operation endures.

Reducing risk is key to addressing volatility, which is the sector’s greatest challenge in attracting investment for expansion and adoption of new management approaches and technology, which are critical tools to address the self-reliance of industry. The regularity of farmer earnings is largely a function of water and climate, which can lead to vast differences in yield year-on-year. The development of innovative financial instruments to reduce this risk are therefore crucial, and both government and industry should work together to create new models to these ends. As consultations with the insurance industry and Agricultural Industry Organisations has revealed better data sets and digital tools are needed to enable these new financial instruments – such a parametric or yield insurance to embed.

The USA International Development Agency (USADA) notes in its Feed the Future program that the use of digital tools in agricultural insurance has the potential to facilitate increased insurance product uptake, reduce transaction costs, improve efficiency of the insurance process, and increase farm resilience to respond to external shocks while ensuring stability, growth, and sustainability of agricultural value chains[[45]](#footnote-46). Indeed, there have been significant innovation in Africa with smallholder farmers where the rapid adoption of technology is addressing farm viability. The below case study explores this further:

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| **Satellite Technology and Index insurance [[46]](#footnote-47)**The absence of comprehensive rainfall and crop data remains one of the key constraints for scaling up index insurance products. Data are a critical element for index design and determining payouts. Indexes built on a historical dataset of 20 years of data would lead to a more accurate predictive model than indexes built on 5 years of historical data. Unfortunately, rain gauges provide data for localized areas and often do not provide historical weather records of at least 20 years. Satellites have many advantages for index insurance, such as reducing moral hazard and tampering, and providing an independent data source and excellent spatial coverage. While remote sensing technologies are principally used to measure rainfall and vegetation, advances in satellite technology are being made to measure temperature, soil moisture, and evapo-transpiration. * **Remote sensing of rainfall:** Satellite rainfall estimates work by taking images of clouds and inferring rainfall amounts from them. One way to do this is to use infrared images, which work effectively as a ‘heat camera’, inferring information about cloud top temperatures (and their height). In terms of satellite rainfall estimation, there are now several time series of rainfall (e.g., ARC2–African Rainfall Climatology Version 2 and CHIRPS–Climate Hazards Group IR Precipitation Stations) capturing over 30 years of weather data in tropical countries at a resolution of 4 to 10 kms.
* **Remote sensing of vegetation:** Remote sensing of vegetation occurs with many sensors, but most commonly through the use of vegetation indices such as the normalized difference vegetation index (NDVI) or the enhanced vegetation index, which measure the proportional difference between infrared and visible red reflectance, indicating a measure of chlorophyll density, i.e., where vegetation growth is present.
* **Remote sensing of soil moisture:** Also known as evaporative stress index (ESI). ESI can robustly measure vegetative stress before vegetation turns brown and can identify the point in the crop cycle when this occurs. Agricultural extension agents will then have the opportunity to collect information from the field that can improve the model’s performance in the region of interest.

Despite advances in technology, satellite sensors do have shortcomings. Satellite spatial resolution is a challenge, as it is not possible to measure rainfall at a more localized level (i.e., a specific field or village). The ideal approach is to use multiple datasets concurrently with ground observations to bolster certainty that a weather event was significant enough to cause a payout. It is important that the type of tool selected have enough predictive power to provide high value to the insured client. Ultimately, large scale index insurance projects still require a ground network of clients, experts, site visits, and partners for continuous verification and improvement of products, and to crosscheck satellite data.  |

The real-time analysis of risk on a farm-by-farm basis (using technologies leveraging satellite imagery or other sources such as IoT and artificial intelligence) could be the step change that is needed to make products like multi-peril insurance a commercial reality in markets like Australia.

Although technology has its shortcomings, it is acknowledged the use of digital tools alone will not be sufficient to increase access to affordable, quality agricultural insurance. However, if strategically and thoughtfully inserted into State agricultural industry development programs, technology has the potential to multiply the return on investments in sustainable agriculture and food security.[[47]](#footnote-48)

Key capabilities that Government, insurers and industry would need to develop to realise digitally driven solutions towards insurance are:

* Internet of Things enabled data-driven risk assessments based on localised datasets or even leveraging operational data in real-time from farms.
* Ensuring the integration and interoperability of data collection and data warehousing tools through common data standards for insurers and agribusiness.
* A low-cost, fully digitally-enabled insurance platform

The result is the provision of confidence for an investor, debt-provider, insurance company and primary producer who can operate with security in the knowledge that should yields or operations decline, the businesses invested in remain secure and can endure in the face of climatic challenges.

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13. The presence of incentives for individuals to act in ways that incur costs that they do not have to bear (often in the context of insurance). Encompasses those instances where the chance of loss is increased by an **insured**'s carelessness, incompetence, recklessness, indifference to loss or an insured's fraudulent nature. For example, because someone has insured their house against burglary, they may not have the incentive to be careful to protect their property, unless the **insurer** underwrites the risk to allow for this. [↑](#footnote-ref-14)
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15. Department of Agriculture, Water and the Environment 2020, *Managing Farm Risk Program,* Australian Government, accessed 2018/19, <http://agriculture.gov.au/ag-farm-food/drought/assistance/mfrp>. [↑](#footnote-ref-16)
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Selection risk arises when the customer group attracted differs from that which was anticipated, so that situation where consumers deliberately choose a specific insurance due to its price and through that the process the **insurer** underwrites a greater volume of less profitable business than initially expected or planned.

The risk that an insurer’s product attracts worse than average risks is termed selection risk, and generally arises if a significant **risk factor** has not been accounted for in the benefit design or pricing structure**.** This is typically dependent upon the relative pricing and product design of competitors. Also referred to as **adverse selection** and **anti-selection**. [↑](#footnote-ref-17)
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39. It should also be noted that insurance premiums, inclusive of insurance duty, are tax deductible. [↑](#footnote-ref-40)
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